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**AGWMR**  
**(1)**

**2019**





**Marathon  
Petroleum Company LP**

## **Annual Groundwater Monitoring Report Gallup Refinery - 2019**

**Gallup Refinery  
92 Giant Crossing Road  
Gallup, NM 87301  
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**September 15, 2020**





## CERTIFICATION

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For R. Hanks

9/15/20

Date

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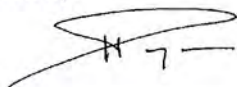


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## LIST OF ACRONYMS

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AC	Alternating Current
AL	Aeration Lagoon
API	American Petroleum Institute
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BW	Boundary Well
COC	Chain of Custody
COD	Chemical Oxygen Demand
DC	Direct Current
DGF	Dissolved Gas Flotation
DO	Dissolved Oxygen
DRO	Diesel Range Organics
DTB	Depth to Bottom
DTP	Depth to Product
DTW	Depth to Water
EP	Evaporation Pond
EPA	Environmental Protection Agency
FT	Foot/Feet
FWGWMP	Facility Wide Groundwater Monitoring Plan
GPM	Gallons per Minute
GRO	Gasoline Range Organics
GWM	Groundwater Monitoring Well
HP	Horse Power
HWB	Hazardous Waste Bureau
IDW	Investigation Derived Waste
ISE	Ion Selective Electrode
LDU	Leak Detection Unit
LPG	Liquefied Petroleum Gas
LTU	Land Treatment Unit
MCL	Maximum Contaminant Level
MPPE	Macro Porous Polymer Extraction
MRO	Motor Oil Range Organics
MTBE	Methyl Tert Butyl Ether
mg/L	Milligrams/liter



## LIST OF ACRONYMS - continued

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MV	Millivolts
MW	Monitoring Well
NAIC	North American Industry Classification System
NAPIS	New American Petroleum Institute Separator
NAPL	Non Aqueous Phase Liquid
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NOD	Notice of Disapproval
NPDES	National Pollutant Discharge Elimination System
OBSM	Oil Bearing Secondary Material
OCD	Oil Conservation Division
OW	Observation Well
ORP	Oxidation Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbon
PSTB	Petroleum Storage Tank Bureau
PVC	Polyvinyl Chloride
PW	Process Well
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
RW	Recovery Well
SMW	Shallow Monitoring Well
SPH	Separate Phase Hydrocarbon
STP	Sanitary Treatment Pond
SVOC	Semi-volatile Organic Compound
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution and Prevention Plan
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbon
µm	Micrometer
UPS	United Parcel Service
VOC	Volatile Organic Compounds
WQCC	Water Quality Control Commission
WWTP	Waste Water Treatment Plant
YTD	Year to Date



## EXECUTIVE SUMMARY

The Annual Groundwater Monitoring Report for 2019 (Report) incorporates field monitoring, sampling, and inspection of active wells located on the facility. Analytical data and field notes are incorporated into this report to show any changes or discoveries of various constituents found in the groundwater collected for sampling. On February 15, 2012, Groundwater Discharge Permit GW-032 was rescinded by the Oil Conservation Division (OCD) of New Mexico. We are; however, required to continue to abate pollution of groundwater pursuant to 19.15.30 NMAC (Remediation) under case number AP-111 with remediation activities already in place under Groundwater Discharge Permit GW-032. Monitoring and field work activities conducted for 2019 followed the guidelines of the “Approval with Modifications, Annual Facility-Wide Ground Water Monitoring Report: Gallup Refinery 2019, HWB-WRG-19-012”, dated November 15, 2019 from New Mexico Environmental Department Hazard Waste Bureau (NMED HWB). New monitoring wells (MKTF-46, MKTF-47, MKTF-48, MKTF-49, MKTF-50, and OW-58A) were installed in 2019 and have been added to the most recent Facility-Wide Ground Water Monitoring Work Plan. Although the wells were not yet included in an approved Monitoring Work Plan in 2019, groundwater samples were collected at these wells and the results are included in this Report. The well completion logs are included in Appendix A. The survey data for the new wells is included in Appendix B.

## GROUNDWATER MONITORING

There are 111 monitoring wells located throughout the refinery property that are subject to the ground water monitoring program. The groundwater program consists of a number of sampling locations, target analyses, and monitoring frequencies that include quarterly, semi-annual, and annual. A brief analytical summary is included below while a more detailed summary is discussed in Section 7. In addition to the monitoring wells, there are three leak detection units (LDUs) at the new API Separator (NAPIS). The monitoring wells and LDUs have been grouped as follows:

GROUP A	GROUP B	GROUP C	GROUP D	GROUP E
BW-1A, 1B, 1C	GWM-1, 2, 3	OW-13, 14, 29, 30	PW-2, 3, 4	MKTF-1 thru
BW-2A, 2B, 2C	NAPIS-1, 2, 3, KA-3	OW-50, 52, 53, 54	OW-1, 10	MKTF-50
BW-3A, 3B, 3C	OAPIS-1	OW-55, 56, 57, 58	OW-11, 12	
BW-4A, 4B	East LDU, West LDU, Oil Sump LDU	OW-58A, 61, 63, 64		
BW-5A, 5B, 5C	STP1-NW, STP1-SW	OW-65		
MW-1, 2, 4, 5	OW-59, 60, 62	RW-1, 2, 5, 6		
SMW-2, 4				



## **GROUP A - WELLS**

There are 14 boundary wells located on the western and northwestern boundary of the refinery property.

- No benzene, toluene, ethylbenzene, or total xylenes (BTEX) or methyl tert-butyl ether (MTBE) constituents have been detected in any of the boundary wells, with the exception of MTBE in samples collected from BW-5B and BW-5C. None of the concentrations for MTBE exceeded applicable standards in BW-5B or BW-5C.
- Fluoride exceeded the applicable standard in BW-1C, BW-2B, and BW-2C.
- Chloride exceeded the applicable standard in BW-5B and BW-5C.
- Gasoline range organics (GRO) exceeded the applicable standard in BW-5C.
- Arsenic (total and dissolved) exceeded the applicable standard in BW-4B.
- Iron exceeded the applicable standard in BW-2B, BW-2C, BW-3C, BW-4B, BW-5B, and BW-5C.
- Manganese (total) exceeded the applicable standard in BW-4B.
- Uranium exceeded the applicable standard (not regulated by RCRA) in samples collected at BW-4B, BW-5B, and BW-5C.
- Acetone was detected in low concentrations in samples collected at BW-4B, BW-5B, and BW-5C.
- Benzoic acid was detected in low concentrations in BW-4B and BW-5C.
- Bis(2-ethylhexyl) phthalate exceeded the applicable standard in the sample collected from BW-5C.
- 1,1-Dichloroethane was detected in low concentrations in the samples from BW-5C.
- Carbon disulfide and di-n-octyl phthalate were detected in low concentrations in BW-4B.
- 1,4-dioxane was detected in a concentration below the applicable standard in the sample collected from BW-5C.

There are six wells that monitor the groundwater in the area of the land treatment unit (LTU).

- No BTEX or MTBE were detected in any of the MW wells.
- Benzene was detected in a low concentration in SMW-2. SMW-2 continues to have a low concentration of MTBE below the applicable standard.
- Low concentrations of fluoride, chloride, and sulfate were detected in the MW wells in 2019. DRO, GRO, and MRO were not detected in the MW wells.
- In SMW-2, chloride and sulfate concentrations have exceeded applicable standards since 2011. In 2019, the nitrite concentration exceeded the applicable standard. Low concentrations of fluoride, chloride, nitrate, and sulfate were detected in SMW-4. GRO has been detected in SMW-2 above the applicable standard since 2011.
- Metals (total and dissolved) were detected in concentrations below applicable standards in all of the MW wells.
- Manganese and uranium (total and dissolved) were detected in the samples from SMW-2 above applicable standards. The manganese concentration (total) and uranium concentration (dissolved) in the sample from SMW-4 exceeded applicable standards.
- Benzoic acid was detected in low concentrations in MW-1, MW-2, MW-4, MW-5, and SMW-4.
- Acetone was detected in a low concentration in the sample collected from SMW-4.

## **GROUP B - WELLS**

There are 13 monitoring wells and three leak detection units (LDUs) in Group B.



### GWM-1, GWM-2, and GWM-3

- No samples have been collected from GWM-1 since the third quarter 2015 due to the detection of separate phase hydrocarbon (SPH).
- No groundwater was present in GWM-2 and GWM-3 in 2019.

### NAPIS-1, NAPIS-2, NAPIS-3, and KA-3

- Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarter gauging and sampling event. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event.
- SPH was detected in NAPIS-1 in the second, third, and fourth quarters of 2019 with the maximum thickness recorded in the fourth quarter (0.20 feet).
- Benzene concentrations in NAPIS-2 exceeded the applicable standard in 2019. In NAPIS-2, MTBE concentrations in 2019 did not exceed the applicable standard.
- In the samples collected from NAPIS-3, benzene, ethylbenzene, and MTBE were detected in concentrations below the applicable standards.
- The benzene concentrations in KA-4 exceeded the applicable standard in all four quarters. The reported concentrations of ethylbenzene, total xylenes, and MTBE in KA-4 did not exceed applicable standards.
- Fluoride concentrations exceeded the applicable standard in NAPIS-2 in all four quarters. Chloride concentrations exceeded the applicable standard in NAPIS-3 in all four quarters.
- DRO was detected above the applicable standard in NAPIS-2 and KA-3. GRO was detected above the applicable standard in NAPIS-2, NAPIS-3, and KA-3. MRO was not detected in NAPIS-2, NAPIS-3, or KA-3 wells.
- In NAPIS-2, barium (total), iron (total and dissolved), and manganese (total and dissolved) were detected at concentration levels exceeding applicable standards. In NAPIS-3, iron (total), manganese (total), and uranium (total and dissolved) were detected at concentration levels exceeding applicable standards. Manganese (total and dissolved) and iron (total) was detected in KA-3 at concentration levels exceeding applicable standards.
- In NAPIS-2, 1-methynaphthalene and 2-methylnaphthalene were detected at concentration levels exceeding applicable standards. In KA-3, 1-methynaphthalene was detected at a concentration exceeding the applicable standard.

### East LDU, West LDU, and Oil Sump LDU

- None of the LDUs were gauged or sampled during the first quarter. Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarterly gauging and sampling. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event.
- No water was detected in the Oil Sump LDU during the gauging events.
- East LDU samples were reported to contain benzene, DRO, and GRO concentrations exceeding applicable standards. Detectable concentrations of toluene, ethylbenzene, and total xylenes were reported in the samples. Low concentrations of MTBE were detected in the first and third quarter.
- In the first and second quarters, the samples from West LDU reported benzene concentrations exceeding the applicable standard. West LDU samples were reported to contain DRO and GRO concentrations exceeding applicable standards. Detectable concentrations of ethylbenzene, total xylenes, and MTBE were reported in the samples.
- Chromium (total), iron (total and dissolved), and manganese (total and dissolved) were detected in concentrations exceeding applicable standards in the East LDU. The samples collected from the West LDU had chromium (total and dissolved), iron (total and dissolved), and manganese (total and dissolved) concentrations exceeding applicable standards.



- Concentrations of the organic compounds 1,2,4-trimethylbenzene, naphthalene, 1-methylnaphthalene exceeded applicable standards in the East LDU. Low concentrations of the organic compounds 1,2,4-trimethylbenzene, 1-methylnaphthalene, acetone, sec-butyl benzene, and trichloroethene were detected in the West LDU.

#### OAPIS-1

- Benzene and MTBE have exceeded applicable standards since 2013. Detectable concentrations of toluene, ethylbenzene, and total xylenes were reported in the samples.
- Concentrations of fluoride, chloride, DRO, and GRO have shown exceedances in OAPIS-1 since 2013.
- Arsenic, iron, manganese, and uranium concentrations exceeded applicable standards in OAPIS-1.
- Low concentrations of organic compounds were detected in OAPIS-1. The reported concentrations of 1-methylnaphthalene and bis(2-ethylhexyl) phthalate exceeded applicable standards.

#### STP1-NW, STP1-SW, OW-59, OW-60, and OW-62

- STP1-SW was not gauged in 2019. Access to the STP1-SW was not permitted during 2019 due to high concentrations of H<sub>2</sub>S in the atmosphere.
- BTEX and MTBE was not detected in STP1-NW in 2019. BTEX was not detected in OW-59 in 2019. A low benzene concentration was detected in OW-60. Low concentrations of MTBE were detected in OW-59 and OW-60.
- Chloride and nitrate concentrations exceeded applicable standards in STP1-NW. Chloride and sulfate concentrations exceeded applicable standards in OW-59. Chloride, nitrite, nitrate, and sulfate concentrations exceeded applicable standards in OW-60.
- DRO, GRO, and MRO were not detected in STP1-NW and OW-60 in 2019. DRO and GRO were detected above the applicable standards in OW-59. MRO was not detected in OW-59.
- The chromium (total) concentration exceeded the applicable standard in OW-60. Iron (total) concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60. Manganese (total) concentrations exceeded the applicable standard in OW-59 and OW-60. Uranium (total) concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60.
- Uranium (dissolved) concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60.
- Low concentrations of organic compounds acetone, bis(2-ethylhexyl) phthalate, and 1,2,4-trimethylbenzene, were detected during the monitoring events.

#### **GROUP C WELLS**

Group C wells include 16 observation wells and four recovery wells.

#### OW-13, OW-14, OW-29, and OW-30

- A low concentration of benzene was reported in OW-13. Low concentrations of MTBE continue to be detected below the applicable standard.
- The benzene and MTBE concentrations for OW-14 were above applicable standards for all four quarters. In the second quarter, the ethylbenzene concentration slightly exceeded the applicable standard in OW-14. There were detectable concentrations of toluene and total xylenes.
- A low concentration of ethylbenzene was reported for OW-29. The MTBE concentrations were above the applicable standard.
- No detectable concentrations of BTEX were reported in 2019 for OW-30. MTBE concentrations were reported above the applicable standard.



- DRO was detected above the applicable standard in OW-14 and OW-30. GRO was detected above the applicable standard in OW-13, OW-14, OW-29, and OW-30. MRO was not detected in any of the wells.
- Barium, iron, and manganese concentrations exceeded applicable standards in OW-14. Manganese and uranium concentrations exceeded applicable standards in OW-29. Uranium concentrations exceeded the applicable standard in OW-30.
- Naphthalene and 1-methylnaphthalene concentrations exceeded applicable standards in OW-14.

#### OW-50, and OW-52

- Low concentrations of benzene were detected in OW-50 and OW-52 in the second quarter 2019. Toluene, ethylbenzene, total xylenes, DRO, GRO, and MRO have not been detected in OW-50 or OW-52 since 2010. Low concentrations of MTBE have been detected in both wells in 2016, 2017, 2018, and 2019.
- Low concentrations of total and dissolved arsenic, barium, chromium, iron, lead, manganese, mercury, uranium and zinc were detected in OW-50 and OW-52.
- Low concentrations of benzoic acid, 1,2-dichloroethane, and acetone were detected in OW-50 and OW-52.

#### OW-54, OW-55, and OW-56

- In OW-54 and OW-55, benzene and MTBE concentrations exceeded applicable standards during all four quarters. Toluene, ethylbenzene, and total xylenes were detected at concentrations below applicable standards. In OW-56, there were no detectable concentrations of benzene, toluene, and MTBE that exceeded applicable standards.
- DRO and GRO exceeded applicable standards in OW-54, OW-55, and OW-56. GRO concentrations exceeded the applicable standard in all wells. MRO was not detected in any of the wells.
- Chloride concentrations for OW-55 and OW-56 exceeded the applicable standard.
- Iron and manganese concentrations exceeded applicable standards in OW-54. Iron concentrations exceeded applicable standards in OW-55 and OW-56.
- Reportable concentrations of 1,2,4-trimethylbenzene, naphthalene, 1-methylnaphthalene, and phenol exceeded applicable standards in OW-55.
- Reportable concentrations of 1,2-dichloroethane exceeded applicable standards in OW-56.

#### OW-57, OW-58, and OW-58A

- Observation well OW-58A was installed during the fourth quarter 2019 as a twin well adjacent to OW-58. NMED requested the installation of OW-58A near OW-58 to address its concern that the water level measured in OW-58 was above the top of the well screen and could hinder the investigation of SPH. OW-58A was sampled in December 2019.
- BTEX and MTBE was detected in the wells. Benzene and MTBE concentrations exceeded applicable standards in OW-57, OW-58, and OW-58A. Ethylbenzene concentrations exceeded the applicable standard in OW-58. The concentration of total xylenes in OW-58A exceeded the applicable standard.
- DRO and GRO concentrations exceeded applicable standards in OW-57, OW-58, and OW-58A. MRO was not detected in the wells.
- Barium, iron, and manganese concentrations exceeded applicable standards in OW-57 and OW-58. Iron and manganese concentrations exceeded applicable standards in OW-58A.
- Low concentrations of acenaphthene, benzoic acid, bis(2-ethylhexyl) phthalate, carbazole, di-n-octyl phthalate, fluorene, 2-methylphenol, 3+4-methylphenol, phenanthrene, 1,4-dioxane, and dibenzofuran were detected. Reported concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and phenol exceeded applicable standards.



- Low concentrations of acetone, isopropylbenzene, 4-isopropyltoluene, n-butylbenzene, n-propylbenzene, and sec-butylbenzene were detected. Reported concentrations of 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene exceeded applicable standards.

#### OW-61, OW-63, OW-64, and OW-65

- OW-61, OW-63, OW-64, and OW-65 were installed in March 2018 during the French Drain release investigation. OW-61 and OW-65 contained SPH in 2019 and were not sampled. OW-64 contained SPH in the first quarter and was not sampled. OW-64 was sampled during the second, third, and fourth quarter 2019.
- BTEX and MTBE were detected in OW-63. BTEX was detected in OW-64. MTBE was not detected in OW-64. Benzene concentrations exceeded the applicable standard in OW-63 and OW-64. Ethylbenzene concentrations exceeded the applicable standard in OW-63.
- DRO and GRO concentrations exceeded applicable standards in OW-63 and OW-64. MRO was not detected in the wells.
- The fluoride concentrations reported from OW-64 exceeded the applicable standard.
- Arsenic, barium, iron, and manganese concentrations exceeded applicable standards in the samples from OW-63. Iron and manganese concentrations exceeded applicable standards in OW-64.
- Reported concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and phenol exceeded applicable standards in OW-63. Reported concentrations of 1,2,4-trimethylbenzene in OW-64 exceeded applicable standards.

#### RW-1, RW-2, RW-5, and RW-6

- None of the recovery wells were gauged or sampled in 2019 due to the installation of a fluid recovery pump in each well.

### **GROUP D WELLS**

The Group D wells can be found within the refinery property and include three process/production (i.e., water supply) wells and four observation wells.

#### PW-2, PW-3, and PW-4

- PW-2 was not sampled in 2019. PW-3 and PW-4 were sampled quarterly.
- No BTEX or MTBE constituents were detected in PW-3 and PW-4.
- Sulfate was detected above the applicable standard in PW-3.
- Low concentrations of arsenic, barium, iron, manganese, mercury, selenium, uranium, and zinc were detected in the wells at levels below applicable standards.
- The organic constituents, acetone, benzoic acid, bis(2-ethylhexyl) phthalate, and 1,2,4-trimethylbenzene were detected in concentrations below applicable standards.

#### OW-1, OW-10, OW-11, and OW-12

- BTEX was not detected in OW-1 and OW-10 in 2019. MTBE was detected in low concentrations below the applicable standard in both wells. Benzene and ethylbenzene were detected in low concentrations in OW-11 and OW-12 in 2019. MTBE was not detected in OW-11 and OW-12.
- Low concentrations of anions were detected in OW-1 throughout 2019 at concentration levels below applicable standards. The samples collected from OW-10 reported concentrations above the applicable standard for chloride. Fluoride and sulfate concentrations exceeded applicable standards in OW-11.



- DRO, GRO, and MRO were not detected in OW-1, OW-10, OW-11, and OW-12.
- The metals analysis for OW-1 and OW-10 reported uranium concentrations above the applicable standard. In OW-1, iron and manganese concentrations exceeded the applicable standards. In the groundwater sample from OW-11, the uranium concentrations were reported above the applicable standard.
- No organic compounds were detected above applicable standards in the groundwater samples collected from OW-1, OW-10, OW-11, and OW-12.

### **GROUP E WELLS**

At the beginning of 2019 Group E wells consisted of 45 monitoring wells that monitor the extent of a hydrocarbon seep discovered in 2013 in an isolated area approximately 100 yards west of the crude tanks T-101 and T-102.

During the fourth quarter of 2019 five new MKTF wells were installed to provide additional groundwater monitoring up-gradient of existing monitoring wells. The five new wells (MKTF-46 thru MKTF-50) will be added to the facility wide groundwater monitoring plan.

The MKTF wells are sampled quarterly. BTEX, MTBE, DRO, GRO, total and dissolved metals and several VOCs and SVOCs have been detected in many of the wells above the referenced standards. See Tables 8.17 through 8.17.5 (Section 8) for a complete list of constituents analyzed.

### **ADDITIONAL SITES MONITORED**

#### **Evaporation Ponds EP-1 through EP-12B**

- Benzene was detected in evaporation ponds EP-2 and EP-12B. Concentrations above the applicable standard were detected in evaporation pond EP-2 in the first semi-annual sampling event. Toluene was detected at concentration levels below the applicable standard in evaporation pond EP-2. Ethylbenzene, total xylenes, and MTBE were not detected in the evaporation ponds.
- Concentrations of fluoride, chloride, and sulfate exceeded applicable standards in each evaporation pond. Nitrite concentrations exceeded the standard in evaporation ponds EP-6, EP-7, EP-8, EP-9, EP-11, and EP-12B.
- BOD concentrations exceeded the general requirement of the 20 NMAC 6.2.3103 (<30 mg/L) in each of the evaporation ponds except for EP-7, EP-8, and EP-11.
- COD concentrations exceeded the general requirement (<125 mg/L) in each of the ponds.
- E-Coli concentrations exceeded the applicable standard in EP-2, EP-3, EP-4, EP-12A, and EP-12B.
- Arsenic, iron, manganese, and selenium were detected in concentrations exceeding applicable standards in the ponds.
- The volatile organic compound bromomethane was detected in EP-2 above the applicable standard.
- The semi-volatile organic compounds bis(2-ethylhexyl) phthalate, phenol, and 1,4-dioxane were detected in concentrations exceeding applicable standards in the evaporation ponds.
- Pesticides were not detected in the samples collected from EP-3, EP-12A, and EP-12B.

#### **Outfall STP1 to EP-2**

- Benzene, toluene, ethylbenzene, and total xylenes were detected. MTBE was not detected.



- DRO and GRO concentrations exceeded applicable standards. MRO was not detected.
- BOD and COD concentrations exceeded applicable standards.
- Acetone, bromomethane, 2-butanone, and carbon disulfide were detected in concentrations below applicable standards.
- Iron and manganese were detected in concentrations exceeding applicable standards.

#### **ADDITIONAL APPLICABLE STANDARDS REQUIREMENTS**

The Discharge Permit was rescinded by NM-OCD on February 15, 2012; however, Gallup is still required to continue with abatement of pollution of groundwater pursuant to 19.15.30 NMAC (Remediation), under Abatement Plan AP-111, with remediation activities already in place.



## SECTION 1 INTRODUCTION

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The 2019 Annual Groundwater Monitoring Report describes water quality monitoring and remediation activities undertaken throughout 2019. Groundwater sampling is performed on a quarterly, semi-annual and annual basis. Water samples are also collected from the evaporation ponds located on the northwest section of the refinery property. The activities completed include analysis of groundwater samples collected at all active monitoring wells and surface water samples collected at evaporation ponds. The data generated is used to characterize the nature and extent of impacts to the groundwater at the refinery from historical releases and to monitor any levels of constituents that exceed applicable standards.



## **1.1 FACILITY OWNERSHIP, OPERATION, AND LOCATION**

This report pertains to the Marathon Petroleum Company Gallup Refinery, located at Exit 39 on Interstate I-40, approximately 17 miles east of Gallup, New Mexico, in Jamestown, New Mexico. Figure 1 shows the regional location of the refinery.

Owner: Marathon Petroleum Company  
(Parent Corporation)  
539 South Main Street, Findlay, OH 45840

Operator: Western Refining Southwest, Inc.  
(Postal address) Gallup Refinery  
92 Giant Crossing Road, Gallup, NM 87301

Western Refining Southwest, Inc.  
(Physical address) Gallup Refinery  
I-40, Exit 39, Jamestown, New Mexico 87347

The following regulatory identification and permit governs the Gallup Refinery:

- SIC code 2911 (Petroleum Refining) applies to the Gallup Refinery;
- U.S. EPA ID Number NMD000333211 RCRA Post-Closure Care Permit;
- OCD Abatement Plan, number AP-111; and
- 2015 NPDES MSGP, ID #NMR053168.

The refinery status is corrective action/compliance. Annual, semi-annual, and quarterly groundwater sampling is conducted at the refinery to evaluate present conditions. The refinery is situated on an 810-acre irregular shaped tract of land that is substantially located within the lower one-quarter of Section 28 and throughout Section 33 of Township 15 North, Range 15 west, of the New Mexico Prime Meridian. A small component of the property lies within the northeastern one-quarter of Section 4 of Township 14 North, Range 15 West. Figure 2 is a topographic map showing the general layout of the refinery in comparison to the local topography. Figure 3 is an aerial photograph of the Gallup Refinery.



## 1.2 BACKGROUND INFORMATION

The refinery primarily receives crude oil via two 6-inch diameter pipelines; two pipelines from the Four Corners Area enter the refinery property from the north. In addition, the refinery also receives natural gasoline feed stocks via a 4-inch diameter pipeline that comes in from the west along the Interstate 40 corridor from the Wingate Plant, formerly Conoco gas plant. Crude oil and other products also arrive at the site via railroad cars. These feed stocks are then stored in tanks until refined into products.

The refinery incorporates various processing units that refine crude oil and natural gasoline into finished products. These units are briefly described as follows:

- Crude Distillation Unit: separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuum;
- Fluidized Catalytic Cracking Unit (FCCU): dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils;
- Alkylation Unit: combines specific types of hydrocarbon molecules into a high-octane gasoline blending component;
- Reforming Unit: breaks up and reforms low octane naphtha molecules to form high octane naphtha;
- Hydro Treating Unit: removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates the feed stocks with hydrogen to make diesel fuel;
- Additional Treater Units: remove impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications;
- A set of Acid Gas Treating and Sulfur Recovery Units: convert and recover various sulfur compounds from other processing units in order to produce either ammonium thiosulfate or a solid elemental sulfur byproduct; and
- Waste Water Treatment Plant – process and treat refinery waste and storm water before releasing to evaporation ponds.

As a result of these processing steps, the refinery produces a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, kerosene, and residual fuel. In addition to the aforementioned processing units, various other equipment and systems support the operation of the refinery and are briefly described as follows:

- Storage tanks are used throughout the refinery to hold and store crude oil, natural gasoline, intermediate feed stocks, finished products, chemicals, and water. These tanks are all located aboveground and the capacity ranges from 80,000 barrels to less than 1,000 barrels.
- Pumps, valves, and piping systems are used throughout the refinery to transfer various liquids among storage tanks and processing units.
- A railroad spur track and a railcar loading rack are used to transfer feed stocks and products from refinery storage tanks into and out of railcars.
- Several tank truck loading areas are used at the refinery to load out finished products and also may receive crude oil, other feed stocks, additives, and chemicals.

Gasoline and diesel are delivered to the Travel Center via tanker truck. An underground diesel pipeline exists between



the refinery and the Travel Center. As a result of an off-refinery release in 2011, the pipeline was purged of product, filled with nitrogen and temporarily taken out of service. Western worked with the NMED – PSTB (Petroleum Storage Tank Bureau) and the NM OCD (Oil Conservation Division) to place this line back in service. In 2013 the underground diesel line from the Gallup Refinery to the Travel Center was replaced. The replaced line runs above ground from the marketing area of the refinery for approximately 150 feet and continues underground to the Travel Center. The diesel line was re-commissioned and put back in service on February 3, 2014. The diesel line currently is not in service.

A designated area is used to conduct employee firefighting training. During these training activities waste water and/or wash water drains directly into a dedicated tank that is located in the vicinity. The waste water is removed via vacuum truck and drained into a process sewer leading to the new API separator (NAPIS) after each training exercise. Oily water and sludge are transferred via vacuum truck to the NAPIS for processing and oil-water separation. The process waste water system is a network of curbing, paving, catch basins, and underground piping that collects waste water effluent and stormwater runoff from various processing areas within the refinery. The waste water effluent flows into T-27, T-28 and into T-35 (which works in parallel to T-27 and T-28) and into the NAPIS which provides the first stage oil-water separation where the removal of free oil is separated from waste water by gravity. The clarified water is routed to the waste water treatment plant (WWTP) Dissolved Gas Flotation (DGF) system which provides the second stage oil-water separation process. The DGF process involves the pressurization of waste water in the presence of air or nitrogen, creating a super-saturated solution called coagulates that are carried to the surface. The float is removed to disposal by mechanical float scrapers and the effluent is recycled back to the flotation chamber. The skimmed float is sent to the DGF float management system, “float tanks”. Oily solids collected in the float tanks are recycled through the refining process (on-site) or handled as a K048 listed hazardous waste for proper disposal.

The clarified effluent from the DGF system was designed with the Macro Porous Polymer Extraction (MPPE) system however, the MPPE unit did not perform as expected from a flow rate standpoint. It removed benzene efficiently, but became plugged so that flow rates decreased below adequate levels. In December 2014, the MPPE was removed from service and replaced with the carbon canister system. The two systems ran in parallel for three months in the second half of 2014 followed by trial with carbon canisters for two months before the MPPE was removed from service. Flow rates up to 500 GPM can now be achieved through the carbon system. The waste water that passes through the carbon canisters discharges into the sanitary treatment pond (STP-1). STP-1 has two bays, north and south and each bay is equipped with five aerators. The treated waste water is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other



microbial organisms. The microbes degrade most of the hydrocarbons into carbon dioxide and water. Five 15-hp mechanical aerators provide aeration in each bay (North and South) in STP-1. Effluent from STP-1 then flows into evaporation pond 2 (EP-2) and is gravitated to the rest of the ponds.

The initial startup of the new WWTP was in May of 2012 which resulted in the decommissioning of Benzene Strippers 1, 2, and 3, and the Aeration Lagoons 1 and 2 (AL-1 and AL-2) and Pond 1. In November of 2012, the benzene strippers were taken off-line permanently and demolished in January of 2013. At the evaporation ponds, waste water is converted into vapor via solar and mechanical wind-effect evaporation. There are four evaporators located at the ponds. Two 80 GPM, electrically driven water evaporators are located between evaporation ponds 4 and 5 and two additional 66 GPM sprayers were installed between ponds 3 and 4 in October 2014; upgrades continue. No waste water is discharged from the refinery to surface waters of the U.S. All treated waste water is routed into several evaporation ponds, which have large surface areas that are designed to efficiently evaporate water by sunlight and exposure to the changing ambient temperatures.

The stormwater system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release stormwater that falls within or passes through refinery property. Stormwater that falls within the processing areas is conveyed through the same underground piping system that collects waste water effluent from various processing areas with the refinery. The stormwater effluent from within the process areas follows the same flow pattern and treatment as described in the process waste water flow system (T-27 → T-28 → T-35 → NAPIS → WWTP → STP-1 → EP-2 → Evaporation Ponds).

Stormwater discharge from the refinery is infrequent due to the arid desert-like nature of the surrounding geographical area. Gallup Refinery maintains a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) for effective storm water pollution prevention and control. The refinery has constructed several berms in various areas and improved outfalls (installed barrier dams equipped with gate valves) to minimize the possibility of potentially impacted runoff leaving the refinery property.

### **1.3 SITE CHARACTERISTICS**

Built in the 1950's, the refinery is located within a rural and sparsely populated section of McKinley County, Jamestown, New Mexico, and located 17 miles east of Gallup, New Mexico. The setting is a high desert plain on the western slope of the Continental Divide. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. The nearest population centers are the Flying J Travel



Center (formerly Pilot) refueling plaza, the Interstate 40 highway corridor, and a small cluster of residential homes located on the south side of Interstate 40, approximately 2 miles southwest of the refinery (Jamestown). Surface vegetation consists of native xerophytic vegetation including grasses, shrubs, small junipers and some prickly pear cacti. Average rainfall is less than ten inches per year with the maximum average precipitation occurring during the month of August.

Local topography consists of an incline down-slope from high ground in the southeast to a lowland fluvial plain in the northwest. The highest point on refinery property is located at the southeast corner boundary (elevation approximately 7,040 feet) and the lowest point is located at the northwest corner boundary (elevation approximately 6,860 feet). The refinery processing facility is located on a flat man-made terrace at an elevation of approximately 6,950 feet.

Surface water in this region consists of man-made evaporation ponds and aeration basins located within the refinery, a livestock watering pond (Jon Myer's Pond) located one mile east of the refinery, two small unnamed spring fed ponds located south of the refinery, and the South Fork of the Puerco River and its tributary arroyos. The various ponds and basins typically contain water consistently throughout the year. The South Fork of the Puerco River and its tributaries are intermittent and generally only contain water during, and immediately after, the occurrence of precipitation.

The 810-acre refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits; primarily clay and silt with minor inter-bedded sand layers. Below the surface layer is the Chinle Formation, which consists of very low permeability clay stones and siltstones that comprise the shale of this formation. As such, the Chinle Formation effectively serves as an aquitard. Interbedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquitard, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the refinery property.

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



Formation. Figure 4 depicts the regional surface water flows are in a westerly direction and Figure 5 depicts surface water bodies and flow lines.

Shallow groundwater located under refinery property generally flows along the upper contact of the Chinle Formation. Although the prevailing flow direction is from the southeast and toward the northwest; a subsurface ridge has been identified and is thought to deflect some flow in a northeasterly direction in the vicinity of the refinery tank farm.



## SECTION 2 SCOPE OF ACTIVITIES 2019

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The 2019 quarterly and annual groundwater sampling, and semi-annual evaporation pond sampling was conducted by Marathon. Groundwater sampling associated with the installation of the new wells MKTF-46, MKTF-47, MKTF-48, MKTF-49, MKTF-50 and OW-58A was conducted by DiSorbo Consulting, LLC. The third quarter groundwater sampling was combined with the annual sampling event per approval from NMED and OCD and was conducted in August and September 2019. The following is a list of monitoring and inspections completed for 2019:

- Fluid Recovery Logs – Appendix C;
- Field Inspection Logs – Appendix D;
- Summary of EPA / NMED / NMOCD / RCRA Activity – Appendix E;
- Summary of leaks, spills and releases – Appendix F;
- OCD Central Landfarm – Semi-Annual Soil Sampling – Copies of the analytical data is provided in Appendix G;
- 2019 Analytical Data – Appendix H;
- Well Data Measurements (Elevations) – Section 9; and
- Quarterly, Semiannual, Annual Inspections Summary – Section 10.

### 2.1 MONITORING AND SAMPLING PROGRAM

The primary objective of groundwater monitoring program is to analyze groundwater samples collected and use the data to assess groundwater quality at and near the refinery. Groundwater elevation data was collected to evaluate groundwater flow conditions. The groundwater monitoring program for the refinery consists of sample collection and analysis from a series of monitoring, recovery, boundary, process, and shallow monitoring wells. In addition, surface water samples are collected at the evaporation pond locations.

The groundwater monitoring network is separated into five areas (Group A, Group B, Group C, Group D, and Group E) plus the evaporation ponds and effluent from STP-1 to Pond 2. The sampling frequency, analyses and target analytes vary for each area. The combined data from these areas were used to assess groundwater quality beneath and immediately down-gradient of the refinery, and to evaluate local groundwater flow conditions. Samples were collected at least annually from all monitoring wells with the exception of recovery and/or monitoring wells that had a measurable separate-phase hydrocarbon (SPH) level. At wells that were purged dry, samples were collected if recharge volume was sufficient for sample collection within a 24-hour period. Wells not sampled due to insufficient recharge were documented in the field logs.



Daily field activities, including observations and field procedures, were recorded for each activity and are maintained at the refinery. Field logs include the following information:

- Sample Location Identification;
- Date;
- Start and finish sampling time;
- Field team members, including visitors;
- Weather conditions;
- Daily activities and times conducted;
- Observations;
- Record of samples collected with sample designations;
- Photo log (if needed);
- Field monitoring data, including health and safety monitoring (if needed);
- Equipment used and calibration records, if appropriate;
- List of additional data sheets and maps completed;
- An inventory of the waste generated and the method of storage or disposal; and
- Signature of personnel completing the field record.

All samples collected for analysis are recorded in the field report or data sheets. Chain-of-Custody (COC) forms are completed at the end of each sampling day, prior to the transfer of samples off-site. The signed copy of the COC is placed inside sample containers with the samples and shipped to the laboratory. A custody seal is affixed to the lid of the shipping container. Copies of all COC forms generated are kept at the refinery.



## **2.2 SAMPLING METHODS AND PROCEDURES**

Each monitoring well was gauged for depth to water (DTW), total depth, and depth to product (DTP), if applicable, to determine the amount of water to purge. A minimum of two well volumes is purged from each well prior to sampling. If the water level is at a minimum or the well has a low recharge rate, the well is allowed to recharge within 24 hours before a sample is collected. For wells that are not supplied with dedicated pumps, a portable pump is lowered slowly into the well to minimize disturbance to a depth of the midpoint of the screened interval of the well. The pump controller is started at a slow rate and gradually increased until water is discharged. Field water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5-minute intervals, within the following limits before purging will be discontinued and sampling may begin: dissolved oxygen (DO) (10%), specific conductance (10%), temperature (10%), and pH (10%). Table 2.1 summarizes the final water quality readings collected in 2019.

Groundwater samples were obtained from each well within 24 hours of the completion of well purging. The samples were transferred to an appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample collection methods have been documented in the field monitoring reports. Weather conditions, the volume of groundwater purged, description of water, the instruments used, and the water quality readings obtained at each interval were recorded on the field-monitoring log.

Well purging and sampling were performed using disposable polyethylene bailers and/or appropriate portable sampling pumps where applicable. Some of the wells have dedicated pumps installed where a controller is used to power the submersible pump to purge water. In shallow wells, new disposable bailers were used for each well to hand bail purge water and retrieve water samples. All purged groundwater was collected in 55-gallon drum(s) and/or 5-gallon bucket(s) and drained into the refinery waste water treatment system upstream of the NAPIS. Groundwater samples intended for metals analysis were submitted to the laboratory as total and dissolved metals samples.

At a minimum, the following procedure was followed when collecting/shipping samples:

- Protective eye wear (safety glasses, goggles and/or face shield);
- Neoprene, nitrile, or other protective gloves are worn when collecting samples. New disposable gloves are used to collect samples at each sample point;
- All samples collected for chemical analysis are transferred into clean sample containers supplied by the analytical laboratory. Sample containers are clearly marked and labeled;
- Groundwater samples obtained for dissolved metals analysis are filtered through a 0.45 µm (micrometer) mesh size disposable filter on site;



- Samples are labeled, sealed, placed in cooler with ice until they are shipped via courier or personally delivered to the analytical laboratory;
- Standard COC procedures are followed for all samples collected. The COC form and sample request form are shipped inside the sealed storage container to be delivered to the laboratory, signed and dated; and
- Field duplicates and trip blanks are obtained for quality assurance during sampling activities. Trip blanks accompany laboratory sample bottles and shipping and storage containers intended for volatile organic compound (VOC) analyses. Trip blanks consist of a sample of analyte free de-ionized water placed in an appropriate sample container. Trip blanks are analyzed at a frequency of one for each shipping event involving twenty or more samples.

In order to prevent cross-contamination, field equipment that came into contact with water or soil was decontaminated before each sampling event. The decontamination procedure for the portable pump consists of rinsing/washing the equipment with a detergent water mixture followed by two rinses before use in another well. Any equipment that came in contact with each well, such as data loggers or tape measure, was decontaminated with a detergent water mixture and rinsed with distilled water before each use. Decontamination of equipment when feasible is done at the bundle pad where decontamination water is drained into the sewer system. Decontamination water from field work was caught in an appropriate container and drained into the sewer system upstream of the NAPIS.

#### **2.2.1 EQUIPMENT**

- A submersible bladder pump 2-inch, 115-volt AC to DC converter, Grundfos Redi-flo2 constructed of stainless steel with check valve and 1/2-inch Teflon tubing, adjustable rate controller powered by a gas generator is used to purge groundwater from monitoring wells. Equipment is located downwind and at least 20 feet from the well so that exhaust fumes do not cross-contaminate the samples.
- Water level instrument used is a WaterMark Oil Water Interface Meter 100 feet, Model 101L/SMOIL. This instrument measures water and hydrocarbon level; indication is a steady audible tone for water and hydrocarbon indication is an erratic audible tone.
- Parameter Instrument – YSI Model 556 MPS Multi Probe System which simultaneously measures DO, conductivity, temperature, and optional pH and ORP (Oxidation Reduction Potential). As a backup, we also have an IQ Scientific Instrument, Model IQ180GLP which measures pH, DO, TDS (Total Dissolved Solids), conductivity, salinity, ISE (Ion Selective Electrode), mV (Millivolts) and temperature.
- Disposable Bailers – Polyethylene bailer 1.5 inches X 36 inches overall length (OAL) with a capacity of approximately 1 liter and 3 inches X 36 inches OAL. Individually sealed packaging, single check valve bailer with slide in angle cut nozzle for sample removal. A new bailer is used for each well that requires hand bailing for purging and sample retrieval.
- Field equipment parameter instruments were calibrated to known standards in accordance with the manufacturers' recommended schedules and procedures. Calibration checks are conducted before a sampling event and the instruments recalibrated as deemed necessary. Calibration of equipment was noted in the daily field logs. Included as Appendix J is an electronic copy of the operation manual for the YSI Model 556. Section 6 in the operation manual provides calibration instructions.
- If field equipment becomes inoperable, a properly calibrated replacement instrument is used in the interim. Type of instrumentation used during a sampling event is recorded in the daily field logs.



## **2.3 COLLECTION AND MANAGEMENT OF INVESTIGATION DERIVED WASTE**

Investigation derived waste (IDW) generated during each groundwater sampling event includes purged water, decontamination water, excess sample material, and disposable sampling equipment. All water purged from monitoring wells generated during sampling and decontamination activities was temporarily stored in labeled 55-gallon drum(s), plastic chemical totes, truck-mounted portable plastic tank, and/or 5-gallon bucket(s) and then drained into the refinery sewer system upstream of the NAPIS.

## **2.4 COLLECTION OF SURFACE WATER SAMPLES**

At the evaporation ponds, grab samples were collected near the inlets (pond edge). This location was noted in the field notebooks. For outfalls, a grab sample was collected at the pipe end, and recorded in the field log.

## **2.5 ANALYTICAL METHODS**

Groundwater and surface water samples collected during the monitoring events were analyzed for the constituents listed in Table 1, Section 10.0.

## **2.6 PERIMETER INSPECTION**

Perimeter inspections are part of the daily routine for refinery personnel to report any hydrocarbon staining, spills or any release that could result in material leaving the property boundary.

## **2.7 REMEDIATION ACTIVITIES**

A site investigation of the refinery tank farm network conducted in 1987 indicated high concentrations of BTEX constituents in the groundwater as well as hydrocarbons. As a result of the findings from additional site investigations conducted from 1987 through 1990, four recovery wells (RW-1, RW-2, RW-5, and RW-6) were installed to recover the SPH. SPH has been recovered from RW-1 using a submersible bladder pump and from RW-5 and RW-6 by hand-bailing using a disposable polyethylene bailer. Tables in Appendix C summarizes measurements, volume of product and water purged and also provides annual volumes of product purged from each well. RW-2 is listed as a recovery well but to date no visible hydrocarbon layer or odor has been observed in this well during quarterly inspections.

In RW-1 a bladder pump was used to pump out SPH on a quarterly basis into a labeled 55-gallon drum. The visible layer of floating product in the drum was measured with a tape measure and calculated as best as possible for the volume of product recovered. In RW-5 and RW-6, a 3-foot disposable hand bailer was used to extract product and water from the



wells. Bailed water was collected in a 5-gallon bucket and the visible layer of floating product was then measured with a tape measure to estimate volume of SPH recovered. The purged water was drained into the refinery waste water treatment system upstream of the NAPIS.

The SPH thickness level in RW-1 has varied since 2005 when levels near 4 to 5 feet were measured. The measured thickness of SPH appeared to decrease from 2006 through 2007 with levels returning to 4 to 5 feet again in 2008. The levels decreased in 2009 to less than 1 foot and remained low until 2013, when SPH levels again increased to 4 to 5 feet. SPH levels began to decrease again in 2016 and were down to only 1 foot by December 2017, with the measured thickness remaining well below one foot through the third quarter of 2018. A new recovery pump was installed in RW-1 in the fall of 2018 and the fluid level was not measured during the fourth quarter of 2018. In 2018, total hydrocarbon recovery is estimated at 1.0 gallon and 1.5 gallons of water purged compared to the 2005 estimate of 431 gallons of hydrocarbons in 1,210 gallons of water. No measurable hydrocarbons have been detected in RW-2 since 2005.

SPH had not been detected in RW-5 and RW-6 since February 2009 and November 2011, respectively, but was detected again in June 2017. A maximum thickness of 8.10 feet was measured in RW-5 in February 2018 that subsequently decreased to 5.38 feet in August 2018. At RW-6, a maximum thickness of 7.40 feet was measured in RW-6 in February 2018 that subsequently decreased to 4.35 feet in August 2018. Recovery pumps were re-installed in RW-5 and RW-6 in 2018. Authorization to use the pumps was not granted in 2018, thus no SPH was recovered from RW-5 or RW-6.

Fluid recovery pumps have been installed in RW-1, RW-2, RW-5, RW-6, OW-14, OW-30, OW-54, and OW-55. The Interim Groundwater Recovery System was approved in 2019 and limited fluid recovery was conducted. Fluid recovery from RW-1, RW-2, RW-5, and RW-6 is summarized in Appendix C. Fluid recovery from the other wells for 2019 is summarized below:

- OW-14 – 569.25 gallons;
- OW-30 – 1,070.85 gallons;
- OW-54 – 1,755 gallons; and
- OW-55 – 1,845 gallons.

On June 26, 2013, notification of the discovery of a hydrocarbon seep to the land surface was made to NMED and OCD. Shortly after the seep was initially discovered, fourteen soil excavations were completed in the area of the seep to help identify the presence of hydrocarbons in the shallow subsurface. The excavations confirmed the presence of hydrocarbons throughout the immediate area of the seep and to the east and south of the seep. Six of the excavations



were found to have sufficient hydrocarbons to warrant completion as temporary recovery sumps. A six-inch PVC well screen was placed into each of these six excavations and backfilled with coarse gravel to create temporary sumps to allow for safe, continued recovery of liquids. The sumps range in depth from approximately 8 to 10 feet and are estimated to be 4 feet wide by 6 feet long. The area has been identified as the "Hydrocarbon Seep", located directly west of crude Tanks 101 and 102. Response actions have included installation of six temporary sumps (S1 – S6). At the beginning of 2019, a total of 44 permanent monitoring wells (MKTF-1 through MKTF-44) had been installed to monitor ground water impacts. An existing well was identified in the area and assigned a well ID of MKTF-45. During the fourth quarter of 2019 five new MKTF wells were installed to provide additional groundwater monitoring up-gradient of existing monitoring wells. To accomplish this objective, one well (MKTF-46) was installed south of well MKTF-35; one well (MKTF-47) was installed east of MKTF-37; one well (MKTF-48) was installed east of well MKTF-39; one well (MKTF-49) was installed northwest of crude oil storage tank TK102; and one well (MKTF-50) was installed north of crude oil storage tank TK101. From June 2013 through December 2019 total hydrocarbon recovery is estimated to be 19,009 gallons and 1,727,574 gallons of water from the sumps. In addition to the six temporary sumps, a series of retention ditches were excavated just north of the sumps in 2016. From April 2016 through December 2019, a total of 645,981 gallons of a water/oil mixture has been recovered from the retention ditches with approximately 4,324.2 gallons of separate phase hydrocarbon recovered. Of the 50 MKTF wells, 15 (MKTF 1, 3, 5, 6, 7, 8, 12, 14, 15, 18, 23, 26, 36, 37, and 45) had measurable layers of product in 2019. Initial hydrocarbon recovery from these wells conducted in February and June 2015 is estimated at 11.2 gallons. No hydrocarbon recovery was done in 2018. The wells identified to have a product layer will be pumped on a more frequent basis to determine recharge rate and recovery of hydrocarbons. Figure 13 presents a separate phase hydrocarbon thickness map for September 2019.

The discharge of hydrocarbon from the drain line to the STP-1 French drain was discovered on February 6, 2018. In an effort to find the source of the hydrocarbon, on February 8, 2018 excavations were conducted near STP-1, with additional excavations conducted through February 10, 2018 further into the tank farm. The first three excavations were conducted near the southeast corner and south side of STP-1, with hydrocarbons confirmed in the shallow subsurface near the southeast corner of STP-1. The excavations were conducted with a backhoe and although depths were not recorded, it is estimated that they reached depths of 6 to 8 feet. Three additional excavations were completed along the west end of the tank farm and no evidence of hydrocarbons was encountered at these locations, but groundwater was not reached in these excavations. Two excavations were completed southeast of the flare and north of the crude oil tanks with no evidence of hydrocarbons in either excavation. Two more excavations were then completed between the wastewater treatment plant and STP-1, but there is no documentation currently available as to what was observed. One excavation



was completed northwest of Tank 571, but no hydrocarbons were identified; the excavation did not reach groundwater.

In addition to the excavations completed using either a backhoe or hydroexcavation, smaller holes were hand excavated to the east of STP-1 along the natural drainage pathway, where hydrocarbons were encountered at shallow depths (e.g., 3 feet). Hand excavations were also completed on the northwest sides of Tanks 569, 570, 571, and 572, but no evidence of a release was found.

During this same general time period, fluid levels were monitored in Tanks 570, 571, and 345 to determine if there was any evidence of loss from these tanks. Based on the fluid levels, no apparent leaks were detected. Due to the limited depths that could be reached with the backhoe and through hydroexcavation, starting on March 5, 2019 six deep soil borings were completed across the tank farm and to the north of STP-1. Five of these locations were completed as permanent monitoring wells (OW-61, OW-62, OW-63, OW-64, and OW-65) and the related sampling activities are discussed in Sections 6.2.5 and 6.3. In July 2019 four new temporary monitoring wells (TK570-2 through TK570-5) were drilled around the perimeter of Tank 570. PSH was found in on all four sides of Tank 570, with product thickness ranging from 0.01 feet to 1.55 feet.



## **SECTION 3 GROUNDWATER DTW/DTP**

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Groundwater elevation data were collected from the wells listed in Table 1, Section 10.0. A summary of field measurements (DTW, DTP) taken during the quarterly, semi-annual and annual inspections is included in Section 9. Groundwater levels and SPH column thickness measurements (from the RW series of wells as well as the MKTF wells) were collected quarterly to monitor groundwater elevation and product column thickness fluctuations over time. Maps were generated using elevation data collected from surveys conducted by DePauli Engineering and from Hammon Enterprises Inc., professional surveyor and data from the 2019 field inspection logs.

Field notes and measurement data were recorded in field logs for each well for 2019 and are located in Appendix D. The depth to groundwater and SPH column thickness are recorded relative to the surveyed well casing rim or other surveyed datum. A corrected water table elevation is provided in wells containing SPH by adding 0.8 times the measured SPH column thickness to the measured water table elevation (Section 9).

All water/product levels are measured to an accuracy of the nearest 0.01-ft using a WaterMark Oil Water Interface Meter, Model 101L/SMOIL (100 ft.). After the water level is determined, the well volume is calculated using the height of the liquid column and the internal cross-sectional area of the well. The purge volume is a minimum of two times the well volume.

All manual extraction of SPH and water from recovery wells, observation wells, and collection wells is discontinued for 48 hours prior to the measurement of water and SPH levels. Figure 6 (Section 11) shows the locations of all active wells.



## SECTION 4 REGULATORY CRITERIA

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Laboratory analytical data is compared to the most current regulatory standards at time of submission of the report.

- New Mexico 20NMAC 20.6.2.3103 (WQCC). Standards for Groundwater of 10,000 mg/L TDS Concentration or Less (December 2018)
- EPA 40 CFR 141.61. Maximum Contaminant Levels for Organic Contaminants - National Primary Drinking Water Regulations (Updated June 2017)
- EPA 40 CFR 141.62. Maximum Contaminant Levels for Inorganic Contaminants - National Primary Drinking Water Regulations (Updated June 2017)
- National Primary Drinking Water Regulations (Updated June 2017)(EPA MCL)
- NMED Tap Water Screening Levels (June 2019)
- EPA Regional Screening Levels set for Residential Risk-Based Screening Levels (EPA RSL) for Tap Water (November 2019)
- NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater) (June 2019)



## SECTION 5 GROUNDWATER FIGURES

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Geologic profiles and groundwater elevations are depicted in the following maps in Section 11.

- Figures 7 and 7A present south-north geologic profiles on the east side of the refinery showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located.
- Figures 8 and 8A present south-north geologic profiles on the west side of the refinery showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located.
- Figure 9, Sonsela Water Elevation Map - 2019, depicts groundwater elevation contours and flow direction.
- Figure 10, Alluvium/Chinle Group Interface Water Elevation Map – 2019, depicts groundwater elevation contours and flow direction.
- Figures 11A through 11J, present graphs of the groundwater elevation, SPH elevation (if present) and the ground surface elevation. The ground surface elevation is not included on graphs where SPH is not present. The data presented in the graphs includes the current reporting year and four previous years, as applicable.
- Figure 12, Alluvial/Fluvial Upper Sand Water - 2019, depicts the groundwater elevation data for those wells screened in this interval.
- Figure 14 presents a west-east geologic profile on the north side of the refinery.



## SECTION 6 GROUNDWATER MONITORING RESULTS

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All analytical data tables referenced in the following subsections are included in Section 8 of this report. Bold and highlighted values indicate a constituent exceeds an applicable standard(s). Due to requirements for field preservation of samples, some samples have the results for nitrite and nitrate reported as a single value of nitrogen. In these instances, the value is conservatively listed for both nitrite and nitrate and a comparison is made between the reported concentration and the regulatory standards for both nitrite and nitrate. This may result in false indication of nitrite exceeding the regulatory standard. Modifications to the field sampling program have been made to allow reporting of both nitrate and nitrite in future reports. The samples collected on Monday through Thursday are relinquished to a courier the following morning for delivery to the laboratory. The groundwater samples collected on Fridays are hand delivered to the laboratory before closing on Fridays.

Graphs and isoconcentration maps of the reported concentrations for benzene, ethylbenzene, toluene, total xylenes and MTBE are provided in a series of figures numbered 15 through 20. The data presented in the graphs includes the current reporting year and the four previous years, as applicable. Appendix H - Laboratory data for 2019 sampling events is provided on an attached CD. Appendix I – Groundwater Data Validation is also provided on an attached CD.

### 6.1 CONSTITUENT LEVELS IN GROUP A MONITORING WELLS

Group A wells are located near the west and northwest boundary of the refinery property. Fourteen monitoring wells are situated along the refinery boundary and six monitoring wells are within the RCRA LTU area.

#### 6.1.1 BOUNDARY WELLS: BW-1A/1B/1C, BW-2A/2B/2C, BW-3A/3B/3C, BW-4A/4B, and BW-5A/5B/5C

The 14 boundary wells (BW), downgradient of the refinery property, are screened within three different stratigraphic units. BW-1A, BW-2A, BW-3A, BW-4A, and BW-5A are screened within the Upper Sand stratigraphic unit (Figure 12); BW-1B, BW-2B, BW-3B, BW-4B, and BW-5B are screened in the Alluvium/Chinle Interface stratigraphic unit (Figure 10); and BW-1C, BW-2C, BW-3C, and BW-5C are screened within the Sonsela stratigraphic unit (Figure 9).

The BW-1A, BW-1B, and BW-1C wells are located on the elevated dike separating EP-7 and EP-8. BW-2A, BW-2B, and BW-2C are located on the northwest edge of EP-11 and BW-3A, BW-3B, and BW-3C are located in the field north of EP-12A and EP-12B. Two wells (BW-4A and BW-4B), which were installed in 2017, are located adjacent to Sonsela well OW-1, which is located south of EP-7. BW-5A, BW-5B, and BW-5C, also installed in 2017, are located west of EP-9.



Three of the boundary wells (BW-1A, BW-1B, and BW-3A) have been dry since installation in 2003 and 2004. Boundary well BW-4A was installed in 2017 and is also dry. BW-5A was installed in 2017 and was dry throughout 2018. Groundwater was detected in BW-5A during the quarterly gauging events in 2019, however, the volume of groundwater was insufficient and the well was not sampled. The volume of groundwater recovered after purging BW-4B in the fourth quarter 2019 was insufficient and the well was not sampled.

The boundary wells are sampled and evaluated for the following analytes: VOCs, gasoline range organics, (GRO), diesel range organics (DRO) and motor oil range organics (MRO), major cations/anions, and WQCC metals (total and dissolved). As of 2016, SVOCs were removed from analytical requirement (Table 8.1.4). The boundary wells were sampled and/or inspected on the following dates:

BOUNDARY WELLS MONITORED ANNUALLY					
WELL ID	DATE	WELL ID	DATE	WELL ID	DATE
<b>BW-1A</b>	8/14/19 NS-DRY	<b>BW-2A</b>	8/14/19	<b>BW-3A</b>	8/14/19 NS-DRY
<b>BW-1B</b>	8/14/19 NS-DRY	<b>BW-2B</b>	8/15/19	<b>BW-3B</b>	8/14/19
<b>BW-1C</b>	8/14/19	<b>BW-2C</b>	8/15/19	<b>BW-3C</b>	8/14/19

BOUNDARY WELLS MONITORED QUARTERLY				
WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>BW-4A</b>	3/27/19 NS-DRY	5/21/19 NS-DRY	8/23/19 NS-DRY	10/16/19 NS-DRY
<b>BW-4B</b>	3/27/19	5/22/19	8/23/19	10/16/19 NS-INSF
<b>BW-5A</b>	3/27/19 NS-INSF	5/21/19 NS-INSF	8/15/19 NS-INSF	10/16/19 NS-INSF
<b>BW-5B</b>	3/27/19	5/22/19	8/15/19	10/16/19
<b>BW-5C</b>	3/27/19	5/21/19	8/15/19	10/16/19

NS – Well was not sampled. INSF- Insufficient volume of water to sample.

- No BTEX or MTBE constituents have been detected in any of the boundary wells, with the exception of MTBE in samples collected from BW-5B and BW-5C. MTBE was detected in the samples collected from BW-5B and



BW-5C in all four quarters in 2019. None of the concentrations for MTBE exceeded applicable standards in BW-5B or BW-5C (Table 8.1).

- Fluoride exceeded the applicable standard in BW-1C, BW-2B, and BW-2C. Chloride exceeded the applicable standard in BW-5B (all four quarters) and BW-5C (all four quarters). Low concentrations of chloride, bromide, nitrite, nitrate, and sulfate were detected in the BW wells sampled in 2019 (Table 8.1.1).
- GRO exceeded the applicable standard in BW-5C in the second quarter 2019 (Table 8.1.1).
- Arsenic (total) exceeded the applicable standard in BW-4B in the first, second, and third quarters 2019. Arsenic (dissolved) exceeded the applicable standard in BW-4B in the first and second quarters 2019 (Table 8.1.2 and Table 8.1.3).
- Iron (total) exceeded the applicable standard in BW-2B, BW-2C, BW-3C, BW-4B, BW-5B, and BW-5C (Table 8.1.2).
- Manganese (total) exceeded the applicable standard in BW-4B in the second quarter 2019 (Table 8.1.2).
- Uranium (total and dissolved) exceeded the applicable standard (not regulated by RCRA) in samples collected at BW-4B, BW-5B, and BW-5C (Table 8.1.2 and Table 8.1.3).
- Acetone was detected in low concentrations in samples collected at BW-4B, BW-5B, and BW-5C (Table 8.1.4).
- Benzoic acid was detected in low concentrations in BW-4B and BW-5C (Table 8.1.4).
- Bis(2-ethylhexyl) phthalate exceeded the applicable standard in the sample collected from BW-5C in the third quarter 2019 (Table 8.1.4).
- 1,1-Dichloroethane was detected in low concentrations in the samples from BW-5C in 2019 (Table 8.1.4).
- Carbon disulfide and di-n-octyl phthalate were detected in low concentrations in the second quarter sample collected from BW-4B (Table 8.1.14).
- 1,4-dioxane was detected in a concentration below the applicable standard in the sample collected from BW-5C in the fourth quarter 2019 (Table 8.1.14).

#### **6.1.2 LAND TREATMENT UNIT: MW-1, MW-2, MW-4, MW-5, SMW-2, and SMW-4**

The Land Treatment Unit (LTU) groundwater monitoring wells include MW-1, MW-2, MW-4, MW-5, SMW-2, and SMW-4. MW-1, SMW-4, and MW-2 are located downgradient along the north edge of the closed RCRA LTU. MW-5 and SMW-2 are located on the eastern perimeter of the LTU and MW-4 is located upgradient (south) of the LTU. MW-1, MW-2, MW-4, and MW-5 are screened within the Sonsela stratigraphic unit. SMW-4 is screened within the Chinle/Alluvium Interface. SMW-2 is screened in both the Chinle/Alluvium Interface and Upper Sand stratigraphic units.

The LTU monitoring wells are sampled on an annual basis. Annual samples were analyzed for the following analytes: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, WQCC metals (total and dissolved) and cyanide.

Sampling and inspections for 2019 on the LTU monitoring wells were completed on the following dates:



WELL ID	DATE	WELL ID	DATE
<b>MW-1</b>	8/12/19	<b>MW-5</b>	8/14/19
<b>MW-2</b>	8/13/19	<b>SMW-2</b>	8/22/19
<b>MW-4</b>	8/13/19	<b>SMW-4</b>	8/13/19

- BTEX or MTBE were not detected in any of the MW wells in 2019 (Table 8.2).
- Low concentrations of fluoride, chloride, and sulfate were detected in the MW wells in 2019. DRO, GRO, and MRO were not detected in the MW wells in 2019 (Table 8.2.1).
- Metals (total and dissolved) were detected in concentrations below applicable standards in all of the MW wells in 2019 (Tables 8.2.2 and 8.2.3).
- No organic compounds were detected in the MW wells in 2019 (Table 8.2.4).
- Benzene was detected in a low concentration in SMW-2. SMW-2 continues to have a low concentration of MTBE below the applicable standard (Table 8.3).
- In SMW-2, chloride and sulfate concentrations have exceeded applicable standards since 2011. In 2019, the nitrite concentration exceeded the applicable standard. Low concentrations of fluoride, chloride, nitrate, and sulfate were detected in SMW-4. GRO has been detected in SMW-2 above the applicable standard since 2011 (Table 8.3.1).
- Manganese and uranium (total and dissolved) were detected in the samples from SMW-2 above applicable standards in 2019. The manganese concentration (total) and uranium concentration (dissolved) in the sample from SMW-4 exceeded applicable standards (Table 8.3.2 and Table 8.3.3).
- Acetone was detected in a low concentration in the sample collected from SMW-4 (Table 8.3.4).

## 6.2 CONSTITUENT LEVELS IN GROUP B MONITORING WELLS

There are 12 monitoring wells and three leak detection units (LDUs) in Group B. The wells are located within the area near aeration basin west of the refinery tank farm. Group B includes three groundwater monitoring wells (GWM), four monitoring wells for the New American Petroleum Institute Separator (NAPIS), three LDUs, and OAPIS-1. OAPIS-1 was installed in 2012 as a result of the Solid Waste Management Units (SMWU) No. 1, Aeration Basin and SMWU No. 14, Old API Separator site investigation. Two monitoring wells (STP1-NW and STP1-SW) were installed on the west end of the sanitary treatment pond (STP1) in May 2014. Two monitoring wells (OW-59 and OW-60) were installed in June 2017. Observation wells OW-59 and OW-60 were installed upgradient of SMW-2 and downgradient of the Aeration Basin to assess chlorides, which have been detected in the area. One new monitoring well (OW-62) was installed in March 2018. Observation well OW-62 was installed upgradient of STP1 during the French Drain release investigation.

### 6.2.1 GROUNDWATER MONITORING WELLS: GWM-1, GWM-2, and GWM-3

The GWM series of wells are all screened in the Chinle/Alluvium Interface stratigraphic unit. GWM-1 and GWM-2 are located on the west side of the aeration basin on a dike that separates AL-2 and EP-1. Downgradient from GWM-1 and



GWM-2 is GWM-3. GWM-3 is located on the northwest corner of EP-1. These wells are inspected and groundwater samples collected on a quarterly basis if sufficient water is present to support sample collection. No groundwater has been detected in GWM-2 since 2013. No groundwater has been detected in GWM-3 since 2012. If water is detected, NMED and OCD are notified within 24 hours of discovery. In the third quarter of 2015, SPH was detected in GWM-1 for the first time. SPH was found to be present in GWM-1 during all four quarterly gauging events in 2019 with the maximum thickness recorded in the first quarter (0.48 feet). No groundwater samples were collected in 2019 for chemical analysis. Tables 8.7 through 8.7.4 are included in this report and present historical groundwater analytical data.

As reported in an email to NMED on May 13, 2019, the SPH in GWM-1 was sampled on April 8, 2019. The analysis determined the SPH to be diesel to motor oil range. On April 8, 2019 the SPH thickness was 0.32 feet. After gauging the fluid levels, 1.0 gallon of water and less than 0.1 gallon of SPH was bailed from the well. After 25 minutes the water level was still depressed by approximately 2.5 feet and no SPH was observed in the well. The well was checked again the next morning after approximately 16 hours and the water level was still depressed by approximately 1.64 feet and no SPH was recorded. The well was checked again in approximately four hours and while there was little change in the depth to water, 0.01 feet of SPH was measured in the well. After another period of approximately four hours the well was rechecked and 0.01 of SPH was recorded again. The well was checked the following morning after approximately another 18 hours and the SPH thickness had increased to 0.06 feet.

Quarterly inspections of the GWM wells were completed on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>GWM-1</b>	3/28/19	5/8/19	8/6/19	10/21/19
<b>GWM-2</b>	3/28/19	5/8/19	8/6/19	10/19/19
<b>GWM-3</b>	3/28/19	5/8/19	8/6/19	10/19/19

#### 6.2.2 GROUNDWATER MONITORING WELLS: NAPIS-1, NAPIS-2, NAPIS-3, and KA-3

The new API separator (NAPIS) groundwater monitoring wells are located east of the aeration lagoons. NAPIS-1 is an upgradient well located on the east side of the NAPIS. NAPIS-2 is located near the southwest corner of the NAPIS, and NAPIS-3 is located in the northwest corner. KA-3 is located between NAPIS-2 and NAPIS-3 on the west side of the NAPIS. These wells are screened in the Chinle/Alluvium Interface stratigraphic unit. All four wells are completed with flush mount surface completions.

NAPIS-1, NAPIS-2, NAPIS-3, and KA-3 are sampled on a quarterly basis. Groundwater samples were analyzed for the



following parameters: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, and WQCC metals (total and dissolved). Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarter gauging and sampling. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event. SPH was detected in NAPIS-1 in the second, third, and fourth quarters with the maximum thickness recorded in the fourth quarter (0.20 feet).

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>NAPIS-1</b>	3/28/19 NS-H <sub>2</sub> S	5/28/19 NS-SPH	8/22/19 NS-SPH	10/21/19 NS-SPH
<b>NAPIS-2</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19	5/28/19	8/22/19	10/21/19
<b>NAPIS-3</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19	5/28/19	8/22/19	10/21/19
<b>KA-3</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19	5/28/19	8/22/19	10/21/19

NS – Well was not sampled.

- Benzene concentrations in NAPIS-2 exceeded the applicable standard in 2019. NAPIS-2 MTBE concentrations in 2019 did not exceed the applicable standard. In the samples collected from NAPIS-3, benzene (third quarter), ethylbenzene (first quarter), and MTBE (all four quarters) were detected in concentrations below applicable standards. The benzene concentrations in KA-4 exceeded the applicable standard in all four quarters 2019. The reported concentrations of ethylbenzene, total xylenes, and MTBE in KA-4 did not exceed applicable standards (Table 8.8).
- Fluoride concentrations exceeded the applicable standard in NAPIS-2 in all four quarters 2019. Chloride concentrations exceeded the applicable standard in NAPIS-3 in all four quarters 2019.
- DRO was detected above the applicable standard in NAPIS-2 (all four quarters) and KA-3 (first, second, and third quarter). GRO was detected above the applicable standard in NAPIS-2 (all four quarters), NAPIS-3 (first, second, and third quarters), and KA-3 (all four quarters). MRO has not been detected in any of the NAPIS-2, NAPIS-3 or KA-3 wells (Table 8.8.1).
- In NAPIS-2, barium (total), iron (total and dissolved), and manganese (total and dissolved) were detected at concentration levels exceeding applicable standards in 2019. In NAPIS-3, iron (total), manganese (total), and uranium (total and dissolved) were detected at concentration levels exceeding applicable standards in 2019. Manganese (total and dissolved) and iron (total) was detected in KA-3 at concentration levels exceeding applicable standards in 2019 (Table 8.8.2 and Table 8.8.3).
- In NAPIS-2, 1-methynaphthalene (third and fourth quarters) and 2-methylnaphthalene (fourth quarter) were detected at concentration levels exceeding applicable standards. In KA-3, 1-methynaphthalene was detected at a concentration in the third quarter exceeding the applicable standard (Table 8.8.4).

### 6.2.3 LEAK DETECTION UNITS: EAST LDU, WEST LDU, and OIL SUMP LDU

The NAPIS secondary containment units otherwise known as leak detection units (LDU) are installed on the east and west bay of the NAPIS. The East LDU is located on the southeast corner in the east bay of the NAPIS between the unit



and NAPIS-1. The Oil Sump LDU is located on the northeast side of the NAPIS. The West LDU is located in the southwest corner of the west bay of the NAPIS.

The LDUs are inspected and if water is present, then samples are collected on a quarterly basis. In agreement with OCD and approved by NMED, the third quarter sampling was combined with the annual sample event. The LDUs were sampled for the following analytes in 2019: VOCs, DRO, GRO, MRO, and WQCC metals (total and dissolved). The East LDU, West LDU and Oil Sump LDU are three leak detection units on the NAPIS Unit which are inspected for fluid level. The LDUs are sampled if fluid is present. Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarterly gauging and sampling. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event. The Oil Sump LDU was dry in all four quarters.

SAMPLE ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>EAST LDU</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19	5/28/19	8/22/19	11/19/19
<b>WEST LDU</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19	5/28/19	8/22/19	11/19/19
<b>OIL SUMP LDU</b>	3/28/19 NS-H <sub>2</sub> S 4/09/19 NS-DRY	5/28/19 NS-DRY	8/22/19 NS-DRY	11/19/19 NS-DRY

NS-H<sub>2</sub>S – Not gauged or sampled due to high H<sub>2</sub>S readings in the ambient air.

NS-DRY – Not sampled, dry.

- East LDU samples were reported to contain benzene, DRO, and GRO concentrations exceeding applicable standards in all four quarters. Detectable concentrations of toluene, ethylbenzene, and total xylenes were reported in the samples. Low concentrations of MTBE were detected in the first and third quarters.
- In the first and second quarters, the samples from West LDU reported benzene concentrations exceeding the applicable standard. West LDU samples were reported to contain DRO and GRO concentrations exceeding applicable standards in all four quarters. Detectable concentrations of ethylbenzene and total xylenes were reported in the samples. MTBE was detected in the first, third, and fourth quarters of 2019 (Table 8.10.1).
- In 2019, chromium (total), iron (total and dissolved), and manganese (total and dissolved) were detected in concentrations exceeding applicable standards in the East LDU. The samples collected from the West LDU in 2019 had chromium (total and dissolved), iron (total and dissolved), and manganese (total and dissolved) concentrations exceeding applicable standards (Table 8.10.1 and Table 8.10.2).
- Concentrations of the organic compounds 1,2,4-trimethylbenzene, naphthalene, and 1-methylnaphthalene exceeded applicable standards in the East LDU in 2019. Low concentrations of the organic compounds 1,2,4-trimethylbenzene, 1-methylnaphthalene, acetone, sec-butyl benzene, and trichloroethene were detected in the West LDU in 2019 (Table 8.10.3).



#### 6.2.4 GROUNDWATER MONITORING WELL: OAPIS-1

The OAPIS-1 groundwater monitoring well was installed in 2012 on the southeast edge of Aeration Lagoon 2 (AL-2) as a result of the Investigation Work Plan for SMWU No. 1 (Aeration Basin) and SMWU No. 14 (Old API Separator). OAPIS1 is screened in the Chinle/Alluvium Interface stratigraphic unit. The OAPIS-1 well was added to the quarterly sample schedule in 2013. In agreement with OCD and as approved by NMED, the third quarter sample event was combined with the annual sample event.

In 2019, groundwater samples were collected from OAPIS-1 and analyzed for the following analytes: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, WQCC metals (total and dissolved) and cyanide. The OAPIS-1 well was inspected and sampled on the following dates in 2019:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
OAPIS-1	3/25/19	5/08/19	8/22/19	10/21/19

- Benzene and MTBE have exceeded applicable standards since 2013. Detectable concentrations of toluene, ethylbenzene, and total xylenes were present at concentrations below applicable standards in 2019 (Table 8.9).
- The fluoride concentrations in the second and fourth quarters exceeded the applicable standard. The chloride, DRO, and GRO concentrations exceeded applicable standards in all four quarters of 2019. MRO was not detected in 2019 (Table 8.9.1).
- Arsenic, iron, and manganese concentrations exceeded applicable standards in OAPIS-1 in 2019.
- Detection of total metals above applicable standards include the following (Table 8.9.2):
  - Arsenic – First quarter;
  - Iron – All four quarters; and
  - Manganese – All four quarters.
- Detection of dissolved metals above applicable standards include the following (Table 8.9.3):
  - Iron – All four quarters; and
  - Manganese – All four quarters.
- Low concentrations of organic compounds were detected in 2019 in OAPIS-1. The reported concentrations of 1-methylnaphthalene (all four quarters), and bis(2-ethylhexyl) phthalate (second and fourth quarters) exceeded applicable standards.

#### 6.2.5 GROUNDWATER MONITORING WELLS: STP1-NW, STP1-SW, OW-59, OW-60, and OW-62

Monitoring well STP1-NW is located on the west end of the north bay (STP-1) and STP1-SW is located on the southwest corner of the south bay of STP-1. Observation wells OW-59 and OW-60 were installed in June 2017 and are located to the northwest. OW-62 was installed in March 2018 during the French Drain release investigation. OW-62 is located to the southeast of STP-1. Ground water samples were analyzed for the following analytes: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, and WQCC metals (total and dissolved).



The wells were inspected and groundwater samples collected on the dates listed below in 2019. STP1-SW was not gauged in 2019. Access to the well was not permitted during 2019 due to high concentrations of H<sub>2</sub>S in the atmosphere. OW-62 was not sampled in 2019 due to the presence of SPH during all four quarters. The SPH thicknesses ranged from 0.43 feet (third quarter) to 1.20 feet (first quarter).

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>STP1-NW</b>	2/13/19	5/08/19	8/21/19	10/22/19
<b>STP1-SW</b>	2/13/19 NS-H <sub>2</sub> S	5/08/19 NS-H <sub>2</sub> S	8/21/19 NS-H <sub>2</sub> S	10/22/19 NS-H <sub>2</sub> S
<b>OW-59</b>	2/13/19	5/02/19	8/21/19	10/15/19
<b>OW-60</b>	2/13/19	5/02/19	8/21/19	10/15/19
<b>OW-62</b>	2/19/19 NS-SPH	5/15/19 NS-SPH	8/19/19 NS-SPH	11/18/19 NS-SPH

NS – Well was not sampled.

- STP1-SW was not gauged in 2019. Access to the STP1-SW was not permitted during 2019 due to high concentrations of H<sub>2</sub>S in the atmosphere.
- BTEX and MTBE was not detected in STP1-NW in 2019. BTEX was not detected in OW-59 in 2019. A low benzene concentration was detected in OW-60 in the third quarter 2019. Low concentrations of MTBE were detected in OW-59 and OW-60 in 2019 (Table 8.14).
- Chloride and nitrate concentrations exceeded applicable standards in STP1-NW. Chloride and sulfate concentrations exceeded applicable standards in OW-59. Chloride, nitrite, nitrate, and sulfate concentrations exceeded applicable standards in OW-60 (Table 8.14.1).
- DRO, GRO, and MRO were not detected in STP1-NW and OW-60 in 2019. DRO and GRO were detected above the applicable standards in all four quarters of 2019 in OW-59. MRO was not detected in OW-59 in 2019 (Table 8.14.1).
- The chromium (total) concentration exceeded the applicable standard in OW-60 in the four quarter of 2019. Iron (total) concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60 in 2019. Manganese (total) concentrations exceeded the applicable standard in OW-59 and OW-60 in 2019. Uranium (total) concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60 (Table 8.14.2).
- Uranium (dissolved) concentrations exceeded the applicable standard in STP1-NW (first, second and third quarters), OW-59 (second and third quarters), and OW-60 (first, second and third quarters) (Table 8.14.3).
- Low concentrations of organic compounds acetone, bis(2-ethylhexyl) phthalate, and 1,2,4-trimethylbenzene were detected during the monitoring events in 2019 (Table 8.14.4).

### 6.3 CONSTITUENT LEVELS IN GROUP C MONITORING WELLS

The Group C wells include 16 observation wells and four recovery wells. Observation well OW-14 is adjacent to the liquefied petroleum gas (LPG) compound while OW-13, OW-29, and OW-30 are located north of the tank farm. Observation wells OW-50 and OW-52 were installed in 2009 per NMED and monitors the potential for contaminant



migration offsite. OW-53, OW-54, OW-55, and OW-56 were installed in 2016 pursuant to NMED's direction to investigate the area near the North Drainage Ditch and provide additional wells to the northwest of OW-29 and OW-30. OW-57 and OW-58 were installed in 2016 in the northeast corner of the tank farm as part of the OW-14 Source Area Investigation. OW-61, OW-63, OW-64 and OW-65 were installed in March 2018 during the French Drain release investigation.

The recovery wells were installed between 1987 and 1990 and have been used to recover SPH. Recovery well RW-1 is located within the tank farm east of Tank 568. RW-2 is located on the southwest side of Tank 576. Recovery well RW-5 and RW-6 are located northeast of Tank 345. BTEX concentrations and SPH were detected in ground water and SPH recovery continues quarterly. The SPH column thickness in RW-1 decreased during 2018. Measurable SPH has not been detected in RW-2. SPH was not detected in RW-5 and RW-6 since 2009 and 2011, respectively, before SPH was detected in both RW-5 and RW-6 during the second quarterly sampling event of 2017. As summarized in Table 9.1 the SPH thicknesses in both wells decreased from 2017 through 2018. Fluid recovery pumps have been installed in RW-1, RW-2, RW-5, RW-6, OW-14, OW-30, OW-54, and OW-55. The Interim Groundwater Recovery System was approved in 2019 and limited fluid recovery was conducted. Fluid recovery from RW-1, RW-2, RW-5, and RW-6 is summarized in Appendix C. Fluid recovery from the other wells for 2019 is summarized below:

- OW-14 – 569.25 gallons;
- OW-30 – 1,070.85 gallons;
- OW-54 – 1,755 gallons; and
- OW-55 – 1,845 gallons.

#### **6.3.1 OBSERVATION WELLS: OW-13, OW-14, OW-29, OW-30, OW-50, OW-52, OW-53, OW-54, OW-55, and OW-56**

All of these observation wells are screened in the Chinle/Alluvium Interface, with the exception of observation well OW-13, which is screened in the Sonsela stratigraphic unit. These wells are located to the north and downgradient of the tank farm. OW-14 is adjacent to the LPG tank farm. OW-29 is located directly north of OW-14 and OW-30 is situated northeast of OW-14 along the east side of the railroad spur entering the refinery property from the north. Observation wells OW-53, OW-54 and OW-55 were installed in 2016 to the northwest and west of OW-29 and OW-30 to evaluate potential downgradient migration of constituents detected in these two wells. OW-53 has not contained water since being installed and remained dry throughout 2019. OW-56 was also installed in 2016 and is located north of the tank farm near the North Drainage Ditch. OW-50 and OW-52 were already located further north to evaluate the potential for migration to the north. These observation wells are sampled quarterly and in agreement with OCD, approved by NMED, the third quarter sampling event is combined with the annual sampling requirement per the OCD discharge permit. Sampling was



conducted at OW-50 and OW-52 on an annual basis, as past analyses had not detected the presence of constituents of concern (e.g., MTBE or BTEX). In the last quarter of 2016, MTBE and 1,2-dichloroethane were detected at low concentrations. Based on these new detections, NMED directed that sampling be increased to a quarterly frequency. The wells were sampled during the third and fourth quarter of 2018.

Groundwater samples were collected from these observation wells and submitted for laboratory analyses of the following analytes: VOCs, DRO, GRO, MRO, major cations/anions, and WQCC metals (total and dissolved). The observation wells were sampled/inspected on the following dates in 2019:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>OW-13</b>	2/05/19	5/01/19	8/12/19	10/14/19
<b>OW-14</b>	2/05/19	5/01/19	8/12/19 NS-RW	11/01/19 NS-RW
<b>OW-29</b>	2/05/19	5/01/19	8/12/19	10/14/19
<b>OW-30</b>	3/27/19	6/05/19	8/12/19 NS-RW	11/01/19 NS-RW
<b>OW-50</b>	3/27/19	5/01/19	8/16/19	10/15/19
<b>OW-52</b>	3/27/19	5/01/19	8/16/19	10/15/19
<b>OW-53</b>	2/06/19 NS-DRY	5/02/19 NS-DRY	8/21/19 NS-DRY	10/15/19 NS-DRY
<b>OW-54</b>	2/06/19	5/02/19	8/21/19	10/15/19 NS-RW
<b>OW-55</b>	2/06/19	5/02/19	8/21/19 NS-RW	10/15/19 NS-RW
<b>OW-56</b>	2/06/19	5/02/19	8/21/19	10/15/19

NS – Well was not sampled. RW – Well was converted to a fluid recovery well.

The following text discusses the 2019 analytical results for groundwater samples collected from monitor wells OW-13, OW-14, OW-29, and OW-30.

- BTEX and MTBE Analytical Results – Table 8.13
  - A low concentration of benzene was reported in the second quarter 2019 for OW-13. Low concentrations of MTBE continue to be detected below the applicable standard;
  - The 2019 benzene and MTBE concentrations for OW-14 were above applicable standards for all four quarters. In the second quarter 2019, the ethylbenzene concentration slightly exceeded the applicable standard in OW-14. There were detectable concentrations of toluene and total xylenes in 2019;



- A low concentration of ethylbenzene was reported for OW-29 in the first quarter. The MTBE concentrations were above the applicable standard for all four quarters 2019; and
- No detectable concentrations of BTEX were reported in 2019 for OW-30. MTBE concentrations were reported above the applicable standard in all four quarters of 2019.
- DRO/GRO/MRO Analytical Results – Table 8.13.1
  - DRO was detected above the applicable standard in OW-14 (all four quarters) and OW-30 (all four quarters);
  - GRO was detected above the applicable standard in OW-13, OW-14, OW-29, and OW-30 in all four quarters of 2019; and
  - MRO was not detected in any of the wells during 2019.
- Total Metals – Table 8.13.2 and Dissolved Metals – Table 8.13.3
  - No metals concentrations were detected in OW-13 that exceeded applicable standards in 2019;
  - Barium, iron, and manganese were detected at concentrations above applicable standards in 2019 in OW-14;
  - In OW-29, manganese and uranium were detected at concentrations above applicable standards in 2019; and
  - Uranium concentrations were above the applicable standard in 2019 in OW-30.
- Volatile Organic Compounds – Table 8.13.4
  - In OW-13, low concentrations of 1,2-dichloroethane, acetone, and 2-butanone were reported in 2019;
  - In OW-14, concentrations of 1,2,4-trimethylbenzene, 1-methylnaphthalene, naphthalene, isopropylbenzene, and n-propylbenzene were reported in the samples collected in 2019. The 1-methylnaphthalene and naphthalene concentrations exceeded applicable standards;
  - In OW-29, a low concentration of 1,2-dichloroethane was detected in the fourth quarter 2019; and
  - In OW-30 a low concentration of 1,2,4-trimethylbenzene was detected in the first quarter 2019.

The following text discusses the 2019 analytical results for groundwater samples collected from monitor wells OW-50 and OW-52.

- Low concentrations of benzene were detected in OW-50 and OW-52 in the second quarter 2019. Toluene, ethylbenzene, total xylenes, DRO, GRO, and MRO have not been detected in either OW-50 or OW-52 since 2010. Low concentrations of MTBE have been detected in both wells in 2016, 2017, 2018, and 2019. (Table 8.5 and Table 8.5.1).
- Low concentrations of total arsenic, barium, chromium, iron, lead, manganese, mercury, uranium, and zinc were detected in OW-50 and OW-52 in 2019 (Table 8.5.2).
- Low concentrations of dissolved arsenic, barium, copper, iron, manganese, uranium, and zinc were detected in OW-50 and OW-52 in 2019 (Table 8.5.3).
- Low concentrations of benzoic acid were detected in OW-50 and OW-52 in 2019 (Table 8.5.4).
- 1,2-dichloroethane (EDC) and acetone were detected in OW-50 and OW-52 in 2019 (Table 8.5.5).

The following text discusses the 2019 analytical results for groundwater samples collected from monitor wells OW-54, OW-55, and OW-56.

- BTEX and MTBE Analytical Results – Table 8.5



- In OW-54 and OW-55, benzene and MTBE concentrations exceeded applicable standards during all four quarters. Toluene, ethylbenzene, and total xylenes were detected at concentrations below applicable standards; and
- In OW-56, there were no detectable concentrations of benzene, toluene, and MTBE that exceeded applicable standards in 2019.
- DRO/GRO/MRO - Anions Analytical Results – Table 8.5.1
  - DRO and GRO exceeded applicable standards in OW-54, OW-55, and OW-56 in 2019. GRO concentrations exceeded the applicable standard in all wells in 2019;
  - MRO was not detected in any of the wells during 2019; and
  - Chloride concentrations for OW-55 and OW-56 exceeded the applicable standard in 2019.
- Total Metals – Table 8.5.2 - The concentrations of the following total metals exceeded applicable standards in 2019:
  - OW-54 – Iron (all quarters), manganese (all quarters), and uranium (all quarters);
  - OW-55 – Iron (all quarters) and manganese (all quarters); and
  - OW-56 – Iron (all quarters) and manganese (second, third, and fourth quarters).
- Dissolved Metals – Table 8.5.3 - The concentrations of the following dissolved metals exceeded applicable standards in 2019:
  - OW-54 – Manganese (all quarters), and uranium (all quarters);
  - OW-55 – Iron (all quarters) and manganese (all quarters); and
  - OW-56 – No concentrations exceeded applicable standards.
- Semi-Volatile Organic Compounds – Table 8.5.4 - The concentrations of the following organic compounds exceeded applicable standards in 2019:
  - OW-54 – No exceedances occurred;
  - OW-55 – 1-Methylnaphthalene (all quarters) and phenol (all quarters); and
  - OW-56 – No exceedances occurred.
- Volatile Organic Compounds – Table 8.5.5 - The concentrations of the following organic compounds exceeded applicable standards in 2019:
  - OW-54 – No exceedances occurred;
  - OW-55 – 1,2,4-Trimethylbenzene (all quarters), naphthalene (second quarter), and 1-methylnaphthalene (second quarter); and
  - OW-56 – 1,2-dichloroethane (first, third, and fourth quarters).

### **6.3.2 OBSERVATION WELLS: OW-57, OW-58, and OW-58A**

Observation wells OW-57 and OW-58 were installed upgradient from OW-14 and OW-30 in 2016 to monitor possible migration of BTEX and MTBE. Observation well OW-58A was installed during the fourth quarter 2019 as a twin well adjacent to OW-58. NMED requested the installation OW-58A near OW-58 to address its concern that the water level measured in OW-58 was above the top of the well screen and could hinder the investigation of SPH. The observation wells are screened in the Chinle/Alluvium Interface stratigraphic unit. Sampling dates are listed below.



WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>OW-57</b>	2/20/19	5/16/19	8/21/19	11/05/19
<b>OW-58</b>	3/28/19	6/05/19	8/22/19	11/18/19
<b>OW-58A</b>	NI	NI	NI	12/03/19

NI – Well not installed.

The following text discusses the 2019 analytical results for groundwater samples collected from observation wells OW-57, OW-58, and OW-58A.

- BTEX and MTBE Analytical Results – Table 8.5
  - BTEX and MTBE was detected in the wells during all quarters of 2019;
  - Benzene concentrations exceeded the applicable standard in OW-57, OW-58, and OW-58A in 2019;
  - MTBE concentrations exceeded the applicable standards in OW-57 (first quarter), OW-58 (all four quarters), and OW-58A (fourth quarter) of 2019;
  - Ethylbenzene concentrations exceeded the applicable standard in all four quarters in OW-58; and
  - The concentration of total xylenes in OW-58A exceeded the applicable standard.
- DRO/GRO/MRO and Anions Analytical Results – Table 8.5.1
  - DRO and GRO concentrations exceeded applicable standards in OW-57, OW-58, and OW-58A during all quarters;
  - MRO was not detected in the wells; and
  - Fluoride, chloride, nitrite, and sulfate were reported above the detection limit in 2019. None of the concentrations exceeded applicable standards.
- Metals (Total and Dissolved) – Table 8.5.2 and Table 8.5.3
  - Barium, iron, and manganese concentrations exceeded applicable standards in all four quarters in 2019 in OW-57 and OW-58; and
  - Iron and manganese concentrations exceeded applicable standards in OW-58A.
- Semi-Volatile Organic Compounds – Table 8.5.4
  - Low concentrations of acenaphthene, benzoic acid, bis(2-ethylhexyl) phthalate, carbazole, di-n-octyl phthalate, fluorene, 2-methylphenol, 3+4-methylphenol, phenanthrene, 1,4-dioxane, and dibenzofuran were detected in 2019; and
  - Reported concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and phenol exceeded applicable standards in 2019.
- Volatile Organic Compounds – Table 8.5.5
  - Low concentrations of acetone, isopropylbenzene, 4-isopropyltoluene, n-butylbenzene, n-propylbenzene, and sec-butylbenzene were detected in 2019; and
  - Reported concentrations of 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene exceeded applicable standards in 2019.



### 6.3.3 OBSERVATION WELLS: OW-61, OW-63, OW-64, and OW-65

OW-61, OW-63, OW-64, and OW-65 were installed in March 2018 during the French Drain release investigation. OW-61 is located approximately 190 feet southwest from the middle of Tank 572. OW-63 is located approximately 210 feet north-northwest from the middle of Tank 579. OW-64 is located approximately 140 feet north-northwest from the middle of Tank 338. OW-65 is located approximately 170 feet west-northwest from the middle of Tank 571. OW-61 and OW-65 contained SPH in 2019 and were not sampled. OW-64 contained SPH in the first quarter and was not sampled. OW-64 was sampled during the second, third, and fourth quarter 2019. OW-64 contained SPH in the first quarter and was not sampled.

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>OW-61</b>	2/19/19 NS-SPH	5/15/19 NS-SPH	8/20/19 NS-SPH	11/04/19 NS-SPH
<b>OW-63</b>	2/20/19	5/15/19	8/19/19	11/18/19
<b>OW-64</b>	2/19/19 NS-SPH	5/15/19	8/19/19	11/18/19
<b>OW-65</b>	2/19/19 NS-SPH	5/15/19 NS-SPH	8/20/19 NS-SPH	11/04/19 NS-SPH

The following text discusses the 2019 analytical results for groundwater samples collected from observation wells OW-63 and OW-64.

- BTEX and MTBE Analytical Results – Table 8.5
  - BTEX and MTBE were detected in OW-63 in 2019. BTEX was detected in OW-64 in 2019. MTBE was not detected in OW-64 in 2019;
  - Benzene concentrations exceeded the applicable standard in OW-63 and OW-64 in 2019; and
  - Ethylbenzene concentrations exceeded the applicable standard in all four quarters in OW-63.
- DRO/GRO/MRO and Anions Analytical Results – Table 8.5.1
  - DRO and GRO concentrations exceeded applicable standards in OW-63 and OW-64 in 2019;
  - MRO was not detected in the wells; and
  - Fluoride, chloride, nitrate, and sulfate were reported above the detection limit in 2019. The fluoride concentrations reported from OW-64 exceeded the applicable standard.
- Metals (Total) – Table 8.5.2
  - Arsenic, barium, iron, and manganese concentrations exceeded applicable standards in 2019 in OW-63; and
  - Iron and manganese concentrations exceeded applicable standards in 2019 in OW-64.
- Metals (Dissolved) – Table 8.5.3
  - Arsenic, barium, iron, and manganese concentrations exceeded applicable standards in 2019 in OW-63; and
  - Manganese concentrations exceeded applicable standards in 2019 in OW-64.
- Semi-Volatile Organic Compounds – Table 8.5.4



- Low concentrations of acenaphthene, benzoic acid, bis(2-ethylhexyl) phthalate, carbazole, 2,4-dimethylphenol, fluorene, fluoranthene, phenanthrene, and pyrene were detected in 2019;
  - Reported concentrations of 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and phenol exceeded applicable standards in 2019 in OW-63; and
  - No exceedances occurred in OW-64.
- Volatile Organic Compounds – Table 8.5.5
- Low concentrations of 1,3,5-trimethylbenzene, acetone, 2-butanone, isopropylbenzene, 4-isopropyltoluene, n-butylbenzene, and n-propylbenzene were detected in 2019;
  - Reported concentrations of 1,2,4-trimethylbenzene in OW-64 exceeded applicable standards in 2019; and
  - Reported concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene in OW-63 exceeded applicable standards in 2019.

### 6.3.4 RECOVERY WELLS: RW-1, RW-2, RW-5, and RW-6

The recovery wells RW-1, RW-2, RW-5, and RW-6 are shallow wells installed in the refinery tank farm located in the east-central portion of the refinery property. The recovery wells are screened within the Chinle/Alluvium Interface stratigraphic unit and are used to recover SPH. RW-1 is located east-northeast of Tank 716; RW-2 is located between Tanks 574 and 576; and RW-5 and RW-6 are located in the northwest corner of the tank farm, east of Tanks 337 and 345.

Quarterly inspections for the RW wells include product recovery of SPH using disposable rope and bailers in RW-5, RW-6, and RW-1. Hydrocarbon thickness is measured prior to being removed. Purge water is collected and disposed upstream of the NAPIS. Hydrocarbon recovery is estimated based on measurements and observations.

The RW wells were added to the annual sampling schedule in 2011, per the Approval with Modifications in the 2010 FWGWMP. None of the recovery wells were gauged or sampled in 2019 due to the installation of a fluid recovery pump in each well. The recovery wells were inspected in 2019 on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>RW-1</b>	3/28/19 NG-NS	5/08/19 NG-NS	8/16/19 NG-NS	11/01/19 NG-NS
<b>RW-2</b>	3/28/19 NG-NS	5/08/19 NG-NS	8/16/19 NG-NS	11/01/19 NG-NS
<b>RW-5</b>	3/28/19 NG-NS	5/08/19 NG-NS	8/16/19 NG-NS	11/01/19 NG-NS
<b>RW-6</b>	3/28/19 NG-NS	5/08/19 NG-NS	8/16/19 NG-NS	11/01/19 NG-NS

NG – Well not gauged. NS – Well was not sampled.



Tables 8.11 through 8.11.5 are included in this report and present historical groundwater analytical data.

Hydrocarbon recovery from RW-1 has shown a steady decrease from 2005 through early 2016. In mid-2016, the recovery rate increased from less than one gallon to 3.5 gallons during the 2016 well purging event. The recovery rate decreased from 4 to 2.5 gallons during the 2017 quarterly gauging events and further reduced to 1.0 gallon in 2018. From a review of the hydrocarbon recovery log for RW-1 in Appendix C, it appears the recovery pump was initially (Feb 2005) operated in a continuous mode while recovery rates were higher. In March 2005, the recovery of SPH was reported at 48 to 74 gallons per week. By July and August, the reported recovery had declined to 18 to 28 gallons for an approximate three-week recovery period. In December 2005, the recovery for two weeks had declined to five gallons of SPH. With the declining recovery volumes of SPH, the recovery method was changed to hand bailing in 2007. The recovery method reverted to using a bladder pump in 2008; however, due to the low recovery volumes the recovery was conducted in conjunction with purging the well for sampling and the pump was not operated on a continuous basis.

An increase in measured product thickness was recorded in RW-1 starting in 2013. The thickness measured in October 2012 was 0.09 feet and showed a sustained increase over time to 4.93 feet in November of 2014. A similar increase in SPH thickness occurred in late 2007 through 2009, with the product thickness decreasing to less than 0.6 feet through late 2012. In 2016, total hydrocarbon recovery is estimated at 8.5 gallons with 53 gallons of water purged compared to the 2005 estimate of 431 gallons of hydrocarbons in 1,210 gallons of water. The measured product thickness decreased to 1.0 feet by the end of 2017, but the total recovery for 2017 was 10.5 gallons of SPH, which represents slight increase from 2016. The measured product thickness in 2018 ranged from 0.26 feet to 0.28 feet. A drop-in 3" diameter x 24" long bladder pump with suction at the top of the pump was used to purge water/hydrocarbons from this well until pump lost suction. The recovery well was never completely purged dry due to suction of the submersible pump being at the top, which left approximately 24" of product/water level remaining in RW-1.

SPH had not been detected in RW-5 and RW-6 since February 2009 and November 2011, respectively, but was detected again in June 2017. A maximum thickness of 8.10 feet was measured in RW-5 in February 2018 that subsequently decreased to 5.38 feet in August 2018. At RW-6, a maximum thickness of 7.40 feet was measured in RW-6 in February 2018 that subsequently decreased to 4.35 feet in August 2018. No SPH was recovered from RW-5 and RW-6 in 2018, as recovery pumps were installed, but approval to begin use of the pumps was not granted. In 2019, recovery pumps were installed in RW-1 and RW-2. The interim groundwater recovery system was approved in 2019 and limited fluid recovery was conducted. The fluid recovery logs are included in Appendix C.



## 6.4 CONSTITUENT LEVELS IN GROUP D MONITORING WELLS

The Group D wells include three process/production wells, PW-2, PW-3, and PW-4 that supply water to the refinery and for domestic uses. These process wells reach approximately 1,000 feet and are screened in the San Andreas/Yeso aquifer. Additionally, Group D also includes four observations wells OW-1, OW-10, OW-11, and OW-12. The OW-1 and OW-10 wells are located in the northwest portion of the refinery and are considered artesian wells. OW-11 is located near the entrance of the refinery and OW-12 is west of the tank farm in the surplus yard.

### 6.4.1 PROCESS WELLS: PW-2, PW-3, and PW-4

PW-2, PW-3, and PW-4 are all process/production wells which supply process water to the refinery and domestic water to the company housing and Travel Center. PW-2 is located west of evaporation pond 6 (EP-6). PW-3 is centrally located directly north of the maintenance shop, and PW-4 is located on the southern edge of the refinery property and adjacent to the Pilot Lift Station.

Production well PW-2 is on a staggered 3-year sampling schedule, PW-3 is sampled on an annual basis since 2010 due to the detection of 2-methylnaphthalene exceeding the applicable standard in 2008. In 2013, three organic compounds were detected in PW-4 at very low concentrations and per NMED directive (HWB-WRG-14-006), sampling of this well was switched to semi-annual in 2017. Groundwater samples are collected for the following analytes: BTEX, MTBE, nitrate, WQCC total and dissolved metals, VOCs and SVOCs.

The process wells were sampled in 2019 on the following dates:

WELL ID	DATES
<b>PW-3</b>	2/20/19, 5/14/19, 8/28/19, and 11/20/19
<b>PW-4</b>	2/20/19, 5/14/19, 8/27/19, and 11/20/19

- No BTEX or MTBE were detected in PW-3 or PW-4 in 2019 (Table 8.6).
- Sulfate was detected above the applicable standard in PW-3 in 2019 (Table 8.6).
- Low concentrations of the following metals (total and dissolved) were detected in the wells in 2019 at levels below applicable standards (Tables 8.6.1 and 8.6.2):
  - Arsenic;
  - Barium;
  - Iron;
  - Manganese;



- Mercury;
- Selenium;
- Uranium; and
- Zinc.
- There were no detectable concentrations of cyanide in the groundwater samples collected from the two wells (Table 8.6.1).
- Low concentrations of the following organic compounds were detected in the wells in 2019 at levels below applicable standards (Table 8.6.3):
  - Acetone – PW-3 (second and third quarter) and PW-4 (second quarter);
  - Benzoic Acid – PW-3 (first quarter) and PW-4 (first quarter);
  - Bis(2-ethylhexyl) phthalate – PW-3 (fourth quarter); and
  - 1,2,4-Trimethylbenzene – PW-4 (second quarter).

The causes of the VOC and SVOC detections is unknown in PW-2, PW-3, and PW-4. The sampling equipment used to collect the samples are the containers that are supplied by the laboratory. Samples are collected from a valve attached to the pipeline. There is not any historical information regarding the drilling fluids or well materials used to install the wells which would confirm potential contamination from these materials. Pipeline coatings, valves/packers and gaskets may be leaching these constituents into the water that is being transported from the well to the point of usage.

#### 6.4.2 OBSERVATION WELLS: OW-1 and OW-10

Observation well OW-1 is an artesian well located on the west side of EP-6. Well OW-10 is located upgradient from OW-1 on the east side of EP-9. Wells OW-1 and OW-10 are screened in the Sonsela stratigraphic unit. Inspection requirements for these two wells were modified in 2010, per the 2010 FWGWMP, and included sampling on a quarterly basis. In agreement with OCD, approved by NMED, the third quarter sampling was combined with the annual sampling event. In 2019, groundwater samples from OW-1 and OW-10 were evaluated for the following analytes: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, and WQCC metals (total and dissolved).

Groundwater samples were collected from OW-1 and OW-10 in 2019 on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
<b>OW-1</b>	3/27/19	5/21/19	8/15/19	10/16/19
<b>OW-10</b>	3/27/19	5/28/19	8/15/19	10/17/19

- BTEX was not detected in OW-1 and OW-10 in 2019. MTBE was detected in low concentrations below the applicable standard in both wells in 2019 (Table 8.12).
- Low concentrations of anions were detected in OW-1 throughout 2019 at concentration levels below applicable standards. The samples collected from OW-10 reported concentrations above the applicable standard for chloride in all four quarters of 2019 (Table 8.12.1).



- DRO, GRO, and MRO were not detected in OW-1 and OW-10 in 2019 (Table 8.12.1).
- The 2019 metals analysis for OW-1 and OW-10 reported uranium (total and dissolved) concentrations above the applicable standard. In the third quarter sample from OW-1, iron and manganese concentrations exceeded applicable standards (Tables 8.12.2 and 8.12.3).
- In 2019, no organic compounds were detected above applicable standards in the groundwater samples collected from OW-1 and OW-10. There were low concentrations of organic compounds detected in 2019 (Table 8.12.4):
  - Acetone – OW-1 (first quarter) and OW-10 (first, third, and fourth quarters);
  - Benzoic Acid – OW-10 (second quarter);
  - 1,2-Dichloroethane (EDC) – OW-10 (third and fourth quarters);
  - 1,1-Dichloroethane – OW-1 (first quarter) and OW-10 (second, third and fourth quarters); and
  - 1,1-Dichloroethene – OW-1 (first quarter) and OW-10 (second, third and fourth quarters).

#### 6.4.3 OBSERVATION WELLS: OW-11 and OW-12

Observation well OW-11 is located within the refinery property (south) on the west side of the main entrance. Well OW-12 is located within the surplus or bone yard located west and slightly north of the primary tank farm. OW-11 and OW-12 are screened in the Sonsela stratigraphic unit.

Well inspections and sampling are conducted annually. In 2019, groundwater samples from the two wells were evaluated for the following analytes: VOCs, major anions/cations, GRO, DRO, MRO, and WQCC metals (total and dissolved). Observation well OW-11 was sampled in the third quarter of 2019. Observation well OW-12 was sampled in the fourth quarter of 2019.

WELL ID	DATE
OW-11	8/20/19
OW-12	12/03/19

- Benzene and ethylbenzene were detected in low concentrations in OW-11 and OW-12 in 2019. MTBE was not detected in OW-11 and OW-12 in 2019 (Table 8.4).
- Fluoride and sulfate concentrations exceeded applicable standards in OW-11 (Table 8.4.1).
- GRO, DRO, and MRO were not detected in OW-11 and OW-12 in 2019 (Table 8.4.1).
- In the groundwater sample from OW-11, the total and dissolved uranium concentrations were reported above the applicable standard. The following metals (total and dissolved) were detected at concentrations below applicable standards in OW-11 and OW-12 in 2019 (Tables 8.4.2 and 8.4.3):
  - Arsenic;
  - Barium;
  - Chromium;
  - Copper;
  - Iron;
  - Lead;



- Manganese;
  - Selenium;
  - Uranium (OW-12); and
  - Zinc.
- Low concentrations of 1,2,4-trimethylbenzene and 1,2-dichloroethane were detected in OW-11 in 2019. A low concentration of acetone was detected in OW-12 in 2019 (Table 8.4.4).

## **6.5 CONSTITUENT LEVELS IN GROUP E MONITORING WELLS**

At the beginning of 2019 Group E wells consisted of 45 monitoring wells that monitor the extent of a hydrocarbon seep discovered in 2013 in an isolated area approximately 100 yards west of the crude tanks T-101 and T-102. During the fourth quarter of 2019 five new MKTF wells were installed to provide additional groundwater monitoring up-gradient of existing monitoring wells. To accomplish this objective, one well (MKTF-46) was installed south of well MKTF-35; one well (MKTF-47) was installed east of MKTF-37; one well (MKTF-48) was installed east of well MKTF-39; one well (MKTF-49) was installed northwest of crude oil storage tank TK102; and one well (MKTF-50) was installed north of crude oil storage tank TK101. The wells were developed and groundwater samples were collected from each well in December 2019. The fluid level gauging results and analytical data results are included in this report. The five new wells will be included in the facility-wide groundwater monitoring plan. Each of the wells has been constructed into permanent monitoring wells, and these wells are designated as Group E wells.

Monitor well MKTF-36 is a flush mount completion located in the truck loading rack area. The asphalt in the area of MKTF-36 was destroyed by truck traffic. MKTF-36 was not gauged or sampled during the four quarterly monitor events in 2019. In October 2019 the well was located using ground-penetrating radar. In November 2019 the surface completion at MKTF-36 was replaced. The well was gauged and contained SPH. MKTF-36 was not sampled.

Wells that had a measurable hydrocarbon layer of 0.01 feet or greater were not sampled in 2019. The following wells contained SPH during the monitoring events:

- MKTF-1, MKTF-3, MKTF-5, MKTF-6, MKTF-7, MKTF-8, MKTF-12, MKTF-14, MKTF-26, and MKTF-45 – All four quarters;
- MKTF-15 – First, third and fourth quarters;
- MKTF-18 – Third quarter;
- MKTF-23 – Second and third quarter;
- MKTF-36 – Fourth quarter; and
- MKTF-37 – Second, third, and fourth quarter.



In 2019, groundwater samples were collected from the MKTF wells and evaluated for the following analytes: VOCs, SVOCs, DRO, GRO, MRO, major cations/anions, and metals (total and dissolved).

- Benzene concentrations exceeded the applicable standard in the following wells: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-27, MKTF-35, MKTF-37, MKTF-39, MKTF-42, MKTF-48, MKTF-49, and MKTF-50. The highest benzene concentration (21 mg/L) occurred in well MKTF-16 during the first quarter 2019 (Table 8.17).
- Toluene concentrations exceeded the applicable standard in the following wells: MKTF-11, MKTF-15, MKTF-17, MKTF-23, and MKTF-49. The highest toluene concentration (23 mg/L) occurred in MKTF-17 during the fourth quarter 2019 (Table 8.17).
- Ethylbenzene concentrations exceeded the applicable standard in the following wells: MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-49, and MKTF-50. The highest concentration (1.8 mg/L) occurred in MKTF-15 during the second quarter of 2019 (Table 8.17).
- Total xylenes concentrations exceeded the applicable standard in the following wells: MKTF-4, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, and MKTF-49. The highest concentration (7.9 mg/L) occurred in MKTF-10 in the first and second quarters 2019 (Table 8.17).
- MTBE concentrations exceeded the applicable standard in the following wells: MKTF-4, MKTF-9, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-31, MKTF-32, MKTF-33, and MKTF-35. The highest concentration (8.3 mg/L) occurred in MKTF-19 in the third quarter 2019 (Table 8.17).
- The DRO concentrations exceeded the applicable standard in the following wells: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-27, MKTF-29, MKTF-31, MKTF-35, MKTF-36, MKTF-37, MKTF-39, MKTF-42, MKTF-48, MKTF-49, and MKTF-50. The highest concentration (2,200 mg/L) occurred in MKTF-23 in the fourth quarter 2019 (Table 8.17.1).
- The GRO concentrations exceeded the applicable standard in the following wells: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-30, MKTF-31, MKTF-32, MKTF-33, MKTF-35, MKTF-37, MKTF-39, MKTF-42, MKTF-44, MKTF-48, MKTF-49, and MKTF-50. The highest concentration (82 mg/L) occurred in MKTF-49 in the fourth quarter 2019 (Table 8.17.1).
- The MRO concentrations exceeded the applicable standard in MKTF-16 and MKTF-17. The highest concentration (16 mg/L) occurred in MKTF-16 in the second quarter 2019 (Table 8.17.1).
- Fluoride concentrations exceedances above the applicable standard were found in MKTF-21 and MKTF-50 (Table 8.17.1).
- Chloride concentrations exceeded the applicable standard in the following wells: MKTF-2, MKTF-4, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-20, MKTF-21, MKTF-23, MKTF-24, MKTF-25, MKTF-27, MKTF-28, MKTF-29, MKTF-30, MKTF-31, MKTF-32, MKTF-34, MKTF-38, MKTF-39, MKTF-40, MKTF-41, MKTF-42, MKTF-43, MKTF-44, MKTF-46, MKTF-47, MKTF-49, and MKTF-50 (Table 8.17.1).
- Nitrite concentrations exceeded the applicable standard in MKTF-20, MKTF-21, MKTF-27, MKTF-28, MKTF-39, and MKTF-40 (Table 8.17.1).
- Nitrate concentrations exceeded the applicable standard in MKTF-26, MKTF-34, MKTF-43, MKTF-44, and MKTF-47 (Table 8.17.1).
- Sulfate concentrations exceeded the applicable standard in MKTF-21, MKTF-27, MKTF-38, and MKTF-40 (Table 8.17.1).
- Total metals above applicable standards were detected in the following wells in 2019 (Table 8.17.2):
  - Arsenic: MKTF-4, MKTF-11, MKTF-16, MKTF-19, MKTF-20, and MKTF-21;



- Barium: MKTF-4, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-35, MKTF-39, MKTF-49, and MKTF-50;
  - Iron: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-24, MKTF-25, MKTF-27, MKTF-28, MKTF-29, MKTF-30, MKTF-31, MKTF-32, MKTF-33, MKTF-34, MKTF-35, MKTF-38, MKTF-39, MKTF-40, MKTF-41, MKTF-43, MKTF-44, MKTF-47, MKTF-49, and MKTF-50;
  - Lead: MKTF-19 and MKTF-26;
  - Manganese: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-27, MKTF-28, MKTF-29, MKTF-30, MKTF-33, MKTF-35, MKTF-37, MKTF-38, MKTF-39, MKTF-40, MKTF-41, MKTF-43, MKTF-46, MKTF-48, MKTF-49, and MKTF-50; and
  - Uranium: MKTF-2, MKTF-25, MKTF-27, MKTF-28, MKTF-30, MKTF-31, MKTF-32, MKTF-33, MKTF-40, MKTF-43, and MKTF-44.
- Dissolved metals concentrations above applicable standards were noted in the following wells (Table 8.17.3):
- Arsenic: MKTF-11, MKTF-16, MKTF-19, MKTF-20, MKTF-21, MKTF-27, and MKTF-50;
  - Barium: MKTF-4, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-18, MKTF-20, MKTF-21, MKTF-39, MKTF-49, and MKTF-50;
  - Iron: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-24, MKTF-35, MKTF-39, MKTF-49, and MKTF-50;
  - Manganese: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-27, MKTF-29, MKTF-33, MKTF-35, MKTF-37, MKTF-38, MKTF-39, MKTF-43, MKTF-46, MKTF-48, MKTF-49, and MKTF-50; and
  - Uranium: MKTF-2, MKTF-25, MKTF-27, MKTF-28, MKTF-29, MKTF-30, MKTF-31, MKTF-32, MKTF-33, MKTF-40, MKTF-43, and MKTF-44.

Eight semi-volatile organic compounds were detected in MKTF wells in 2019 at concentrations above applicable standards and are listed as follows:

- Bis(2-ethylhexyl) phthalate: MKTF-13 and MKTF-21;
- 1,4-Dioxane: MKTF-2, MKTF-4, MKTF-9, MKTF-11, MKTF-16, MKTF-18, MKTF-19, MKTF-21, MKTF-22, MKTF-24, MKTF-25, MKTF-27, MKTF-30, MKTF-31, MKTF-32, MKTF-39, and MKTF-40;
- 1-Methylnaphthalene: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-21, MKTF-22, MKTF-23, MKTF-37, MKTF-39, MKTF-42, MKTF-48, and MKTF-49;
- 2-Methylnaphthalene: MKTF-4, MKTF-10, MKTF-13, MKTF-19, MKTF-21, MKTF-23, MKTF-37, MKTF-39, MKTF-42, and MKTF-49;
- Naphthalene: MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, MKTF-39, MKTF-49, and MKTF-50;
- Phenanthrene: MKTF-23;
- Phenol: MKTF-2, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-37, MKTF-49, and MKTF-50; and
- 2,4,6-Trichlorophenol: MKTF-21.

In addition to BTEX and MTBE, twelve volatile organic compounds were detected in MKTF wells in 2019 at concentrations above applicable standards and are listed as follows:



- 1,2,4-Trimethylbenzene: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, MKTF-49, and MKTF-50;
- 1,3,5-Trimethylbenzene: MKTF-2, MKTF-4, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, MKTF-49, and MKTF-50;
- 1,2-Dichloroethane (EDC): MKTF-2, MKTF-24, MKTF-25, MKTF-31, MKTF-32, MKTF-37, and MKTF-42;
- 1,2-Dibromoethane (EDB): MKTF-2, MKTF-24, MKTF-31, MKTF-37, and MKTF-42;
- Naphthalene: MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, MKTF-39, MKTF-42, MKTF-49, and MKTF-50;
- 1-Methylnaphthalene: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-13, MKTF-15, MKTF-16, MKTF-17, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-24, MKTF-37, MKTF-39, MKTF-42, and MKTF-50;
- 2-Methylnaphthalene: MKTF-4, MKTF-10, MKTF-13, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-37, MKTF-39, and MKTF-50;
- 1,1-Dichloroethane: MKTF-2, MKTF-10, MKTF-11, MKTF-16, MKTF-23, MKTF-24, MKTF-25, MKTF-30, MKTF-31, and MKTF-37;
- 1,1-Dichloroethene: MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-22, MKTF-23, MKTF-24, MKTF-25, MKTF-31, MKTF-32, MKTF-37, and MKTF-41;
- Methylene Chloride: MKTF-16;
- Trichloroethene (TCE): MKTF-25, MKTF-31, and MKTF-37; and
- Vinyl Chloride: MKTF-2, MKTF-10, MKTF-11, MKTF-15, MKTF-23, MKTF-24, and MKTF-25.

## **6.6 CONSTITUENT LEVELS FOR EVAPORATION PONDS and EFFLUENTS**

There are eleven evaporation ponds located within the northwest section of the refinery. Evaporation pond 1 is more commonly known as Pond 1 and is considered separate from the remaining SMWU No. 2 Evaporation Ponds. Pond 1, which is out of service, is separated by a dike along the north side of aeration lagoon 1 (AL-1) and aeration lagoon 2 (AL-2), and was used as a holding pond for the aeration lagoons. Included in Figure 21 is a depiction of the flow path of wastewater from evaporation pond EP-2 through the last evaporation ponds. Also included in Figure 21 are the sampling locations for each of the evaporation ponds.

Evaporation ponds 2 through 6 are separated by dikes and are located west of AL-2. Evaporation pond 9 is to the south and is separated from EP-2 through EP-6 by a two-track road. Evaporation ponds EP-7, EP-8, EP-11, EP-12A, and EP-12B are also separated by dikes and are located on the northwest corner of the refinery. In addition to the evaporation ponds, there is one effluent point that is routinely monitored.

### **6.6.1 EVAPORATION PONDS EP-1 THROUGH EP-12B**

Samples have been collected annually from Pond 1 and EP-2 through EP-8 since 2007. In 2011, EP-9, EP-11, EP-12A, and EP-12B were added to the sample list, per the 2010 FWGWMP, and the sample frequency was increased to semi-annually for all of the ponds. Pond 1 is no longer in service.



In 2019, samples were collected from the evaporation ponds for the following analytes: VOCs, SVOCs, major anions/cations, biochemical oxygen demand (BOD), chemical oxygen demand (COD), e-coli bacteria, WQCC metals (total and dissolved). In addition, samples were collected from EP-3, EP-12A, and EP-12B during the fourth quarter of 2019 and analyzed for pesticides (Method 8081). Due to high water levels in EP-4, EP-5 and EP-6 the dikes between these ponds are submerged and no longer separate each pond. One sample was collected from the last pond in the series (EP-6). EP-11 was dry during the second semi-annual sampling event and was not sampled. EP-12A was dry during the first semi-annual sampling event and was not sampled.

EP-2 through EP-9, EP-11, EP-12A, and EP- 12B were sampled in 2019 on the following dates:

SAMPLE LOCATION	DATE	DATE
EP-2	4/30/19	11/21/19
EP-3	4/30/19	11/20/19
EP-4	4/30/19	Combined with EP-6
EP-5	4/30/19	Combined with EP-6
EP-6, 7, 8, 9	4/29/19	11/20/19
EP-11	4/29/19	NS-DRY
EP-12A	NS-DRY	11/21/19
EP-12B	4/29/19	11/21/19

- Benzene was detected above the applicable standard in evaporation pond EP-2 in the first semi-annual event 2019 (Table 8.15).
- Benzene was detected at concentrations below the applicable standard in EP-12B (Table 8.15).
- Toluene was detected at concentrations below the applicable standard in EP-2 (Table 8.15).
- Ethylbenzene, total xylenes, and MTBE were not detected in the evaporation ponds in 2019 (Table 8.15).
- Concentrations of fluoride, chloride, and sulfate exceeded applicable standards in each evaporation pond during 2019. Nitrite concentrations exceeded the applicable standard in EP-6, EP-7, EP-8, EP-9, EP-11, and EP-12B (Table 8.15).
- In 2019, BOD concentrations exceeded the general requirement of the 20 NMAC 6.2.3103 (<30 mg/L) in each of the evaporation ponds except for EP-7, EP-8, and EP-11 (Table 8.15.1).
- COD concentrations exceeded the general requirement (<125 mg/L) in each of the ponds (Table 8.15.1).
- E-Coli concentrations exceeded the applicable standard in EP-2, EP-3, EP-4, EP-12A, and EP-12B (Table 8.15.1).



- In 2019, the total metals listed below were detected in concentrations exceeding applicable standards (Table 8.15.2):
  - Arsenic – EP-5, EP-6, EP-7, EP-8, EP-9, EP-11, EP-12A, and EP-12B;
  - Iron – EP-2, EP-3, EP-12A, and EP-12B; and
  - Manganese – All evaporation ponds.
- In 2019, the dissolved metals listed below were detected in concentrations exceeding applicable standards (Table 8.15.3):
  - Arsenic – EP-5, EP-6, EP-7, EP-8, EP-9, EP-11, EP-12A, and EP-12B;
  - Iron – EP-2, EP-3, EP-12A, and EP-12B;
  - Manganese – All evaporation ponds; and
  - Selenium – EP-8.
- One volatile organic compound, bromomethane, was detected in EP-2 above the applicable standard in 2019 (Table 8.15.4).
- The following volatile organic compounds were detected in concentrations below applicable standards in 2019 (Table 8.15.4):
  - 1,2,4-Trimethylbenzene – EP-7 and EP-8;
  - Acetone – EP-3, EP-7, EP-8, EP-9, and EP-12A;
  - 2-Butanone – EP-2, EP-12A, and EP-12B;
  - Carbon Disulfide – EP-2, EP-3, EP-4, EP-6, EP-12A, and EP-12B; and
  - Chloromethane – EP-7, EP-8, EP-9, and EP-11.
- Three semi-volatile organic compounds exceeded applicable standards in the following evaporation ponds in 2019 (Table 8.15.5):
  - Bis(2-ethylhexyl) phthalate – EP-12B;
  - Phenol - EP-2, EP-3, EP-8, EP-12A, and EP-12B; and
  - 1,4-Dioxane – EP-2, EP-3, EP-12A, and EP-12B.
- The following semi-volatile organic compounds were detected in concentrations below applicable standards in 2019 (Table 8.15.5):
  - Benzoic Acid – EP-2, EP-4, EP-5, and EP-6;
  - Bis(2-ethylhexyl) phthalate – EP-3;
  - 2,4-Dimethylphenol – EP-2 and EP-3;
  - Diethylphthalate – EP-2, EP-3, EP-12A, and EP-12B;
  - 1,4-Dioxane – EP-6 and EP-9;
  - 1-Methylnaphthalene – EP-2;
  - 2-Methylnaphthalene – EP-2;
  - 2-Methylphenol – EP-2, EP-3, EP-12A, and EP-12B;
  - 3+4-Methylphenol – EP-2, EP-3, EP-12A, and EP-12B;
  - Naphthalene – EP-2;
  - 2-Nitrophenol – EP-12B; and
  - Phenol – EP-9.



- Samples collected from EP-3, EP-12A, and EP-12B were analyzed for pesticides (Method 8081) in the fourth quarter 2019. None of the pesticides were detected in the three pond samples (Table 8.15.6).

#### **6.6.2 INFLUENTS: AL-1, AL-2, and EP-1**

The start-up of the new WWTP occurred in May 2012. By the end of June 2012, all of the processed water going into AL-1 was re-routed to the WWTP, via Tank 35 and the NAPIS unit, with the exception of the Pilot lift station. Some gravitational flow continued from AL-1 to AL-2 and from AL-2 to Pond 1 (EP-1) through the second half of 2013. The aeration lagoons and pond 1 are no longer in service and no samples were collected in 2019.

#### **6.6.3 FLUENTS: AL-2 TO EP-1, PILOT, and NAPIS**

All effluents have been non-existent since June 2013 due to re-routing waters to the WWTP. The last effluent sample from AL-2 was in June 2013. The Pilot effluent was rerouted in June 2013 while the NAPIS unit was re-routed mid-June 2012. No effluent analyses are available for 2019.

#### **6.6.4 OUTFALL BW to EP-2**

BW is defined as reverse osmosis water coming from the boiler unit. The flow from the boiler unit previously discharged into EP-2 through a 4-inch PVC pipe. The reverse osmosis water no longer discharges to EP-2 and has been rerouted back into the units for reuse. No samples were collected in 2019.

#### **6.6.5 OUTFALL STP1 to EP-2 Inlet**

The EP-2 Inlet designation was changed to STP1 to EP-2 in the second half of 2012 due to the startup of the new WWTP and the new sanitary treatment pond (STP-1). STP-1 effluent now flows into the northeast corner of EP-2. Sampling of STP1 to EP-2 inlet was changed to quarterly beginning the second quarter of 2016 per NMED directive dated May 18, 2016, and sampled for the following analytes: VOCs, GRO, DRO, MRO, BOD, COD, and TDS. The outfall was sampled during the first, second, and fourth quarters of 2019.

- BTEX and MTBE (Table 8.16)
  - Benzene and toluene were detected during the first and fourth quarters of 2019;
  - Ethylbenzene was detected during the first quarter of 2019;
  - Total xylenes were detected during the first quarter of 2019; and
  - MTBE was not detected during the quarterly sampling in 2019.
- DRO/GRO/MRO (Table 8.16)
  - The DRO concentrations reported for the first and second quarters in 2019 exceeded applicable standards;
  - The GRO concentrations reported for the second and fourth quarters in 2019 exceeded applicable standards; and



- MRO was not detected during the quarterly sampling in 2019.
- The concentrations of total dissolved solids reported for all quarters in 2019 exceeded the applicable standard (Table 8.16).
- BOD and COD concentrations exceeded applicable standards in 2019 (Table 8.16.1).
- Four organic compounds were detected in 2019 (Table 8.16.2):
  - Acetone – First and second quarters;
  - Bromomethane – Fourth quarter;
  - 2-Butonane – First, second and fourth quarters; and
  - Carbon Disulfide – First quarter.
- In 2019, the total metals listed below were detected in concentrations exceeding applicable standards (Table 8.16.3):
  - Iron – Second and fourth quarters; and
  - Manganese – First and second quarters.
- In 2019, the dissolved metals listed below were detected in concentrations exceeding applicable standards (Table 8.16.4):
  - Iron – Second and fourth quarters; and
  - Manganese – Second quarter.



## SECTION 7 CONCLUSIONS AND RECOMMENDATIONS

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This section is an overview of the analytical water quality data collected to identify potential impacts to the groundwater and determine if further monitoring or site investigations are required.

### 7.1 GROUP A – GROUNDWATER MONITORING

Four wells (BW-1A, BW-1B, BW-3A, and BW-4A) continue to indicate no presence of water since their original installation. Groundwater was detected in BW-5A in 2019, however, the volume of groundwater was insufficient and the well was not sampled. The volume of groundwater recovered after purging BW-4B in the fourth quarter 2019 was insufficient and the well was not sampled.

- The boundary wells located in the northwest corner of the refinery along the west sides of EP-7, EP-8, and EP-11 have not shown any detection of BTEX or MTBE constituents during annual sampling events.
- Groundwater samples from the boundary wells (BW-5B and BW-5C) located west of EP-6 and EP-9 have reported low concentrations of MTBE in 2019. None of the concentrations exceeded applicable standards.
- Acetone was detected in low concentrations in samples collected at BW-4B, BW-5B, and BW-5C.
- Benzoic acid was detected in low concentrations in BW-4B and BW-5C.
- Bis(2-ethylhexyl) phthalate exceeded the applicable standard in samples collected at BW-5C in the third quarter 2019.
- 1,1-Dichloroethane was detected in low concentrations in the samples from BW-5C.
- Carbon disulfide and di-n-octyl phthalate were detected in low concentrations in the sample collected from BW-4B.
- Fluoride concentrations were detected above the applicable standard in BW-1C, BW-2B, and BW-2C, which may be naturally occurring in the groundwater, as similar concentrations are indicated in up-gradient well OW-11. Chloride concentrations were detected the above the applicable standard in BW-5B and BW-5C.

**RECOMMENDATION:** *Continue with current monitoring schedule since BTEX and MTBE concentrations remain below applicable standards.*

The MW (MW-1, MW-2, MW-4, and MW-5) series of wells are located around the RCRA LTU.

- No BTEX or MTBE were detected in any of the MW wells in 2019.
- Low concentrations of fluoride, chloride and sulfate were detected in the MW wells in 2019. DRO, GRO, and MRO were not detected in the MW wells in 2019.
- Metals (total and dissolved) were detected in concentrations below applicable standards in all of the MW wells in 2019.
- No organic compounds were detected in the MW wells in 2019.

**RECOMMENDATION:** *Continue with current monitoring schedule.*



The SMW (SMW-2, SMW-4) wells are located around the RCRA LTU and are screened in the Chinle/Alluvium Interface stratigraphic unit.

- Benzene was detected in a low concentration in SMW-2. SMW-2 continues to have a low concentration of MTBE below the applicable standard.
- In SMW-2, chloride and sulfate concentrations have exceeded applicable standards since 2011. In 2019, the nitrite concentration exceeded applicable standard. Low concentrations of fluoride, chloride, nitrate, and sulfate were detected in SMW-4. GRO has been detected in SMW-2 above the applicable standard since 2011.
- Manganese and uranium (total and dissolved) were detected in the samples from SMW-2 above applicable standards in 2019.
- Acetone was detected in a low concentration in the sample collected from SMW-4.

**RECOMMENDATION:** *Continue with current monitoring schedule. Separate investigations of the elevated chloride and sulfate concentrations are currently proposed for this area and includes the Investigation Work Plan for the SMW-2 Area and the OCD Landfarm/Pond 10 Soils Investigation Work Plan.*

## **7.2 GROUP B – GROUNDWATER MONITORING**

SPH has been detected in GWM-1 since 2015. There was an insufficient volume of water in GWM-2 during the fourth quarter of 2013 for sample collection, and the well has been dry from 2014 through 2019. GWM-3 has been dry from 2013 through 2019.

**RECOMMENDATION:** *Continue with current monitoring schedule. There have been no significant changes or discoveries of contaminants that warrant any changes in the analyses. Inspect GWM-1 on a more regular basis: gauging water/SPH level, purge SPH to check for recharge rate and monitor level of SPH after each purge.*

NAPIS-1, NAPIS-2, NAPIS-3, and KA-3 are monitored on a quarterly schedule. Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarter gauging and sampling. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event. SPH was detected in NAPIS-1 in the second, third, and fourth quarters.

- Benzene concentrations in NAPIS-2 exceeded the applicable standard in 2019. The benzene concentrations in KA-4 exceeded the applicable standard in all four quarters 2019.
- DRO was detected above the applicable standard in NAPIS-2 and KA-3.
- GRO was detected above the applicable standard in NAPIS-2, NAPIS-3, and KA-3.
- In NAPIS-2, barium, iron, and manganese were detected at concentration levels exceeding applicable standards in 2019. Manganese and iron were detected in KA-3 at concentration levels exceeding applicable standards in 2019.
- In NAPIS-2, 1-methynaphthalene and 2-methynaphthalene were detected at concentration levels exceeding applicable standards. In KA-3, 1-methynaphthalene was detected at a concentration exceeding the applicable standard.



**RECOMMENDATION:** *Continue with current monitoring schedule. Inspect NAPIS-1 on a more regular basis: gauging water/SPH level, purge SPH to check for recharge rate and monitor level of SPH after each purge. An investigation of the source of SPH that was identified in NAPIS-1 is on-going.*

The East LDU, West LDU and Oil Sump LDU are three leak detection units on the NAPIS Unit which are inspected for fluid level. The LDUs are sampled if fluid is present. Elevated H<sub>2</sub>S readings in the ambient air around the NAPIS prevented sampling personnel from entering the area to perform the first quarterly gauging and sampling. A subsequent sampling event was conducted at the beginning of April 2019 and is considered to be representative of the first quarter sampling event. The Oil Sump LDU was dry in all four quarters.

- East LDU samples were reported to contain benzene, DRO, and GRO concentrations exceeding applicable standards in all four quarters. Detectable concentrations of toluene, ethylbenzene, and total xylenes were reported in the samples. MTBE was not detected in the second and fourth quarters 2019.
- In the first and second quarters, the samples from West LDU reported benzene concentrations exceeding the applicable standard. West LDU samples were reported to contain DRO and GRO concentrations exceeding applicable standards in all four quarters. Detectable concentrations of ethylbenzene and total xylenes were reported in the samples. MTBE was detected in the first, third, and fourth quarters of 2019.
- In 2019, chromium, iron, and manganese were detected in concentrations exceeding applicable standards in the East LDU. The samples collected from the West LDU in 2019 had chromium, iron, and manganese concentrations exceeding applicable standards.
- Concentrations of the organic compounds 1,2,4-trimethylbenzene, naphthalene, and 1-methylnaphthalene exceeded applicable standards in the East LDU in 2019. Low concentrations of the organic compounds 1,2,4-trimethylbenzene, 1-methylnaphthalene, acetone, sec-butyl benzene, and trichloroethene were detected in the West LDU in 2019.

**RECOMMENDATION:** *Continue with current monitoring schedule.*

The installation on July 17, 2012 of monitoring well OAPIS-1 is from a site investigation conducted according to the Investigation Work Plan Solid Waste Management Unit (SMWU) No. 1 Aeration Basin and SMWU No. 14 Old API Separator.

- Benzene and MTBE have exceeded applicable standards since 2013. Detectable concentrations of toluene, ethylbenzene, and total xylenes were present at concentrations below applicable standards in 2019.
- The fluoride concentrations in the second and fourth quarters exceeded the applicable standard. Chloride, DRO, and GRO concentrations exceeded applicable standards in all four quarters of 2019.
- Arsenic, iron, and manganese concentrations exceeded applicable standards in OAPIS-1 in 2019.
- Low concentrations of organic compounds were detected in 2019 in OAPIS-1. The reported concentrations of 1-methylnaphthalene and bis(2-ethylhexyl) phthalate exceeded applicable standards.

**RECOMMENDATION:** *Continue with current monitoring schedule.*

Monitoring well STP1-NW is located on the west end of the north bay (STP-1) and STP1-SW is located on the southwest



corner of the south bay of STP-1. Observation wells OW-59 and OW-60 were installed in June 2017 and are located to the northwest. The installation of these wells is in response to elevated chlorides detected downgradient in SWM-2. OW-62 was installed in March 2018 during the French Drain release investigation. OW-62 is located to the southeast of STP-1.

- STP1-SW was not gauged in 2019. Access to the STP1-SW was not permitted due to high concentrations of H<sub>2</sub>S in the atmosphere.
- BTEX and MTBE was not detected in STP1-NW in 2019. BTEX was not detected in OW-59 in 2019. A low benzene concentration was detected in OW-60 in the third quarter 2019. Low concentrations of MTBE were detected in OW-59 and OW-60 in 2019.
- Chloride and nitrate concentrations exceeded applicable standards in STP1-NW. Chloride and sulfate concentrations exceeded applicable standards in OW-59. Chloride, nitrite, nitrate, and sulfate concentrations exceeded applicable standards in OW-60.
- DRO, GRO, and MRO were not detected in STP1-NW and OW-60 in 2019. DRO and GRO were detected above applicable standards in all four quarters of 2019 in OW-59. MRO was not detected in OW-59 in 2019.
- The chromium concentration exceeded the applicable standard in OW-60 in the four quarters of 2019. Iron concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60 in 2019. Manganese concentrations exceeded the applicable standard in OW-59 and OW-60 in 2019. Uranium concentrations exceeded the applicable standard in STP1-NW, OW-59, and OW-60.
- Low concentrations of acetone, bis (2-ethylhexyl) phthalate, and 1,2,4-trimethylbenzene were detected during the monitoring events in 2019.

**RECOMMENDATION:** *Continue with current monitoring schedule.*

### 7.3 GROUP C – GROUNDWATER MONITORING

Groundwater monitoring activities from the Group C wells (northeast side of the Refinery) have shown that an MTBE and hydrocarbon plume exist in the northeastern portion of the main tank farm and extends downgradient to the north towards OW-50 and OW-52 and to the west near OW-54.

- A low concentration of benzene was reported in the second quarter 2019 for OW-13. Low concentrations of MTBE continue to be detected below the applicable standard.
- Benzene and MTBE concentrations for OW-14 were above applicable standards for all four quarters 2019. In the second quarter 2019, the ethylbenzene concentration slightly exceeded the applicable standard in OW-14. There were detectable concentrations of toluene and total xylenes in 2019.
- A low concentration of ethylbenzene was reported for OW-29 in the first quarter. The MTBE concentrations were above the applicable standard for all four quarters 2019.
- No detectable concentrations of BTEX were reported in 2019 for OW-30. MTBE concentrations were reported above the applicable standard in all four quarters of 2019.
- Low concentrations of benzene were detected in OW-50 and OW-52 in the second quarter 2019. Toluene, ethylbenzene, total xylenes, DRO, GRO, and MRO have not been detected in either OW-50 or OW-52 since 2010. Low concentrations of MTBE have been detected in both wells in 2016, 2017, 2018, and 2019.
- In OW-54 and OW-55, benzene and MTBE concentrations exceeded applicable standards during all four quarters. Toluene, ethylbenzene, and total xylenes were detected at concentrations below applicable standards. In OW-56, there were no detectable concentrations of benzene, toluene, and MTBE that exceeded applicable standards in 2019.



- BTEX and MTBE were detected in the OW-57, OW-58, and OW58A during all quarters of 2019. Benzene concentrations exceeded the applicable standard in OW-57, OW-58, and OW-58A. Ethylbenzene concentrations exceeded the applicable standard in all four quarters in OW-58. The concentration of total xylenes in OW-58A exceeded the applicable standard. MTBE concentrations exceeded the applicable standards in OW-57, OW-58, and OW-58A.
- BTEX and MTBE were detected in OW-63 in 2019. BTEX was detected in OW-64 in 2019. MTBE was not detected in OW-64 in 2019. Benzene concentrations exceeded the applicable standard in OW-63 and OW-64 in 2019. Ethylbenzene concentrations exceeded the applicable standard in all four quarters in OW-63.

**RECOMMENDATION:** *Continue with current monitoring schedule.*

Recovery pumps were installed in RW-5 and RW-6 in 2018. In 2019, recovery pumps were installed in RW-1 and RW-

2. The interim groundwater recovery system was approved in 2019 and limited fluid recovery was conducted.

**RECOMMENDATION:** *Continue fluid recovery in RW-1, RW-2, RW-5, and RW-6. An investigation into the potential source of SPH detected in RW-5 and RW-6 is on-going.*

#### **7.4 GROUP D – GROUNDWATER MONITORING**

PW-2, PW-3, and PW-4 are all process/production wells under artesian conditions and are set at around 1000 feet. The process wells PW-3 and PW-4 were sampled quarterly in 2019. PW-2 was not sampled.

- No BTEX or MTBE were detected in PW-3 or PW-4 in 2019.
- Sulfate was detected above the applicable standard in PW-3 in 2019.
- Low concentrations of acetone, benzoic acid, bis(2-ethylhexyl) phthalate, and 1,2,4-trimethylbenzene were detected in the wells in 2019 at levels below applicable standards.

**RECOMMENDATION:** *Continue with current monitoring schedule.*

OW-1 is a flowing artesian boundary well located on the western edge of the refinery property. Historically, OW-1 is a relatively clean well; however, very low concentrations of benzene, toluene, total xylenes, and MTBE were detected for the first time in the fourth quarter of 2015. OW-10 is completed in the Sonsela Aquifer and is located east of EP-9.

- BTEX was not detected in OW-1 and OW-10 in 2019. MTBE was detected in low concentrations below the applicable standard in both wells in 2019.
- Five organic compounds were detected at concentrations below applicable standards in 2019: acetone, benzoic acid, 1,1-dichloroethane, 1,1-dichloroethene, and 1,2-dichloroethane (EDC).

**RECOMMENDATION:** *Continue with current monitoring schedule. No changes required.*

Observation well OW-11 is located within the refinery property (southeast) on the west side of the main entrance and OW-12 is located within the surplus yard located west and slightly north of the primary tank farm. OW-11 and OW-12 are screened in the Sonsela stratigraphic unit.



- Benzene and ethylbenzene were detected in low concentrations in OW-11 and OW-12 in 2019. MTBE was not detected in OW-11 and OW-12 in 2019.
- Low concentrations of 1,2,4-trimethylbenzene and 1,2-dichloroethane were detected in OW-11. A low concentration of acetone was detected in OW-12.
- Fluoride and sulfate concentrations were above applicable standards in OW-11, which is an up-gradient background monitoring well.

**RECOMMENDATION:** *Continue with current sampling schedule.*

## **7.5 GROUP E – GROUNDWATER MONITORING**

Prior to 2019, 44 permanent monitoring wells (MKTF-1 through MKTF-44) were installed to aid in delineating the extent of a hydrocarbon seep discovered in 2013, directly west of crude tanks T-101 and T102. During the investigation, a pre-existing well (labeled as MKTF-45) was found directly west of the truck-loading rack. During the fourth quarter of 2019 five new MKTF wells were installed to provide additional groundwater monitoring up-gradient of existing monitoring wells. The MKTF wells are sampled quarterly.

- BTEX, MTBE, DRO, GRO, total and dissolved metals, VOCs, and SVOCs have been detected in the wells above the applicable standards.
- The following wells contained SPH during 2019 monitoring events:
  - MKTF-1, MKTF-03, MKTF-05, MKTF-06, MKTF-07, MKTF-08, MKTF-12, MKTF-14, MKTF-26, and MKTF-45 – All four quarters;
  - MKTF-15 – First, third and fourth quarters;
  - MKTF-18 – Third quarter;
  - MKTF-23 – Second and third quarter; and
  - MKTF-37 – Second, third, and fourth quarter.

**RECOMMENDATIONS:** *Continue with the current quarterly sampling schedule. MKTF wells identified as having an SPH level, begin a routine hydrocarbon recovery effort to evaluate recharge rate and record volumes of water and SPH recovered. Continue with on-going recovery at the existing sumps and retention ditch at seep site.*

## **7.6 ADDITIONAL MONITORING**

- Continue with the sampling requirements of the most currently approved Facility-Wide Groundwater Monitoring Work Plan.
- Submit the Annual Groundwater Monitoring Report on or before September 1st of each year.
- Conduct site assessments as required when spills/leaks are discovered.



## SECTION 8 DATA TABLES

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8.1	BW-1A/1B/1C, BW-2A/2B/2C, BW-3A/3B/3C, BW-4A/4B, BW-5A/5B/5C
8.2	MW-1, MW-2, MW-4, MW-5
8.3	SMW-2, SMW-4
8.4	OW-11, OW-12
8.5	OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-58A, OW-63, OW-64
8.6	PW-2, PW-3, PW-4
8.7	GWM-1, GWM-2, GWM-3
8.8	NAPIS-1, NAPIS-2, NAPIS-3, KA-3
8.9	OAPIS-1
8.10	LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)
8.11	RW-1, RW-2, RW-5, RW-6
8.12	OW-1, OW-10
8.13	OW-13, OW-14, OW-29, OW-30
8.14	STP1-NW, STP1-SW, OW-59, OW-60, OW-62
8.15	EVAPORATION PONDS EP-1 – EP-12B
8.16	STP-1 to EP-2
8.17	MKTF-1 thru MKTF-50



**8.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.00046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
BW-1C	08/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2A	08/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2B	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2C	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/18/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001



**8.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.00046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
BW-3B	08/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3C	08/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/18/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-4B <sup>1</sup>	08/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-5B	10/16/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	05/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0095
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0011
	11/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.005
	09/10/18	8260B	<0.001	0.00024	<0.001	<0.0015	0.0052
	05/14/18	8260B	<0.001	0.00023	<0.001	<0.0015	0.0028
	02/26/18	8260B	<0.001	0.00076	<0.001	<0.0015	0.0018
	12/08/17	8260B	<0.001	0.0018	<0.001	<0.0015	0.00064
BW-5C	10/16/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.024
	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.029
	05/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.025
	11/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
	09/10/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.03
	05/14/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.032
	02/26/18	8260B	<0.001	0.000078	<0.001	<0.0015	0.036
	12/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.039



# 8.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

## BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.00046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

### NOTES

1) Did not sample BW-4B in the 4th Qtr 2019 - not enough water for sampling. Recharge slow.



8.1.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	NE	1	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	NE	1	10	NE	NE	NE	NE	NE
NMED TAP WATER (MAR 2019)			1.18	NE	NE	1.97	31.59	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2018)			0.8	NE	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD										
BW-1C	08/14/19	300.0/8015D	2.2	33	0.15	0.066	<0.5	<2.5	250	<1.0	<0.05	<5.0
	09/12/18	300.0/8015D	2.4	33	0.16	<1.0	<1.0	<2.5	230	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	2.1	32	0.15	<0.5	<0.5	<2.5	230	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	2.4	32	0.12	<1.0	<1.0	0.36	240	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	2.5	33	<0.1	<0.1	<0.1	<0.5	250	<1.0	<0.05	<5.0
	09/10/14	300.0	2.6	33	0.12	<1.0	<1.0	<0.5	260			
	09/09/13	300.0	2.1	34	<0.1	14	14	<0.5	260			
	08/24/12	300.0	2.3	34	<0.1	<1.0	<1.0	<0.5	260			
	10/28/11	300.0	2.6	33	<0.1	1.7	1.7	<0.5	260			
	07/20/10	300.0	2.7	37	0.11	<1.0	<1.0	<0.5	290			
BW-2A	08/14/19	300.0/8015D	1.1	38	0.46	<0.5	<0.5	<2.5	6.8	<1.0	<0.05	<5.0
	09/12/18	300.0/8015D	1	38	0.43	<1.0	<1.0	0.71	7.3	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	0.99	36	0.44	<0.5	<0.5	<2.5	6.4	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	0.98	36	0.42	<1.0	<1.0	0.94	7.3	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	1.1	36	0.2	<1.0	<1.0	0.72	7.3	<1.0	<0.05	<5.0
	09/09/14	300.0	1.1	37	0.4	<1.0	<1.0	0.57	7.1			
	09/09/13	300.0	0.9	37	0.39	3.5	3.5	<0.5	7.2			
	08/24/12	300.0	0.95	38	0.54	<1.0	<1.0	<0.5	6.8			
	10/28/11	300.0	1.1	37	0.36	<1.0	<1.0	0.58	7.0			
	07/20/10	300.0	1.2	42	0.43	<1.0	<1.0	0.68	7.1			
BW-2B	08/14/19	300.0/8015D	1.5	31	0.71	0.068	0.065	<2.5	200	<1.0	<0.05	<5.0
	09/12/18	300.0/8015D	1.7	31	0.74	<0.5	<0.5	<2.5	190	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	1.5	29	0.73	<0.5	<0.5	<2.5	180	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	1.5	30	0.7	<1.0	<1.0	<0.5	170	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	1.8	29	0.14	1.5	1.5	<0.5	160	<1.0	<0.05	<5.0
	09/09/14	300.0	1.6	29	0.43	<1.0	<1.0	<0.5	160			
	09/09/13	300.0	1.7	28	0.14	33	33	<0.5	150			
	08/24/12	300.0	1.3	27	0.22	1.4	1.4	<0.5	150			
	10/28/11	300.0	1.6	27	0.75	<1.0	<1.0	<0.5	140			
	07/20/10	300.0	1.8	32	0.82	<1.0	<1.0	<0.5	160			
BW-2C	08/14/19	300.0/8015D	1.8	46	<0.50	<0.5	<0.5	<2.5	260	<1.0	<0.05	<5.0
	09/18/18	300.0/8015D	1.7	48	0.14	0.4	0.4	0.91	270	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	1.8	44	0.13	0.11	<0.5	<2.5	260	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	1.9	42	0.098	<1.0	<1.0	<0.5	270	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	1.9	42	0.11	<1.0	<1.0	<0.5	270	<1.0	<0.05	<5.0
	09/10/14	300.0	2.0	42	0.11	<1.0	<1.0	<0.5	260			
	09/09/13	300.0	1.6	43	<0.1	37	37	<0.5	270			
	08/24/12	300.0	2.0	41	<0.5	<1.0	<1.0	<2.5	270			
	10/28/11	300.0	2.0	43	<0.1	<1.0	<1.0	<0.5	280			
	07/20/10	300.0	2.1	62	0.12	<1.0	<1.0	<0.5	310			
BW-3B	08/14/19	300.0/8015D	1.4	31	0.41	<0.5	<0.5	<2.5	48	<1.0	<0.05	<5.0
	09/12/18	300.0/8015D	1.3	31	0.45	<0.5	0.063	1.2	44	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	1.4	29	0.44	<0.5	<0.5	<2.5	38	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	1.2	30	0.41	<1.0	<1.0	1.3	50	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	1.3	31	0.18	<1.0	<1.0	1.1	46	<1.0	<0.05	<5.0
	09/10/14	300.0	1.6	35	0.44	<1.0	<1.0	1.0	54			
	09/09/13	300.0	1.1	30	0.36	11	11	0.87	45			
	08/23/12	300.0	1.2	33	0.39	<1.0	<1.0	0.82	46			
	10/28/11	300.0	1.3	28	0.31	<1.0	<1.0	0.84	48			
	07/20/10	300.0	1.4	33	0.42	<0.01	<0.01	1.1	54			



**8.1.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C**  
**General Chemistry and DRO/GRO/MRO Analytical Result Summary**

STANDARDS			PARAMETERS									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	NE	1	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	NE	1	10	NE	NE	NE	NE	NE
NMED TAP WATER (MAR 2019)			1.18	NE	NE	1.97	31.59	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2018)			0.8	NE	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD										
BW-3C	08/14/19	300.0/8015D	1.5	36	<0.5	<0.5	<0.5	<2.5	330	<1.0	<0.05	<5.0
	09/18/18	300.0/8015D	1.3	38	0.18	<0.5	0.061	0.85	320	<1.0	<0.05	<5.0
	09/13/17	300.0/8015D	1.2	36	0.42	<1.0	<1.0	<2.5	320	<1.0	<0.05	<5.0
	09/08/16	300.0/8015D	1.3	35	0.12	<1.0	<1.0	<0.5	330	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	1.3	36	0.12	<1.0	<1.0	<0.5	340	<1.0	<0.05	<5.0
	09/10/14	300.0	1.3	35	0.14	<1.0	<1.0	<0.5	300			
	09/09/13	300.0	1.0	35	<0.1	<1.0	<1.0	<0.5	320			
	08/23/12	300.0	1.1	38	0.11	<1.0	<1.0	<0.5	310			
	10/28/11	300.0	1.4	35	<0.1	<1.0	<1.0	<0.5	320			
	07/20/10	300.0	1.4	41	0.12	<0.1	0.12	<0.5	380			
BW-4B <sup>1</sup>	08/23/19	300.0/8015D	0.69	73	<0.5	<0.5	<0.5	<2.5	230	<1.0	<0.05	<5.0
	05/22/19	300.0/8015D	0.97	81	<0.5	<0.5	<0.5	<2.5	220	<1.0	<0.05	<5.0
	03/27/19	300.0/8015D	1	84	0.4	<0.5	<0.5	<2.5	220	<1.0	<0.05	<5.0
	11/13/18	300.0/8015D	1.1	89	0.47	<0.5	<0.5	<2.5	250	<1.0	<0.05	<5.0
BW-5B	10/16/19	300.0/8015D	0.17	460	0.57	0.17	0.17	<2.5	88	<1.0	<0.05	<5.0
	08/15/19	300.0/8015D	0.17	490	0.54	<0.5	0.11	<2.5	92	<1.0	<0.05	<5.0
	05/22/19	300.0/8015D	<0.5	480	0.5	<0.5	0.17	<2.5	91	<1.0	<0.05	<5.0
	03/27/19	300.0/8015D	<0.5	340	0.43	<0.5	0.16	<2.5	96	<1.0	<0.05	<5.0
	11/13/18	300.0/8015D	<0.5	390	0.61	<0.5	<0.5	<2.5	94	<1.0	<0.05	<5.0
	09/10/18	300.0/8015D	<0.5	330	0.45	<0.5	0.19	1	91	<1.0	<0.05	<5.0
	05/14/18	300.0/8015D	0.088	220	0.39	<1.0	<1.0	<0.5	88	<1.0	<0.05	<5.0
	02/26/18	300.0/8015D	<0.5	160	0.39	<0.5	0.16	<2.5	98	<1.0	<0.05	<5.0
	12/08/17	300.0/8015D	0.27	110	0.47	0.15	0.15	<2.5	110	<1.0	0.014	<5.0
BW-5C	10/16/19	300.0/8015D	<0.5	1400	1.5	<1.0	<1.0	<2.5	220	<1.0	<0.05	<5.0
	08/15/19	300.0/8015D	<0.5	1400	0.99	<0.5	<0.5	<2.5	220	<1.0	<0.05	<5.0
	05/21/19	300.0/8015D	<0.5	1400	1	<0.5	<0.5	<2.5	240	<1.0	0.027	<5.0
	03/27/19	300.0/8015D	<0.5	1400	1	<0.5	<0.5	<2.5	230	<1.0	<0.05	<5.0
	11/13/18	300.0/8015D	<0.5	1300	1.5	<0.5	<0.5	<2.5	210	<1.0	<0.05	<5.0
	09/10/18	300.0/8015D	<0.5	1300	1	<0.5	0.08	1.3	220	<1.0	0.024	<5.0
	05/14/18	300.0/8015D	<0.1	1300	0.48	<1.0	<1.0	<0.5	190	<1.0	<0.05	<5.0
	02/26/18	300.0/8015D	<0.5	1300	1.1	0.32	<0.5	1.4	210	<1.0	0.034	<5.0
	12/08/17	300.0/8015D	<0.5	1400	1.2	0.23	0.23	<2.5	210	<1.0	0.035	<5.0

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

**NOTES**

8015D analysis added to plan in 2015 per NMED Comment 7(b), Approval with Modification, FWGWMWP - 2012 Updates; 2013 Updates; 2014 Updates for 2015.

1) Did not sample BW-4B in the 4th Qtr 2019 - not enough water for sampling. Recharge slow.



8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10.0
	40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
	NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
	EPA RSL for Tap Water (NOV 2019)		0.00052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD												
BW-1C	08/15/19	200.7/200.8	<0.001	0.019	<0.002	0.0026	<0.006	0.054	<0.0005	0.01	<0.001	<0.0002	0.0094	<0.01
	09/12/18	200.7/200.8	<0.001	0.037	<0.002	0.0041	<0.006	0.29	0.00077	0.038	<0.001	<0.0002	0.0081	<0.01
	09/13/17	200.7/200.8	0.00038	0.02	<0.002	0.0045	0.0027	0.13	<0.0005	0.015	<0.001	<0.0002	0.0099	<0.01
	09/08/16	200.7/200.8	0.00044	0.022	<0.002	0.0036	<0.006	0.089	<0.0005	0.014	0.00055	0.00011	0.008	<0.01
	08/12/15	200.7/200.8	<0.001	0.044	<0.002	0.0073	<0.006	0.36	0.00051	0.049	<0.001	<0.0002	0.01	<0.01
	09/10/14	200.7/200.8	<0.001	0.026	<0.002	<0.006	<0.006	0.43	<0.001	0.028	<0.001	<0.0002	0.0099	<0.01
	09/09/13	200.7/200.8	<0.001	0.027	<0.002	0.018	<0.006	0.4	<0.001	0.025	<0.001	<0.0002	0.006	<0.01
	08/24/12	200.7/200.8	<0.0025	0.028	<0.002	0.22	0.0062	0.49	<0.005	0.068	<0.0025	<0.0002	0.0052	0.011
	10/28/11	200.7/200.8	<0.0025	0.018	<0.002	0.031	<0.006	0.1	<0.005	0.0077	<0.0025	<0.0002	0.0043	<0.01
	07/20/10	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.05	<0.005	0.0083	<0.05	<0.0002	0.003	<0.02
BW-2A	08/14/19	200.7/200.8	0.0085	0.15	<0.002	0.0036	0.0033	0.49	0.00012	0.15	<0.001	<0.0002	<0.0005	<0.01
	09/12/18	200.7/200.8	0.0078	0.13	<0.002	0.0036	0.0033	0.43	<0.0005	0.14	<0.001	<0.0002	<0.0005	<0.01
	09/13/17	200.7/200.8	0.0075	0.16	<0.002	0.0036	0.0033	1.2	0.00068	0.17	0.0019	<0.0002	<0.0005	<0.01
	09/08/16	200.7/200.8	0.0072	0.15	<0.002	<0.006	<0.006	0.4	<0.0005	0.14	0.0014	0.000053	<0.0005	<0.01
	08/12/15	200.7/200.8	0.0073	0.16	<0.002	<0.006	<0.006	0.5	<0.0005	0.14	<0.001	<0.0002	<0.0005	<0.01
	09/09/14	200.7/200.8	0.0085	0.13	<0.002	<0.006	<0.006	0.34	<0.001	0.12	0.0023	<0.0002	<0.001	<0.01
	09/09/13	200.7/200.8	0.0076	0.15	<0.002	<0.006	<0.006	0.47	<0.001	0.14	<0.001	<0.0002	<0.001	<0.01
	08/24/12	200.7/200.8	0.0072	0.15	<0.002	<0.006	<0.006	0.49	<0.005	0.16	<0.0025	<0.0002	<0.0025	<0.01
	10/28/11	200.7/200.8	0.0072	0.16	<0.002	<0.006	<0.006	0.87	<0.005	0.19	<0.0025	<0.0002	<0.0025	<0.01
	07/20/10	6010B	<0.02	0.13	<0.002	<0.006	<0.006	<0.05	<0.005	0.12	<0.05	<0.0002	<0.001	<0.02



## 8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

## Total Metals Analytical Result Summary

STANDARDS		PARAMETERS											
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10.0
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.00052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD											
BW-2B	08/14/19	0.00098	0.057	<0.002	0.0027	<0.006	1.6	0.00092	0.18	<0.001	<0.0002	0.012	0.011
	09/12/18	0.00077	0.037	<0.002	0.0078	0.0042	0.24	<0.0005	0.15	<0.001	<0.0002	0.01	<0.01
	09/13/17	0.0021	0.087	<0.002	0.0078	0.0042	3.2	0.002	0.22	0.0029	<0.0002	0.014	0.007
	09/08/16	0.0015	0.049	<0.002	<0.006	<0.006	0.65	0.00039	0.15	0.0036	<0.0002	0.012	0.012
	08/12/15	0.0013	0.1	<0.002	<0.006	<0.006	2.5	0.0012	0.21	0.0019	<0.0002	0.013	0.012
	09/09/14	0.0022	0.04	<0.002	<0.006	<0.006	0.21	<0.001	0.14	0.0048	<0.0002	0.015	<0.01
	09/09/13	0.0011	0.052	<0.002	<0.006	<0.006	0.38	<0.001	0.16	0.0013	<0.0002	0.014	<0.01
	08/24/12	<0.0025	0.044	<0.002	<0.006	<0.006	0.12	<0.005	0.16	<0.0025	<0.0002	0.013	<0.01
	10/28/11	<0.0025	0.056	<0.002	<0.006	<0.006	0.57	<0.005	0.26	<0.0025	<0.0002	0.015	<0.01
	07/20/10	<0.02	0.047	<0.002	<0.006	<0.006	0.16	<0.005	0.22	<0.05	<0.0002	0.012	<0.02
BW-2C	08/14/19	0.0023	0.086	<0.002	0.018	<0.006	3.9	0.0044	0.096	0.00077	<0.0002	0.0072	0.024
	09/18/18	<0.005	0.05	<0.002	0.006	<0.006	2	0.0024	0.059	<0.005	0.000045	0.0055	0.015
	09/13/17	0.00076	0.025	<0.002	0.009	0.0035	0.41	0.0005	0.039	0.00092	<0.0002	0.0047	0.0051
	09/08/16	0.00057	0.02	<0.002	<0.006	<0.006	0.2	0.00017	0.013	0.00025	0.000058	0.0047	<0.01
	08/12/15	<0.001	0.024	<0.002	<0.006	<0.006	0.51	<0.0005	0.014	<0.001	<0.0002	0.0056	<0.01
	09/10/14	0.0011	0.055	<0.002	0.01	<0.006	2.5	0.0017	0.067	<0.001	<0.0002	0.0056	0.014
	09/09/13	<0.001	0.027	<0.002	<0.006	<0.006	0.39	<0.001	0.025	<0.001	<0.0002	0.0056	<0.01
	08/24/12	<0.0025	0.086	0.013	0.013	<0.006	2.9	<0.005	0.12	<0.0025	<0.0002	0.0047	0.025
	10/28/11	<0.0025	0.021	<0.002	0.0085	<0.006	0.28	<0.005	0.023	<0.0025	<0.0002	0.0043	<0.01
	07/20/10	<0.02	0.024	<0.002	0.017	<0.006	0.74	<0.005	0.033	<0.05	<0.0002	0.006	<0.02



## Total Metals Analytical Result Summary

## PARAMETERS



8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Total Metals Analytical Result Summary

STANDARDS		PARAMETERS											
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10.0
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.00052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD											
BW-4B <sup>1</sup>	08/23/19	0.01	0.14	<0.002	0.021	0.0091	4.8	0.0028	0.092	<0.001	0.0001	0.07	0.016
	05/22/19	0.017	1.3	<0.002	0.09	0.036	30	0.033	1.1	0.014	<0.0002	0.071	0.086
	03/27/19	0.012	0.16	<0.002	0.021	0.0091	5.7	0.0035	0.13	0.00091	0.00014	0.059	0.018
	11/13/18	0.013	0.28	<0.002	0.038	0.017	10	0.0069	0.21	<0.001	NA	0.051	0.038
	200.7/200.8												
BW-5B	10/16/19	0.0021	0.14	<0.002	0.0028	<0.006	0.12	<0.0005	0.0037	0.0019	<0.0002	0.032	<0.01
	08/15/19	0.0015	0.18	<0.002	0.0027	<0.006	1.3	0.00051	0.028	0.0014	0.00012	0.029	0.006
	05/22/19	0.0012	0.16	<0.002	<0.006	<0.006	0.55	0.0003	0.022	0.0017	<0.0002	0.029	<0.01
	03/27/19	0.0027	0.092	<0.002	0.0019	<0.006	0.11	0.000071	0.0036	0.0017	0.00013	0.039	<0.01
	11/13/18	0.0017	0.14	<0.002	0.0034	<0.006	0.7	0.00036	0.023	0.0017	NA	0.027	0.0037
	09/10/18	0.0014	0.12	<0.002	0.0033	<0.006	1.7	0.00052	0.034	0.0014	0.000087	0.031	0.005
	05/14/18	0.0022	0.13	<0.002	0.0072	<0.006	2.4	0.00077	0.051	0.0021	0.000048	0.036	0.0088
	02/26/18	0.0027	0.11	<0.002	0.0047	<0.006	1.8	<0.0025	0.044	<0.005	0.000053	0.037	0.01
	200.7/200.8												
	12/08/17	0.003	0.085	<0.002	0.012	<0.006	1.7	0.00097	0.042	<0.005	0.00015	0.042	0.0086
BW-5C	10/16/19	<0.0005	0.13	<0.002	<0.006	<0.006	0.99	0.00038	0.04	<0.005	0.000066	0.04	<0.01
	08/15/19	0.00046	0.088	<0.002	0.0046	<0.006	0.53	0.000068	0.024	0.00091	0.0001	0.043	<0.01
	05/21/19	0.00058	0.12	<0.002	0.0017	<0.006	1.1	0.0009	0.046	0.0013	<0.0002	0.043	<0.01
	03/27/19	0.00038	0.12	<0.002	0.0016	<0.006	1.7	0.00061	0.047	0.00085	0.00026	0.044	<0.01
	11/13/18	0.0014	0.19	<0.002	0.008	<0.006	3.4	0.0027	0.093	0.001	0.000081	0.042	0.009
	09/10/18	<0.005	0.094	<0.002	<0.006	<0.006	0.87	<0.0025	0.037	<0.005	0.00019	0.041	<0.01
	05/14/18	<0.005	0.13	<0.0021	0.0034	<0.006	1.5	<0.0025	0.048	<0.005	0.00016	0.043	0.0072
	02/26/18	0.00094	0.11	<0.002	<0.006	<0.006	0.4	<0.0005	0.038	0.0027	0.00012	0.042	<0.01
	200.7/200.8												
	12/08/17	0.0022	0.12	<0.002	<0.006	<0.006	0.54	<0.0025	0.058	<0.005	0.000081	0.038	<0.01



8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Total Metals Analytical Result Summary

STANDARDS		PARAMETERS											
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10.0
	40 CFR 141.62 MCL	0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
	NMED TAP WATER (Rev 2. JUN 2019)	0.000855	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
	EPA RSL for Tap Water (NOV 2019)	0.00052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD											

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Did not sample BW-4B in the 4th Qtr 2019 - not enough water for sampling. Recharge slow.



8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)			0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
BW-1C	08/15/19	200.7/200.8	0.00015	0.017	<0.002	<0.006	<0.006	0.022	<0.0005	0.0093	<0.001	0.0078	0.011
	09/12/18	200.7/200.8	<0.001	0.017	<0.002	0.0013	<0.006	0.024	<0.0005	0.0093	<0.001	0.0081	0.0058
	09/13/17	200.7/200.8	0.00053	0.017	<0.002	0.0014	<0.006	0.031	<0.0005	0.0088	<0.005	0.0092	0.01
	09/08/16	200.7/200.8	0.00032	0.017	<0.002	<0.006	<0.006	0.029	<0.0005	0.0077	0.00063	0.0089	<0.01
	08/12/15	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	0.04	<0.0025	0.011	<0.005	0.0087	<0.01
	09/09/14	200.7/200.8	<0.001	0.02	<0.002	<0.006	<0.006	<0.02	<0.005	0.011	<0.001	0.0089	<0.01
	09/09/13	200.7/200.8	<0.001	0.017	<0.002	<0.006	<0.006	<0.02	<0.001	<0.002	<0.001	0.0057	<0.01
	08/24/12	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	0.0029	<0.001	0.005	<0.01
	10/28/11	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	0.0043	0.026
	07/20/10	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.006	<0.02	<0.005	0.0094	<0.05	<0.05
BW-2A	08/14/19	200.7/200.8	0.0083	0.14	<0.002	<0.006	<0.006	0.32	<0.0005	0.13	<0.001	0.000079	0.0094
	09/12/18	200.7/200.8	0.0076	0.15	<0.002	<0.006	<0.006	0.38	<0.0005	0.14	<0.001	<0.0005	0.008
	09/13/17	200.7/200.8	0.0079	0.13	<0.002	<0.006	<0.006	0.11	<0.0005	0.13	0.0031	<0.0005	0.0088
	09/08/16	200.7/200.8	0.0079	0.15	<0.002	<0.006	<0.006	0.37	<0.0005	0.14	0.0020	0.000076	<0.01
	08/12/15	200.7/200.8	0.0079	0.15	<0.002	<0.006	<0.006	0.37	<0.0025	0.14	<0.005	<0.0025	0.016
	09/09/14	200.7/200.8	0.0083	0.16	<0.002	<0.006	<0.006	0.38	<0.005	0.13	0.0027	<0.005	<0.01
	09/09/13	200.7/200.8	0.0081	0.15	<0.002	<0.006	<0.006	0.39	<0.001	0.15	0.0015	<0.001	<0.01
	08/24/12	200.7/200.8	0.0072	0.14	<0.002	<0.006	<0.006	0.26	<0.005	0.13	0.001	<0.001	<0.01
	10/28/11	200.7/200.8	0.0065	0.13	<0.002	<0.006	<0.006	0.28	<0.005	0.12	<0.001	<0.001	0.021
	07/20/10	6010B	<0.02	0.14	<0.002	<0.006	<0.006	0.29	<0.005	0.14	<0.05	<0.001	<0.05



### 8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

#### Dissolved Metals Analytical Result Summary

PARAMETERS											
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Zinc (mg/L)
40 CFR 141.62 MCL		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	10.0
NMED TAP WATER (Rev 2. JUN 2019)		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE
EPA RSL for Tap Water (NOV 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	6
WELL ID	DATE SAMPLED	METHOD									
BW-2B	08/14/19	200.7/200.8									
	09/12/18	200.7/200.8									
	09/13/17	200.7/200.8									
	09/08/16	200.7/200.8									
	08/12/15	200.7/200.8									
	09/09/14	200.7/200.8									
	09/09/13	200.7/200.8									
	08/24/12	200.7/200.8									
	10/28/11	200.7/200.8									
	07/20/10	6010B									
BW-2C	08/14/19	200.7/200.8									
	09/18/18	200.7/200.8									
	09/13/17	200.7/200.8									
	09/08/16	200.7/200.8									
	08/12/15	200.7/200.8									
	09/10/14	200.7/200.8									
	09/09/13	200.7/200.8									
	08/24/12	200.7/200.8									
	10/28/11	200.7/200.8									
	07/20/10	6010B									
BW-2B	08/14/19	0.00074	0.039	<0.002	<0.006	<0.006	0.13	<0.0005	0.15	<0.001	0.01
	09/12/18	0.00073	0.041	<0.002	<0.006	<0.006	0.16	<0.0005	0.15	<0.001	0.011
	09/13/17	0.0022	0.042	<0.002	<0.006	<0.006	0.21	<0.0005	0.16	0.0055	0.014
	09/08/16	0.0017	0.04	<0.002	<0.006	<0.006	0.1	<0.0005	0.15	0.0039	0.013
	08/12/15	<0.005	0.05	<0.002	<0.006	<0.006	0.6	0.0029	0.16	<0.005	<0.01
	09/09/14	0.0022	0.042	<0.002	<0.006	<0.006	0.096	<0.001	0.14	0.0047	0.014
	09/09/13	0.0016	0.044	<0.002	<0.006	<0.006	0.078	<0.005	0.16	0.0035	0.014
	08/24/12	0.0011	0.043	<0.002	<0.006	<0.006	0.064	<0.005	0.16	0.0019	0.014
	10/28/11	<0.001	0.051	<0.002	<0.006	<0.006	0.26	<0.005	0.25	0.0013	0.016
	07/20/10	<0.02	0.047	<0.002	<0.006	<0.006	0.14	<0.005	0.22	1.2	0.012
BW-2C	08/14/19	0.00087	0.019	<0.002	0.0031	<0.006	0.16	0.00019	0.012	<0.001	0.0054
	09/18/18	0.00077	0.018	<0.002	<0.006	<0.006	0.17	<0.0005	0.012	<0.001	0.0059
	09/13/17	0.00079	0.014	<0.002	0.0014	<0.006	<0.02	<0.0005	0.0015	<0.005	0.0046
	09/08/16	0.00067	0.016	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0039	0.0007	0.0050
	08/12/15	<0.005	0.018	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.005	0.0054
	09/10/14	<0.001	0.031	<0.002	<0.006	<0.006	0.81	<0.005	0.026	<0.001	0.0051
	09/09/13	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.0025	<0.001	0.0053
	08/24/12	<0.001	0.086	0.0056	<0.006	<0.006	3.0	<0.005	0.049	<0.001	0.0048
	10/28/11	<0.001	0.015	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	0.0044
	07/20/10	<0.02	<0.02	<0.002	<0.006	<0.006	0.028	<0.005	0.0045	<0.05	0.006



8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Dissolved Metals Analytical Result Summary

PARAMETERS																	
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)				
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0				
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE				
NMED TAP WATER (Rev 2. JUN 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96				
EPA RSL for Tap Water (NOV 2019)			0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6				
WELL ID	DATE SAMPLED	METHOD															
BW-3B	08/14/19	200.7/200.8	0.0059	0.1	<0.002	<0.006	<0.006	<0.006	<0.0005	0.1	<0.001	0.00011	0.0051				
	09/12/18	200.7/200.8	0.0047	0.11	<0.002	<0.006	<0.006	<0.006	<0.0005	0.11	<0.001	0.00019	0.0076				
	09/13/17	200.7/200.8	0.0052	0.083	<0.002	0.0016	<0.006	<0.006	<0.0005	0.075	0.0027	0.00016	<0.01				
	09/08/16	200.7/200.8	0.0059	0.1	<0.002	<0.006	<0.006	<0.006	<0.0025	0.11	0.0024	0.00013	<0.01				
	08/12/15	200.7/200.8	0.0053	0.1	<0.002	<0.006	<0.006	<0.006	<0.0025	0.11	<0.005	<0.0025	<0.01				
	09/10/14	200.7/200.8	0.0061	0.11	<0.002	<0.006	<0.006	<0.006	<0.005	0.1	0.0027	<0.005	0.015				
	09/09/13	200.7/200.8	0.0052	0.1	<0.002	<0.006	<0.006	<0.006	<0.005	0.12	0.002	<0.005	<0.01				
	08/23/12	200.7/200.8	0.0049	0.091	<0.002	<0.006	<0.006	<0.006	<0.005	0.11	0.001	<0.001	<0.01				
	10/28/11	200.7/200.8	0.0049	0.11	<0.002	<0.006	<0.006	<0.006	<0.005	0.12	<0.001	<0.001	0.035				
	07/20/10	6010B	<0.02	0.076	<0.002	<0.006	<0.006	<0.006	<0.006	<0.005	0.083	<0.05	<0.001	0.054			
BW-3C	08/14/19	200.7/200.8	0.001	0.029	<0.002	0.0024	<0.006	<0.006	0.12	0.00061	<0.001	0.0012	0.0078				
	09/18/18	200.7/200.8	0.001	0.035	<0.002	<0.006	<0.006	<0.006	0.15	<0.0005	<0.001	0.0011	0.0072				
	09/13/17	200.7/200.8	0.0013	0.023	<0.002	0.0027	<0.006	<0.006	0.044	<0.0005	<0.005	0.0016	0.014				
	09/08/16	200.7/200.8	0.0013	0.027	<0.002	<0.006	<0.006	<0.006	0.029	<0.0005	0.00076	0.0015	<0.01				
	08/12/15	200.7/200.8	<0.005	0.031	<0.002	<0.006	<0.006	<0.006	0.13	<0.0025	<0.005	<0.0025	<0.01				
	09/10/14	200.7/200.8	0.0019	0.046	<0.002	<0.006	<0.006	<0.006	0.73	<0.005	<0.001	<0.005	<0.01				
	09/09/13	200.7/200.8	0.002	0.039	<0.002	<0.006	<0.006	<0.006	0.46	<0.005	<0.001	<0.005	<0.01				
	08/23/12	200.7/200.8	0.0022	0.035	<0.002	<0.006	<0.006	<0.006	0.031	<0.005	<0.001	0.0014	0.012				
	10/28/11	200.7/200.8	0.0017	0.034	<0.002	<0.006	<0.006	<0.006	<0.02	<0.005	<0.001	0.0013	0.066				
	07/20/10	6010B	<0.02	0.035	<0.002	<0.006	<0.006	<0.006	0.073	<0.005	<0.05	0.001	<0.05				



8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS				Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)				0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0
40 CFR 141.62 MCL				0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)				0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)				0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD												
BW-4B <sup>1</sup>	08/23/19	200.7/200.8	0.0093	0.082	<0.002	0.0096	0.0045	0.76	0.00069	0.055	0.00043	0.071	0.0076	
	05/22/19	200.7/200.8	0.011	0.063	<0.002	<0.006	<0.006	0.28	0.00045	0.044	0.00068	0.056	0.031	
	03/27/19	200.7/200.8	0.011	0.096	<0.002	0.012	0.007	0.0097	0.00097	0.0016	0.00019	0.057	0.028	
	11/13/18	200.7/200.8	0.011	0.14	<0.002	0.012	0.007	2.1	0.0027	0.11	<0.001	0.054	0.028	
BW-5B	10/16/19	200.7/200.8	0.0023	0.14	<0.002	0.0029	<0.006	<0.02	<0.0005	0.0012	0.0019	0.035	0.013	
	08/15/19	200.7/200.8	0.0013	0.16	<0.002	<0.006	0.0028	0.012	<0.0025	0.012	0.0018	0.029	0.0052	
	05/22/19	200.7/200.8	0.0012	0.15	<0.002	<0.006	<0.006	<0.02	<0.0005	0.011	0.0015	0.028	0.068	
	03/27/19	200.7/200.8	0.0028	0.099	<0.002	<0.006	<0.006	0.021	<0.0005	0.0018	0.0022	0.035	0.034	
	11/13/18	200.7/200.8	0.0014	0.11	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0088	0.0012	0.031	0.021	
	09/10/18	200.7/200.8	0.0014	0.099	<0.002	<0.006	<0.006	0.053	<0.0005	0.0094	0.0014	0.029	0.015	
	05/14/18	200.7/200.8	0.0031	0.089	<0.002	0.0019	<0.006	0.35	<0.0025	0.016	<0.02	0.038	0.0099	
	02/26/18	200.7/200.8	0.0022	0.064	<0.002	<0.006	<0.006	0.1	<0.0005	0.012	0.0029	0.033	0.0088	
	12/08/17	200.7/200.8	0.0032	0.05	<0.002	<0.006	<0.006	<0.006	0.024	<0.0005	0.0064	0.04	0.007	
	10/16/19	200.7/200.8	<0.005	0.098	<0.002	<0.006	0.0017	0.44	<0.0025	0.028	<0.005	0.044	0.026	
BW-5C	08/15/19	200.7/200.8	0.00038	0.089	<0.002	<0.006	0.0039	0.3	<0.0005	0.021	0.00073	0.046	0.013	
	05/21/19	200.7/200.8	0.00035	0.096	<0.002	<0.006	<0.006	0.37	<0.0005	0.028	0.0019	0.039	0.038	
	03/27/19	200.7/200.8	0.00032	0.093	<0.002	<0.006	<0.006	0.47	<0.0005	0.031	0.0011	0.04	0.026	
	11/13/18	200.7/200.8	0.00048	0.093	<0.002	<0.006	<0.006	0.43	<0.0005	0.031	<0.001	0.042	0.034	
	09/10/18	200.7/200.8	0.00075	0.094	<0.002	<0.006	<0.006	0.5	<0.0005	0.034	0.00093	0.038	0.0062	
	05/14/18	200.7/200.8	0.0036	0.088	<0.002	<0.006	<0.006	0.42	<0.0025	0.03	<0.02	0.048	0.0059	
	02/26/18	200.7/200.8	<0.01	0.1	<0.002	<0.006	<0.006	0.32	<0.0005	0.033	<0.01	0.036	0.0074	
	12/08/17	200.7/200.8	<0.02	0.011	<0.002	<0.006	<0.006	0.29	<0.0005	0.043	<0.01	0.041	0.0074	



### 8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

#### Dissolved Metals Analytical Result Summary

PARAMETERS												
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD										

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

1) Did not sample BW-4B in the 4th Qtr 2019 - not enough water for sampling. Recharge slow.



8.1.4 BW-1C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C  
 Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS									
			Acetone (mg/L)	Benzoic Acid (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,1-Dichloroethane (mg/L)	1,2- Dibromethane (EDB) (mg/L)	Carbon disulfide (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	0.005	0.025	0.00005	NE	NE	NE	
40 CFR 141.61 MCL			NE	NE	0.006	0.005	NE	0.00005	NE	NE	NE	
NMED TAP WATER (Rev 2. JUN 2019)			14.06	NE	0.0556	0.0017	0.0275	0.0000747	0.81	0.00459	NE	
EPA RSL for Tap Water (NOV 2019)			14	75	0.0056	0.013	0.0028	0.000075	NE	0.00046	0.2	
WELL ID	DATE SAMPLED	METHOD										
BW-1C <sup>2</sup>	08/15/19	8260B	<0.01	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/12/18	8260B	0.0045	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0036	NA	NA	<0.001	<0.001					
	09/03/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/10/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	09/09/13	8270C/8260B	<0.010	<0.04	0.01	<0.001	<0.001					
BW-2A <sup>2</sup>	08/14/19	8260B	<0.010	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/12/18	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0091	NA	NA	<0.001	<0.001					
	09/08/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/09/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	09/09/13	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
BW-2B <sup>2</sup>	08/14/19	8260B	<0.01	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/12/18	8260B	0.0042	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0061	NA	NA	<0.001	<0.001					
	09/08/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/09/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	09/09/13	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
BW-2C <sup>2</sup>	08/14/19	8260B	<0.01	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/18/18	8260B	0.0041	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0069	NA	NA	<0.001	<0.001					
	09/08/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/10/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	09/09/13	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
BW-3B <sup>2</sup>	08/14/19	8260B	<0.01	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/12/18	8260B	0.0035	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0086	NA	NA	<0.001	<0.001					
	09/08/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/10/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	09/09/13	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
BW-3C <sup>2</sup>	08/14/19	8260B	<0.01	NA	NA	<0.001	<0.001	<0.001	<0.010			
	09/18/18	8260B	0.0019	NA	NA	<0.001	<0.001					
	09/13/17	8260B	0.0038	NA	NA	<0.001	<0.001					
	09/08/16	8260B	<0.010	NA	NA	<0.001	<0.001					
	08/12/15	8260B	<0.010	NA	NA	<0.001	<0.001					
	09/10/14	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
	08/23/12	8270C/8260B	<0.010	<0.02	<0.01	<0.001	<0.001					
BW-4B <sup>3</sup>	10/28/11	8270C	0.014 <sup>1</sup>									
	08/23/19	8270C/8260B	<0.01	<0.02	<0.01	<0.001	<0.001	<0.001	<0.01		<0.01	
	05/22/19	270C/8260B/8011/504	0.012	<0.1	<0.05	<0.001	<0.001	<0.0000093	0.00063		0.02	
	03/27/19	8270C/8260B	0.0046	0.0067	<0.01	<0.001	<0.001					
	11/13/18	8270C/8260B	0.002	<0.1	0.13	<0.001	<0.001					
	BW-5B	10/16/19	8270C/8260B	<0.01	<0.02	0.00394	<0.001	<0.001	<0.001			
		08/15/19	8270C/8260B	<0.01	<0.02	<0.01	<0.001	<0.001	<0.001			
05/22/19		270C/8260B/8011/504	0.016	<0.02	<0.01	<0.001	<0.001	<0.0000093				
03/27/19		8270C/8260B	0.0042	<0.02	<0.01	<0.001	<0.001					
11/13/18		8270C/8260B	0.0024	<0.02	0.016	0.00036	0.00037					
09/10/18		8270C/8260B	0.0013	0.0066	<0.01	<0.001	<0.001					
05/14/18		8270C/8260B	0.002	<0.02	<0.01	<0.001	<0.001					
BW-5C	02/26/18	8270C/8260B	<0.010	0.032	<0.01	<0.001	<0.001					
	12/08/17	8270C	0.0015	0.0065	<0.01	<0.001	<0.001					
	10/16/19	8270C/8260B	<0.01	<0.0005	<0.05	0.00067	0.00082	<0.0000094		0.00452		
	08/15/19	8270C/8260B	<0.01	<0.02	0.0069	0.00066	0.00091	<0.001				
	05/21/19	270C/8260B/8011/504	<0.01	0.014	<0.01	0.00066	0.0011	<0.0000093				
	03/27/19	8270C/8260B	0.0055	0.0085	<0.01	0.00052	0.00067					
	11/13/18	8270C/8260B	0.0018	<0.1	<0.05	0.00062	0.00076					
09/10/18	8270C/8260B	0.0037	0.0064	<0.01	0.00056	0.00078						
05/14/18	8270C/8260B	0.002	<0.02	<0.01	0.00063	0.00081						
02/26/18	8270C/8260B	<0.010	0.021	<0.01	0.00062	0.00076						
12/08/17	8270C/8260B	0.0011	0.0047	<0.01	0.00058	0.00066						



#### 8.1.4 BW-1C, BW-3B, BW-3C, BW-5A, BW-5B, BW-5C

##### Volatile and Semi-Volatile Organic Compound Analytical Result Summary

###### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

###### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

###### NOTES

1) Detected for the first time. Possible lab contaminant.

2) Request to remove 8270C Analysis in 2015 approved per NMED Comment 7(b), Approval with Modification, FWGWMWP - 2012 Updates; 2013 Updates; 2014 Updates for 2015.

3) Did not sample BW-4B in the 4th Qtr 2019 - not enough water for sampling. Recharge slow.



**8.2 MW-1, MW-2, MW-4, MW-5**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.1	0.015	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MW-1	08/12/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/06/18 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/16/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/06/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-2	07/16/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/06/18 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/16/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-4	10/10/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/06/18 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/13/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/21/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/17/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-5	10/12/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/19/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/06/18 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/17/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/19/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001



**8.2 MW-1, MW-2, MW-4, MW-5**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.1	0.015	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

(1) RCRA Post Closure Sampling Event



## General Chemistry and DRO/GRO/MRO Analytical Result Summary

## PARAMETERS



# 8.2.1 MW-1, MW-2, MW-4, MW-5

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

PARAMETERS									
STANDARDS									
WELL ID	DATE SAMPLED	METHOD	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	MRO (mg/L)
			1.6	250.0	1	10	600.0	NE	NE
MW-4	08/13/19 12/06/18 <sup>2</sup> 09/13/18 09/21/17 09/07/16 08/17/15 09/17/14 09/10/13 08/21/12 10/12/11 07/19/10 03/01/10 <sup>1</sup>	300.0/8015D 8015D 300.0/8015D 300.0/8015D 300.0/8015D 300.0/8015D 300.0/8015B 300.0/8015B 300.0/8015B 300.0/8015B 300.0/8015B 8015B	4.0	NE	1	10	NE	NE	NE
			1.18	NE	1.97	31.60	NE	NE	NE
			0.8	NE	2	32	NE	NE	NE
			NE	NE	NE	NE	NE	0.0167	0.0858
			0.34	16	<1.0	<1.0	160	<1.0	<5.0
			NA	NA	NA	NA	NA	<1.0	<5.0
			0.42	16	<0.5	<0.5	150	<1.0	<5.0
			<0.5	16	<1.0	<1.0	160	<1.0	<5.0
			0.21	18	<1.0	<1.0	140	<1.0	0.02
			0.29	18	<1.0	<1.0	140	<1.0	<5.0
MW-5	08/14/19 12/06/18 <sup>2</sup> 09/17/18 09/11/17 09/07/16 08/14/15 09/17/14 09/10/13 08/23/12 10/10/11 07/19/10 03/01/10 <sup>1</sup>	300.0/8015D 8015D 300.0/8015D 300.0/8015D 300.0/8015D 300.0/8015D 300.0/8015B 300.0/8015B 300.0/8015B 300.0/8015B 300.0/8015B 8015B	0.77	60	<0.5	<0.5	180	<1.0	<5.0
			NA	NA	NA	NA	NA	<1.0	<5.0
			0.7	63	<0.5	<0.5	170	<1.0	<5.0
			0.68	60	<1.0	<1.0	170	<1.0	<5.0
			0.65	56	<1.0	<1.0	160	<1.0	0.027
			0.72	58	<1.0	<1.0	160	<1.0	<5.0
			0.73	56	1.1	1.1	150	<1.0	<5.0
			0.76	57	<0.1	0.8	160	<1.0	<5.0
			0.67	55	<1.0	<1.0	160	<1.0	<5.0
			0.79	59	<1.0	<1.0	170	<1.0	<5.0
			NA	NA	NA	NA	NA	<1.0	NA
			NA	NA	NA	NA	NA	<1.0	NA



**8.2.1 MW-1, MW-2, MW-4, MW-5**  
**General Chemistry and DRO/GRO/MRO Analytical Result Summary**

		PARAMETERS							
STANDARDS		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
	WQCC 20NMAC 6.2.3103 (DEC 2018)	1.6	250.0	1	10	600.0	NE	NE	NE
	40 CFR 141.61 MCL	4.0	NE	1	10	NE	NE	NE	NE
	NMED TAP WATER (Rev 2. JUN 2019)	1.18	NE	1.97	31.60	NE	NE	NE	NE
	EPA RSL for Tap Water (NOV 2019)	0.8	NE	2	32	NE	NE	NE	NE
	NMED SSG (JUN 2019)	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



# 8.2.2 MW-1, MW-2, MW-4, MW-5

## Total Metals Analytical Result Summary

PARAMETERS												
STANDARDS												
Well ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Zinc (mg/L)
MW-1	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.05	1.0	0.015	0.2	0.05	0.2	0.002	0.03
	40 CFR 141.62 MCL		0.01	2.0	0.1	NE	0.015	NE	0.05	0.2	0.002	0.03
	NIMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.0057	13.8	NE	2.02	0.0987	0.00146	0.000626	0.0592
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	22	14	0.015	0.43	0.1	0.0015	0.00063	0.004
	METHOD											
	08/12/19	200.7/200.8	0.0013	0.014	0.0017	0.12	0.00037	0.0046	<0.001	<0.005	0.000054	0.01
	12/06/18 <sup>2</sup>	6010B/6020	0.0011	<0.02	<0.006	NA	<0.001	NA	<0.001	<0.01	0.000096	NA
	09/13/18	200.7/200.8	0.0013	0.013	0.0018	0.16	0.0013	0.01	<0.001	<0.005	NA	0.0094
	09/20/17	200.7/200.8	0.00097	0.015	0.0074	0.26	0.0016	0.014	<0.001	<0.005	<0.0002	NA
	09/07/16	200.7/200.8	0.0015	0.012	<0.006	<0.02	0.00014	0.0032	0.00053	<0.01	0.000056	0.01
MW-2	08/14/15	200.7/200.8	0.0013	0.013	<0.006	0.048	0.00051	0.0033	<0.001	<0.01	<0.0002	0.011
	09/16/14	200.7/200.8	0.0011	0.012	<0.006	0.11	0.0017	0.012	<0.001	<0.01	<0.0002	0.012
	09/09/13	200.7/200.8	0.0014	0.011	<0.006	<0.02	<0.001	<0.002	<0.001	0.0407	<0.0002	0.011
	08/24/12	200.7/200.8	<0.0025	0.014	<0.006	0.078	<0.005	0.0071	<0.0025	NA	<0.0002	0.011
	10/06/11	200.7/200.8	<0.0025	0.012	<0.006	0.12	<0.005	0.01	<0.0025	NA	<0.0002	0.011
	07/16/10	6010B	0.0015	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA
	03/01/10 <sup>1</sup>	6010B	<0.005	<0.02	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA
	08/13/19	200.7/200.8	0.0012	0.017	<0.006	0.01	<0.0005	0.0026	<0.001	<0.005	0.000046	0.0086
	12/06/18 <sup>2</sup>	6010B/6020	0.0011	<0.02	<0.006	NA	<0.001	NA	<0.001	<0.01	0.000091	NA
	09/13/18	200.7/200.8	0.00099	0.017	<0.006	0.01	<0.0005	0.0026	<0.001	<0.005	NA	0.008
MW-2	09/20/17	200.7/200.8	0.00073	0.022	<0.006	0.097	0.00055	0.018	<0.001	<0.005	0.00004	NA
	09/07/16	200.7/200.8	0.0013	0.02	<0.006	0.023	<0.0005	0.0031	0.00058	<0.01	0.000056	0.0088
	08/14/15	200.7/200.8	<0.001	0.02	<0.006	0.023	<0.0005	0.0035	<0.001	<0.01	<0.0002	0.0094
	09/16/14	200.7/200.8	<0.001	0.019	<0.006	<0.02	<0.001	0.0031	<0.001	<0.01	<0.0002	0.0095
	09/10/13	200.7/200.8	0.001	0.02	<0.006	<0.02	<0.001	0.006	<0.001	<0.01	<0.0002	0.0097
	08/24/12	200.7/200.8	<0.0025	0.021	<0.006	0.022	<0.005	0.0072	<0.0025	NA	<0.0002	0.0097
	10/10/11	200.7/200.8	<0.0025	0.02	<0.006	<0.02	<0.005	0.008	<0.0025	NA	<0.0002	0.0096
	03/01/10 <sup>1</sup>	6010B	<0.005	<0.02	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA
	08/13/19	200.7/200.8	0.0012	0.017	<0.006	0.01	<0.0005	0.0026	<0.001	<0.005	0.000046	0.0086
	12/06/18 <sup>2</sup>	6010B/6020	0.0011	<0.02	<0.006	NA	<0.001	NA	<0.001	<0.01	0.000091	NA



## Total Metals Analytical Result Summary

PARAMETERS													
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.05	1.0	0.015	0.2	0.05	0.2	0.002	0.03	10
40 CFR 141.62 MCL			0.01	2.0	0.1	NE	0.015	NE	0.05	0.2	0.002	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.000855	3.28	0.0057	13.8	NE	2.02	0.0987	0.00146	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)			0.000052	3.80	22	14	0.015	0.43	0.1	0.0015	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MW-4	08/13/19	200.7/200.8	0.00071	0.02	<0.006	<0.02	<0.0005	0.0056	<0.001	<0.005	<0.0002	0.013	<0.01
	12/06/18 <sup>2</sup>	6010B/6020	0.00075	0.021	<0.006	NA	<0.001	NA	<0.001	<0.01	0.000087	NA	<0.02
	09/13/18	200.7/200.8	0.00076	0.02	<0.006	<0.02	<0.0005	0.0059	<0.001	<0.005	NA	0.014	<0.01
	09/21/17	200.7/200.8	0.00084	0.02	<0.006	0.021	0.00017	0.0069	<0.001	<0.005	<0.0002	NA	<0.01
	09/07/16	200.7/200.8	0.00098	0.022	<0.006	0.028	0.00017	0.0064	0.00065	<0.01	<0.0002	0.016	<0.01
	08/17/15	200.7/200.8	<0.001	0.02	<0.006	<0.02	<0.0005	0.0052	<0.001	<0.01	<0.0002	0.016	<0.01
	09/17/14	200.7/200.8	<0.001	0.022	<0.006	<0.02	<0.001	0.0061	<0.001	<0.01	<0.0002	0.018	<0.01
	09/10/13	200.7/200.8	<0.001	0.021	<0.006	<0.02	<0.001	0.0058	<0.001	<0.01	<0.0002	0.018	<0.01
	08/21/12	200.7/200.8	<0.0025	0.02	<0.006	<0.02	<0.005	0.0034	<0.0025	NA	<0.0002	0.018	<0.01
	10/12/11	200.7/200.8	<0.0025	0.022	<0.006	<0.02	<0.005	0.0069	<0.0025	NA	<0.0002	0.018	<0.01
MW-5	07/19/10	6010B	0.0012	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA	<0.02
	03/01/10 <sup>1</sup>	6010B	<0.005	0.023	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02
	08/14/19	200.7/200.8	0.00099	0.021	<0.006	<0.02	<0.0005	0.0045	<0.001	<0.005	<0.0002	0.009	<0.01
	12/06/18 <sup>2</sup>	6010B/6020	0.001	<0.02	<0.006	NA	<0.001	NA	<0.001	<0.01	0.000089	NA	<0.02
	09/17/18	200.7/200.8	0.0011	0.021	<0.006	<0.02	<0.0005	0.0045	<0.001	<0.005	0.000096	0.0082	<0.01
	09/11/17	200.7/200.8	0.001	0.02	<0.006	<0.02	<0.0005	0.0043	<0.001	<0.005	<0.0002	0.0099	<0.01
	09/07/16	200.7/200.8	0.0012	0.041	<0.006	<0.02	<0.0005	0.0046	0.00038	<0.01	0.000055	0.0092	<0.01
	08/14/15	200.7/200.8	<0.001	0.09	<0.006	<0.02	<0.0005	0.0031	<0.001	<0.01	<0.0002	0.0093	<0.01
	09/17/14	200.7/200.8	0.001	0.019	<0.006	<0.02	<0.001	0.0046	<0.001	<0.01	<0.0002	0.0098	<0.01
	09/10/13	200.7/200.8	<0.001	0.04	<0.006	<0.02	<0.001	0.0035	<0.001	<0.01	<0.0002	0.0096	<0.01
08/23/12			<0.0025	0.026	<0.006	<0.02	<0.005	0.012	<0.0025	NA	<0.0002	0.0095	<0.01
10/10/11			<0.0025	0.024	<0.006	<0.02	<0.005	0.0043	<0.0025	NA	<0.0002	0.0097	<0.01
07/19/10			0.0014	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA	<0.02
03/01/10 <sup>1</sup>			<0.005	0.024	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02



8.2.2 MW-1, MW-2, MW-4, MW-5  
Total Metals Analytical Result Summary

PARAMETERS												
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.05	1.0	0.015	0.2	0.05	0.2	0.002	0.03	10
40 CFR 141.62 MCL		0.01	2.0	0.1	NE	0.015	NE	0.05	0.2	0.002	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.0057	13.8	NE	2.02	0.0987	0.00146	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	22	14	0.015	0.43	0.1	0.0015	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD										

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



**8.2.3 MW-1, MW-2, MW-4, MW-5**  
**Dissolved Metals Analytical Result Summary**

STANDARDS		PARAMETERS											
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0	
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE	
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	NE	0.8	14	0.015	0.43	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD											
MW-1	08/12/19	200.7/200.8											
	12/06/18 <sup>1</sup>	--											
	09/13/18	200.7/200.8	0.0013	NA	0.0024	<0.006	<0.02	<0.0005	0.002	<0.001	0.0095	0.0069	
	09/20/17	200.7/200.8	0.0013	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0018	0.00088	NA	0.011	
	09/07/16	200.7/200.8	0.0013	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0031	0.00054	0.011	<0.01	
	08/14/15	200.7/200.8	<0.01	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.01	0.011	<0.01	
	09/16/14	200.7/200.8	0.0012	0.0095	<0.006	<0.006	<0.02	<0.001	0.0027	<0.001	0.011	0.014	
	09/09/13	200.7/200.8	0.0016	0.012	<0.002	<0.006	<0.006	<0.02	<0.001	<0.001	0.012	<0.01	
	08/24/12	200.7/200.8	0.0013	0.012	<0.002	<0.006	<0.006	<0.02	<0.005	<0.001	0.011	<0.01	
	10/06/11	200.7/200.8	0.002	0.01	<0.002	<0.006	<0.006	<0.02	<0.005	<0.001	0.011	0.11	
MW-2	08/13/19	200.7/200.8	0.0011	0.017	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0018	0.0084	0.01	
	12/06/18 <sup>1</sup>	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	09/13/18	200.7/200.8	0.00098	0.018	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0024	0.008	0.0079	
	09/20/17	200.7/200.8	0.0011	0.018	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0028	0.00081	NA	
	09/07/16	200.7/200.8	0.0011	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0031	0.0095	<0.01	
	08/14/15	200.7/200.8	<0.01	0.017	<0.002	<0.006	<0.006	<0.02	<0.0025	0.0021	0.0091	<0.01	
	09/16/14	200.7/200.8	0.0012	0.017	<0.002	<0.006	<0.006	<0.02	<0.001	0.0026	0.0093	0.026	
	09/10/13	200.7/200.8	<0.001	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.0051	0.0095	<0.01	
	08/24/12	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.003	0.009	0.019	
	10/10/11	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	0.007	0.0093	<0.01	
MW-4	08/13/19	200.7/200.8	0.00078	0.021	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0052	0.014	0.0066	
	12/06/18 <sup>1</sup>	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	09/13/18	200.7/200.8	0.00072	0.021	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0064	0.014	0.011	
	09/21/17	200.7/200.8	0.00087	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0052	0.00088	0.011	
	09/07/16	200.7/200.8	0.00089	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0046	0.00072	<0.01	
	08/17/15	200.7/200.8	<0.01	0.021	<0.002	<0.006	<0.006	<0.02	<0.0025	0.0051	0.016	0.036	
	09/17/14	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.0057	0.017	<0.01	
	09/10/13	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.001	0.0057	0.018	0.017	
	08/21/12	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	0.0031	0.016	0.033	
	10/12/11	200.7/200.8	<0.001	0.021	<0.002	<0.006	<0.006	<0.02	<0.005	0.0058	0.017	0.1	



**8.2.3 MW-1, MW-2, MW-4, MW-5**  
**Dissolved Metals Analytical Result Summary**

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0	
	40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE	
	NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	NE	0.8	14	0.015	0.43	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD												
MW-5	08/14/19	200.7/200.8	0.00098	0.016	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0037	<0.001	0.0078	0.006	
	12/06/18 <sup>1</sup>	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	09/17/18	200.7/200.8	0.00093	0.017	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0039	<0.001	0.0075	0.011	
	09/11/17	200.7/200.8	0.0012	0.017	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0042	0.0012	0.0095	0.029	
	09/07/16	200.7/200.8	0.0010	0.017	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0035	0.0005	0.0094	<0.01	
	08/14/15	200.7/200.8	<0.01	0.017	<0.002	<0.006	<0.006	<0.02	<0.0025	0.0032	<0.01	0.0091	<0.01	
	09/17/14	200.7/200.8	0.0012	0.015	<0.002	<0.006	<0.006	<0.02	<0.001	0.0045	<0.001	0.0094	0.025	
	09/10/13	200.7/200.8	0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.0034	<0.001	0.01	0.012	
	08/23/12	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	0.0029	<0.001	0.0091	<0.01	
	10/10/11	200.7/200.8	0.0011	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	0.0044	<0.001	0.0095	0.12	

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) RCRA Post Closure Sampling Event



# 8.2.4 MW-1, MW-2, MW-4, MW-5

## Volatile and Semi-Volatile Organic Compound Analytical Result Summary

PARAMETERS										
STANDARDS										
WQCC 20 NMAC 6.2.3103 (DEC 2018)			Acetone (mg/L)	Benzoic Acid (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)	Di-n- octylphthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Methylene Chloride (mg/L)	Pyrene (mg/L)
40 CFR 141.61 MCL			NE	NE	NE	NE	NE	NE	0.005	NE
NMED TAP WATER (Rev 2. JUN 2019)			NE	NE	0.006	NE	NE	NE	0.005	NE
EPA RSL for Tap Water (NOV 2019)			14.06	NE	0.0556	NE	14.8	0.612	0.106	0.117
			14	75	0.0056	0.2	15	NE	0.011	0.12
WELL ID			DATE SAMPLED	METHOD						
MW-1		08/12/19	8260/8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.003	
		12/06/18 <sup>2</sup>	8260B/8270C	0.0036	NA	<0.0005	<0.0005	<0.0005	<0.003	<0.0005
		09/13/18	8260B/8270C	<0.01	0.0066	<0.01	<0.01	<0.01	0.00041	
		09/20/17	8260B/8270C	0.0044	<0.02	<0.01	<0.01	<0.01	<0.01	
		09/07/16	8260B/8270C	<0.01	0.0098	0.004	0.0044	<0.01	0.0051	
		08/14/15	8260B/8270C	<0.01		<0.01		<0.01		
		09/16/14	8260B/8270C	<0.01		<0.01		<0.01		
		09/09/13	8260B/8270C	<0.01		<0.01		<0.01		
		08/24/12	8260B/8270C	<0.01		<0.01		<0.01		
		10/06/11	8260B	<0.01		NL		NA		
		07/16/10	8260B/8270C	<0.01		<0.005		0.0010		
		03/01/10 <sup>1</sup>	8260B/8270C	<0.0025		<0.005		NA		
MW-2		08/13/19	8260/8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
		12/06/18 <sup>2</sup>	8260B/8270C	0.0092	NA	<0.0005	<0.0005	<0.0005	<0.003	<0.0005
		09/13/18	8260B/8270C	<0.01	0.0068	<0.01	<0.01	<0.01	<0.003	<0.01
		09/20/17	8260B/8270C	0.0043	0.0073	0.006	<0.01	<0.01	<0.01	<0.01
		09/07/16	8260B/8270C	<0.01	0.018	0.0038	0.0035	<0.01	0.005	0.0052
		08/14/15	8260B/8270C	<0.01		<0.01		<0.01		
		09/16/14	8260B/8270C	<0.01		<0.01		<0.01		
		09/10/13	8260B/8270C	<0.01		<0.01		<0.01		
		08/24/12	8260B/8270C	<0.01		<0.01		<0.01		
		10/10/11	8260B	<0.01		NA		NA		
		03/01/10 <sup>1</sup>	8260B/8270C	0.0027		<0.005		<0.01		



# 8.2.4 MW-1, MW-2, MW-4, MW-5

## Volatile and Semi-Volatile Organic Compound Analytical Result Summary

		PARAMETERS							
STANDARDS		Acetone (mg/L)	Benzoic Acid (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)	Di-n- octylphthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Methylene Chloride (mg/L)	Pyrene (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		NE	NE	NE	NE	NE	NE	0.005	NE
40 CFR 141.61 MCL		NE	NE	0.006	NE	NE	NE	0.005	NE
NMED TAP WATER (Rev 2. JUN 2019)		14.06	NE	0.0556	NE	14.8	0.612	0.106	0.117
EPA RSL for Tap Water (NOV 2019)		14	75	0.0056	0.2	15	NE	0.011	0.12
WELL ID	DATE SAMPLED	METHOD							
MW-4	08/13/19	8260/8270C							
	12/06/18 <sup>2</sup>	8260B/8270C							
	09/13/18	8260B/8270C							
	09/21/17	8260B/8270C							
	09/07/16	8260B/8270C							
	08/17/15	8260B/8270C							
	09/17/14	8260B/8270C							
	09/10/13	8260B/8270C							
	08/21/12	8260B/8270C							
	10/12/11	8260B							
	07/19/10	8260B/8270C							
	03/01/10 <sup>1</sup>	8260B/8270C							
		<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01
MW-5	08/14/19	8260/8270C							
	12/06/18 <sup>2</sup>	8260B/8270C							
	09/17/18	8260B/8270C							
	09/11/17	8260B/8270C							
	09/07/16	8260B/8270C							
	08/14/15	8260B/8270C							
	09/17/14	8260B/8270C							
	09/10/13	8260B/8270C							
	08/23/12	8260B/8270C							
	10/10/11	8260B							
	07/19/10	8260B/8270C							
	3/1/2010 <sup>1</sup>	8260B/8270C							
		<0.01	<0.02	0.018	<0.01	<0.01	<0.01	<0.005	<0.01
		<0.010	NA	0.00112	<0.0005	<0.0005	<0.0005	<0.003	<0.0005
		0.00099	0.007	<0.01	<0.01	<0.01	<0.01	<0.003	
		0.005	<0.02	0.0057	<0.01	<0.01	<0.01		
		<0.01	0.0065	0.0033	0.0034	<0.01	0.0051		
		<0.01		<0.01		<0.01			
		<0.01		<0.01		<0.01			
		<0.01		<0.01		<0.01			
		<0.01		<0.01		<0.01			
		<0.01		<0.01		<0.01			
		<0.01		NA		NA			
		<0.01		<0.005		<0.01			
		0.0034		<0.005		NA			



## 8.2.4 MW-1, MW-2, MW-4, MW-5

### Volatile and Semi-Volatile Organic Compound Analytical Result Summary

		PARAMETERS							
		Acetone (mg/L)	Benzoic Acid (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)	Di-n- octylphthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Methylene Chloride (mg/L)	Pyrene (mg/L)
STANDARDS									
	WQCC 20 NMAC 6.2.3103 (DEC 2018)	NE	NE	NE	NE	NE	NE	0.005	NE
	40 CFR 141.61 MCL	NE	NE	0.006	NE	NE	NE	0.005	NE
	NMED TAP WATER (Rev 2. JUN 2019)	14.06	NE	0.0556	NE	14.8	0.612	0.106	0.117
	EPA RSL for Tap Water (NOV 2019)	14	75	0.0056	0.2	15	NE	0.011	0.12
WELL ID	DATE SAMPLED	METHOD							

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



### 8.3 SMW-2, SMW-4

#### BTEx and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.00046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
SMW-2	08/22/19	8260B	0.00023	<0.001	<0.001	<0.0015	0.012
	09/18/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	09/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	08/18/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	09/11/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.0097
	08/23/12	8260B	<0.01	<0.01	<0.01	<0.015	0.012
	10/12/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0079
	07/16/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.0088
SMW-4	08/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/06/18 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/11/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/24/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/16/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

(1) RCRA Post Closure Sampling Event



### 8.3.1 SMW-2, SMW-4

#### General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS		PARAMETERS							
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)		1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.61 MCL		4.0	NE	1	10	NE	NE	NE	NE
NMED TAP WATER (Rev 2. JUN 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)		0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
SMW-2	08/22/19	300.0/8015D	2900	3.3	<0.5	1400	1.1	0.21	<5.0
	09/18/18	300.0/8015D	2900	<2.0	<2.0	1500	<1.0	0.25	<5.0
	09/11/17	300.0/8015D	2900	<2.0	<2.0	1400	0.41	0.23	<5.0
	09/09/16	300.0/8015D	2500	<2.0	<2.0	1300	<1.0	1.0	<5.0
	08/18/15	300.0/8015D	3000	<4.0	<4.0	1601	<1.1	1.78	<5.1
	09/11/14	300.0/8015D	2500	<2.0	<2.0	1400	<1.0	0.23	<5.0
	09/09/13	300.0/8015D	2500	<4.0	<4.0	1500	<1.0	0.15	<5.0
	08/23/12	300.0/8015D	2400	<2.0	<2.0	1600	<1.0	0.28	<5.0
	10/12/11	300.0/8015D	2600	<1.0	<1.0	1600	<1.0	0.36	<5.0
	07/16/10	8015D	NA	NA	NA	NA	<1.0	<0.05	<5.0
SMW-4	08/13/19	300.0/8015D	59	<0.5	0.11	170	<1.0	<0.05	<5.0
	12/06/18 <sup>2</sup>	8015D	NA	NA	NA	NA	<1.0	<0.05	<5.0
	09/12/18	300.0/8015D	59	<0.5	0.12	160	<1.0	<0.05	<5.0
	09/11/17	300.0/8015D	56	0.35	0.35	160	<1.0	<0.05	<5.0
	09/07/16	300.0/8015D	53	<1.0	<1.0	150	<1.0	0.028	<5.0
	08/14/15	300.0/8015D	55	<1.0	<1.0	160	<1.0	<0.05	<5.0
	09/11/14	300.0/8015D	53	<1.0	<1.0	150	<1.0	<0.05	<5.0
	09/09/13	300.0/8015D	59	<1.0	<1.0	170	<1.0	<0.05	<5.0
	08/24/12	300.0/8015D	58	<1.0	<1.0	150	<1.0	<0.05	<5.0
	10/10/11	300.0/8015D	58	1.3	1.3	170	<1.0	<0.05	<5.0
	07/16/10	8015D	NA	NA	NA	NA	<1.0	<0.05	<5.0
	03/01/10 <sup>1</sup>	8015D	NA	NA	NA	NA	<1.0	<0.05	<5.0

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

#### NOTES

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



8.3.2 SMW-2, SMW-4

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS																
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	
	WQCC 20NMAC 6.2.3103 (DECEMBER 2018)		0.01	2.0	0.005	0.05	0.05	1.0	1.0	0.015	0.2	0.2	0.05	0.2	0.002	0.03	NE	10	
	40 CFR 141.61 MCL		0.01	2.0	0.005	0.1	NE	1.3	NE	0.015	NE	NE	0.05	0.2	0.002	0.03	NE	NE	
	NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.005979	0.7898	13.8	NE	2.02	0.3719	0.0987	0.00146	0.000626	0.0592	0.06307	5.96	
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	22	0.006	0.8	14	0.015	0.43	0.39	0.1	0.0015	0.00063	0.004	0.086	6	
METHOD																			
SMW-2	08/22/19	200.7/200.8	0.0026	0.023	<0.002	0.047		<0.006	0.52	0.00059	37		<0.005	0.0374	0.000094	0.092		<0.01	
	09/18/18	200.7/200.8	0.0056	0.03	<0.002	0.026		<0.006	0.76	<0.0025	0.34		<0.005	0.0326	0.00006	0.091		0.0065	
	09/11/17	200.7/200.8	0.0092	0.082	<0.002	0.39		0.0042	4	0.0027	0.49		0.024	0.036	<0.0002	0.12		0.008	
	09/09/16	200.7/200.8	0.011	0.042	<0.002	0.13		<0.006	1.4	0.0013	0.3		0.016	0.041	0.000096	0.11		0.011	
	08/18/15	200.7/200.9	<0.02	1.018	<0.003	0.0071		<0.007	0.26	<0.006	0.33		<0.02	0.045	<0.0003	0.12		<0.02	
	09/11/14	200.7/200.8	<0.01	0.013	<0.002	<0.006		<0.006	0.052	<0.001	0.28		0.019	0.0456	<0.0002	0.11		<0.01	
	09/09/13	200.7/200.8	<0.01	0.028	<0.002	0.029		<0.006	0.66	<0.01	0.27		<0.01	0.0406	<0.0002	0.11		0.011	
	08/23/12	200.7/200.8	0.005	0.038	<0.002	0.17		<0.006	1.5	<0.005	0.25		0.0072	NA	<0.0002	0.11		0.021	
	10/12/11	200.7/200.8	0.0052	0.031	<0.002	0.11		<0.006	0.68	<0.005	0.16		0.011	NA	<0.0002	0.12		<0.01	
	07/16/10	6010B	0.0035	0.022	<0.002	0.093				<0.005			<0.001	0.0525	<0.0002			<0.02	
SMW-4	08/13/19	200.7/200.8	0.0034	0.027	<0.002	0.017		<0.006	0.71	0.00037	0.022		<0.001	<0.005	0.000054	0.03		0.0058	
	12/06/18 <sup>2</sup>	6010B/6020	0.0029	0.032	<0.002	0.011	0.019	NA	NA	0.001	NA	0.0095	0.00053	<0.01	0.000091	NA	0.05	0.0072	
	09/12/18	200.7/200.8	0.0031	0.027	<0.002	0.017		<0.006	0.71	0.00088	0.022		<0.001	<0.005	<0.0002	0.03		0.0058	
	09/11/17	200.7/200.8	0.0032	0.065	<0.002	0.06		0.0035	3.1	0.0032	0.068		0.00097	<0.005	<0.0002	0.033		0.016	
	09/07/16	200.7/200.8	0.0030	0.043	<0.002	0.036		0.0099	1.6	0.0017	0.035		0.00096	<0.01	0.000058	0.031		0.011	
	08/14/15	200.7/200.8	0.0030	0.028	<0.002	0.0078		<0.006	0.32	0.00053	0.01		<0.001	<0.01	<0.0002	0.036		<0.01	
	09/11/14	200.7/200.8	0.0034	0.024	<0.002	<0.006		<0.006	0.35	<0.001	0.012		0.0013	<0.01	<0.0002	0.037		<0.01	
	09/09/13	200.7/200.8	0.0025	0.021	<0.002	0.025		<0.006	0.15	<0.001	0.005		<0.001	<0.01	<0.0002	0.031		0.012	
	08/24/12	200.7/200.8	0.0033	0.019	<0.002	<0.006		<0.006	0.13	<0.005	0.0046		<0.0025	NA	<0.0002	0.033		<0.01	
	10/10/11	200.7/200.8	0.0029	0.037	<0.002	0.058		<0.006	0.94	<0.005	0.029		<0.0025	NA	<0.0002	0.037		0.012	
07/16/10	6010B	0.0033	0.027	<0.002	<0.006				<0.005			<0.001	<0.01	<0.0002			<0.02		
03/01/10 <sup>1</sup>	6010B	<0.005	0.035	<0.002	0.0082					<0.005			<0.005	<0.01	<0.0002			<0.02	

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NIMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



8.3.3 SMW-2, SMW-4

Dissolved Metals Analytical Result Summary

STANDARDS		PARAMETERS										
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)		0.01	2.0	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.80	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD										
SMW-2	08/22/19	200.7/200.8	0.0026	0.014	<0.002	<0.006	0.0037	0.026	<0.0025	<0.005	0.11	<0.01
	09/18/18	200.7/200.8	0.0041	0.014	<0.002	<0.006	<0.006	0.031	<0.0025	<0.005	0.099	0.0065
	09/11/17	200.7/200.8	0.0098	0.016	<0.002	0.0014	<0.006	0.054	<0.0025	0.024	0.12	0.033
	09/09/16	200.7/200.8	0.0066	0.018	<0.002	<0.006	<0.006	0.032	<0.0005	0.015	0.11	0.005
	08/18/15	200.7/200.9	<0.02	0.015	<0.003	<0.006	<0.006	0.022	<0.0026	<0.02	0.12	0.024
	09/11/14	200.7/200.8	<0.01	0.015	<0.002	<0.006	<0.006	0.049	<0.02	0.021	0.11	<0.01
	09/09/13	200.7/200.8	0.0055	0.016	<0.002	<0.006	<0.006	0.028	<0.01	0.011	0.1	0.014
	08/23/12	200.7/200.8	<0.005	0.016	<0.002	<0.006	<0.006	0.042	<0.005	0.0072	0.1	0.029
	10/12/11	200.7/200.8	0.0064	0.016	<0.002	<0.006	<0.006	<0.1	<0.005	0.015	0.11	0.11
	08/13/19	200.7/200.8	0.0031	0.017	<0.002	0.0026	<0.006	<0.02	<0.0005	<0.001	0.031	0.0075
SMW-4	12/06/18 <sup>2</sup>	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/12/18	200.7/200.8	0.0029	0.019	<0.002	0.0042	<0.006	0.079	<0.0005	<0.001	0.029	0.0094
	09/11/17	200.7/200.8	0.0032	0.023	<0.002	0.0043	<0.006	0.12	0.00059	<0.005	0.031	0.046
	09/07/16	200.7/200.8	0.0030	0.019	<0.002	0.0028	<0.006	0.078	0.0021	0.0011	0.032	0.0029
	08/14/15	200.7/200.8	<0.01	0.02	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.01	0.035	<0.01
	09/11/14	200.7/200.8	0.0033	0.021	<0.002	<0.006	<0.006	0.041	<0.01	0.0013	0.033	<0.01
	09/09/13	200.7/200.8	0.0026	0.021	<0.002	0.012	<0.006	<0.02	<0.001	<0.001	0.031	<0.01
	08/24/12	200.7/200.8	0.0028	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	<0.001	0.03	<0.01
	10/10/11	200.7/200.8	0.003	0.02	<0.002	0.0092	<0.006	0.035	<0.005	0.0011	0.032	0.13
	08/13/19	200.7/200.8	0.0031	0.017	<0.002	0.0026	<0.006	<0.02	<0.0005	<0.001	0.031	0.0075



8.3.3 SMW-2, SMW-4

Dissolved Metals Analytical Result Summary

DEFINITIONS

NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
a) Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1  
EPA Regional Screening Level (RSL) Summary Table

NOTES

- 1) RCRA Post Closure Sampling Event
- 2) RCRA Post Closure Sampling Event



### 8.3.4 SMW-2, SMW-4

#### Volatile and Semi-Volatile Organic Compound Analytical Result Summary

PARAMETERS										
STANDARDS		Acetone (mg/L)	Benzoic Acid (mg/L)	bis(2-Ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	1-4 Dioxane (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)  40 CFR 141.61 MCL  NMED TAP WATER (Rev 2. JUN 2019)  EPA RSL for Tap Water (NOV 2019)		NE	NE	NE	NE	NE	NE	0.005	NE	NE
		NE	NE	0.006	NE	NE	NE	NE	NE	NE
		14.06	NE	0.0556	NE	14.8	0.612	5.76	0.117	0.00459
		14	75	0.0056	0.2	15	NE	5.8	0.12	0.00046
SMW-2										
SMW-4										

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

1) RCRA Post Closure Sampling Event

2) RCRA Post Closure Sampling Event



## 8.4 OW-11, OW-12

### BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-11	08/20/19	8260B	0.00048	<0.001	0.00041	<0.0015	<0.001
	09/18/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/18/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/17/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/16/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/28/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-12	12/03/19	8260B	0.0011	<0.001	0.00054	<0.0015	<0.001
	09/19/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00051
	09/19/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/14/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/12/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/10/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	07/22/10	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



# 8.4.1 OW-11, OW-12

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

PARAMETERS											
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)											
40 CFR 141.62 MCL											
NMED TAP WATER (JUNE 2019)											
EPA RSL for Tap Water (NOV 2019)											
NMED SSG (JUNE 2019)											
WELL ID	DATE SAMPLED	METHOD	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	GRO (mg/L)	DRO (mg/L)	MRO (mg/L)
OW-11	08/20/19	300.0/8015D	1.6	250.0	1	10	NE	600.0	NE	NE	NE
	09/18/18	300.0/8015D	1.8	90	<0.5	0.89	<10	1000	<1.0	<0.05	<5.0
	09/18/17	300.0/8015D	1.7	97	1.2	1.2	<2.5	850	<0.05	<1.0	<5.0
	09/09/16	300.0/8015D	1.6	100	1.7	1.7	<10	900	<0.05	<1.0	<5.0
	08/17/15	300.0/8015D	1.9	100	2.1	2.1	<0.5	880	<0.05	<1.0	<5.0
	09/12/14	300.0	2.3	77	<0.1	0.34	<0.5	960			
	09/16/13	300.0	2.6	81	<0.1	0.34	<0.5	960			
	08/22/12	300.0	1.7	82	<1.0	<1.0	<10	940			
	10/26/11	300.0	2.2	95	<0.1	0.77	<0.5	940			
	07/28/10	300.0	2.8	89	<0.1	0.3	<0.5	1100			
OW-12	12/03/19	300.0/8015D	<0.50	17	<0.50	<0.50	<2.5	160	<0.05	<0.40	<2.5
	09/19/18	8015D	NA	NA	NA	NA	NA	NA	<0.05	<1.0	<5.0
	09/19/17	300.0/8015D	0.52	17	<0.5	0.11	<2.5	170	<0.05	<1.0	<5.0
	09/08/16	300.0/8015D	0.4	19	<1.0	<1.0	0.37	160	<0.05	<1.0	<5.0
	08/14/15	300.0/8015D	0.49	18	<0.1	<0.1	<0.5	151	<0.06	<1.1	<5.1
	09/12/14	300.0	0.47	19	<1.0	<1.0	<0.5	150			
	08/22/12 <sup>1</sup>	300.0	0.48	16	<1.0	<1.0	<0.5	150			



#### 8.4.1 OW-11, OW-12

##### General Chemistry and DRO/GRO/MRO Analytical Result Summary

###### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

###### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

###### NOTES

1) *General Chemistry analysis requested as part of the annual sampling*







8.4.3 OW-11, OW-12

Dissolved Metals Analytical Result Summary

PARAMETERS												
			Arsenic (mg/L)	Barium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	1.0	1.0	0.015	0.2	0.05	0.03	10	
	40 CFR 141.62 MCL		0.01	2.0	1.3	NE	0.015	NE	0.05	0.03	NE	
	NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.8	14	0.015	0.43	0.1	0.004	6	
	OW-11	08/20/19	200.7/200.8	0.0019	0.0068	0.004	<0.02	<0.0005	0.017	0.0047	0.2	0.0039
		09/18/18	200.7/200.8	0.0018	0.0075	<0.006	<0.02	<0.0005	0.018	0.0025	0.21	0.0098
		09/18/17	200.7/200.8	0.0026	0.0078	0.0044	<0.02	<0.0005	0.019	0.0042	NA	0.087
		09/09/16	200.7/200.8	0.0021	0.0087	<0.006	<0.02	<0.0005	0.015	0.0081	0.18	0.0091
		08/17/15	200.7/200.8	<0.005	0.0074	<0.006	<0.02	<0.0025	0.015	0.0083	0.21	<0.01
		09/12/14	200.7/200.8	0.0026	0.0080	<0.006	<0.02	<0.001	0.017	0.0020	0.25	<0.01
		09/16/13	200.7/200.8	0.0024	0.0084	<0.006	<0.02	<0.001	0.019	0.0024	0.23	0.021
		08/22/12	200.7/200.8	0.0021	0.0084	<0.006	<0.02	<0.005	0.012	0.0034	0.21	0.024
		10/26/11	200.7/200.8	0.002	0.0075	<0.006	<0.02	<0.005	0.016	0.0034	0.22	0.11
		07/28/10	6010B	<0.02	<0.02	<0.006	<0.02	<0.005	0.016	<0.05	0.215	<0.05
	OW-12	12/03/19	200.7/200.8	0.002	0.019	<0.006	0.026	0.00019	0.0093	0.00027	0.012	0.024
		09/19/18	200.7/200.8	0.002	0.021	<0.006	0.069	<0.005	0.004	<0.001	0.012	0.0081
		09/19/17	200.7/200.8	0.002	0.02	<0.006	0.049	<0.0005	0.0026	<0.005	NA	0.035
		09/08/16	200.7/200.8	0.002	0.02	<0.006	0.047	0.00021	0.0027	0.00094	0.013	0.004
		08/14/15	200.7/200.9	<0.006	1.02	<0.006	1.043	<0.0026	1.003	<0.006	0.012	<0.02
		09/12/14	200.7/200.8	0.002	0.021	<0.006	0.037	<0.01	<0.002	0.0011	0.012	0.023
		09/10/13	200.7/200.8	0.002	0.022	<0.006	0.048	<0.001	0.0021	<0.001	0.013	0.014
		08/22/12 <sup>1</sup>	200.7/200.8	0.0018	0.021	<0.006	0.053	<0.005	0.0033	<0.001	0.012	0.031

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

    a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) Method 200.7/200.8 analysis requested as part of the annual sampling



#### 8.4.4 OW-11, OW-12

##### Organic Compounds Analytical Result Summary

STANDARDS			PARAMETERS			
			Bis (2-ethylhexyl) phthalate (mg/L)	Acetone (mg/L)	1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	<b>0.005</b>
40 CFR 141.61 MCL			<b>0.006</b>	NE	NE	0.005
NMED TAP WATER (JUNE 2019)			0.0556	<b>14.06</b>	NE	0.0017
EPA RSL for Tap Water (NOV 2019)			0.056	14	<b>0.056</b>	0.0017
WELL ID	DATE SAMPLED	METHOD				
OW-11	08/20/19	8260B	NA	<0.01	0.00031	0.00038
	09/18/18	8260B	NA	<0.01	<0.001	<0.001
	08/17/15	8270C	<0.01	NA	NA	NA
	09/12/14	8270C	<0.01	NA	NA	NA
	09/16/13	8270C	<b>0.011</b>	NA	NA	NA
OW-12	12/03/19	8260B	NA	0.0022	<0.001	<0.001
	09/19/18	8260B	NA	0.0042	<0.001	<0.001

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.5 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-50	10/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.02
	08/16/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
	05/01/19	8260B	0.00019	<0.001	<0.001	<0.0015	0.018
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	11/07/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	09/17/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	09/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0059
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00024
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/15/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/04/13 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/13/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/11	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	10/25/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/01/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/09/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/27/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/01/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/16/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-52	10/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	08/16/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0022
	05/01/19	8260B	0.00019	<0.001	<0.001	<0.0015	0.0019
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0016
	11/07/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0015
	09/17/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
	09/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00046
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/15/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/04/13 <sup>1</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/13/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/13/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/25/11	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/01/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/09/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/27/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/01/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/16/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001



8.5 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-54	4th Qtr <sup>2</sup>	--					
	08/21/19	8260B	0.075	0.002	0.022	0.0034	1.7
	05/02/19	8260B	0.1	0.0034	0.031	<0.0075	1.8
	02/06/19	8260B	0.073	<0.002	0.02	<0.003	1.6
	11/07/18	8260B	0.052	0.0011	0.015	0.001	1.5
	08/28/18	8260B	0.052	0.0011	0.0083	<0.003	2
	05/08/18	8260B	0.058	0.00088	0.013	<0.0075	1.8
	02/22/18	8260B	0.05	0.00089	0.013	<0.0075	1.9
	12/06/17	8260B	0.055	0.00093	0.016	<0.0075	1.9
	09/11/17	8260B	0.14	0.0031	0.037	<0.0075	1.9
	06/21/17	8260B	0.17	0.0047	0.046	0.0038	2.3
	03/29/17	8260B	0.15	0.0047	0.042	0.0039	2.2
OW-55	3rd & 4th Qtr <sup>2</sup>	--					
	05/02/19	8260B	9	0.7	0.66	0.56	1.6
	02/06/19	8260B	8.6	0.56	0.66	0.48	1.4
	11/07/18	8260B	7	0.35	0.75	0.38	1.3
	08/28/18	8260B	7.9	0.33	0.65	<0.03	1.7
	05/08/18	8260B	7.5	0.4	0.59	0.33	1.7
	02/22/18	8260B	7.7	0.35	0.62	0.3	1.6
	12/06/17	8260B	7.1	0.36	0.56	0.29	1.7
	09/11/17	8260B	12	0.9	0.69	0.66	2
	06/21/17	8260B	13	0.9	0.72	0.76	2.4
	03/29/17	8260B	14	1.1	0.74	1.1	2
OW-56	10/15/19	8260B	0.0011	<0.001	<0.001	<0.0015	0.011
	08/21/19	8260B	0.0015	<0.001	<0.001	<0.0015	0.017
	05/02/19	8260B	0.00078	<0.001	<0.001	<0.0015	0.046
	02/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	11/07/18	8260B	0.0018	<0.001	<0.001	<0.0015	0.062
	08/28/18	8260B	0.0011	<0.001	<0.001	<0.0015	0.069
	05/08/18	8260B	0.00027	<0.001	<0.001	<0.0015	0.091
	02/22/18	8260B	0.00022	0.000067	<0.001	<0.0015	0.1
	12/06/17	8260B	0.0021	<0.001	<0.001	<0.0015	0.11
	09/11/17	8260B	0.0011	<0.001	<0.001	<0.0015	0.11
	06/21/17	8260B	0.00038	<0.001	<0.001	<0.0015	0.14
	03/29/17	8260B	0.00024	<0.001	<0.001	<0.0015	0.12
OW-57	11/05/19	8260B	11	0.076	0.54	0.13	0.092
	08/21/19	8260B	12	0.091	0.56	0.13	0.1
	05/16/19	8260B	11	0.089	0.54	0.11	0.095
	02/20/19	8260B	12	0.089	0.56	0.12	0.11
	11/29/18	8260B	11	0.061	0.51	0.11	1
	08/28/18	8260B	12	0.041	0.57	0.12	0.12
	05/08/18	8260B	12	0.03	0.56	0.11	0.12
	02/20/18	8260B	12	0.035	0.58	0.11	0.12
	12/06/17	8260B	11	0.024	0.52	0.083	0.098
	09/19/17	8260B	9.4	0.025	0.46	0.096	0.12
	06/21/17	8260B	14	0.03	0.54	0.11	0.15
	03/30/17	8260B	8.6	0.024	0.38	0.1	0.1



**8.5 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-58	11/18/19	8260B	33	0.085	12	0.16	2.1
	08/22/19	8260B	27	0.11	0.91	0.2	2.4
	06/05/19	8260B	34	0.62	1.2	0.13	2.3
	03/28/19	8260B	25	1	1.1	0.16	2.3
	11/18/19	8260B	33	0.085	12	0.16	2.1
	08/22/19	8260B	27	0.11	0.91	0.2	2.4
	06/05/19	8260B	34	0.62	1.2	0.13	2.3
	03/28/19	8260B	25	1	1.1	0.16	2.3
	11/29/18	8260B	35	0.11	1.2	0.19	2.5
	08/28/18	8260B	38	0.097	1.2	0.19	2.9
	05/08/18	8260B	38	0.084	1.2	0.18	2.8
	02/20/18	8260B	33	0.053	1.2	0.13	2.9
	12/06/17	8260B	32	0.04	1.2	0.12	2.9
	09/19/17	8260B	29	0.22	1.1	0.37	3.1
	06/21/17	8260B	38	0.16	1.2	0.36	3.7
	03/29/17	8260B	31	0.83	1.1	0.97	3
OW-58A	12/03/19	8260B	13	0.78	0.56	1.3	2.6
OW-63	11/18/19	8260B	8.6	0.063	1.1	0.26	0.032
	08/19/19	8260B	8.7	0.067	1.2	0.31	0.043
	05/15/19	8260B	8.3	0.059	1.1	0.30	0.032
	02/20/19	8260B	10	0.065	1.1	0.36	0.041
	12/03/18	8260B	8.8	0.07	1.1	0.43	0.033
	08/22/18	8260B	9	0.084	1.1	0.52	0.048
	04/29/18	8260B	8.9	0.12	1.4	0.68	0.037
OW-64 <sup>3</sup>	11/18/19	8260B	0.013	<0.002	0.039	0.05	<0.002
	08/19/19	8260B	0.063	0.011	0.11	0.17	<0.01
	05/15/19	8260B	0.068	0.011	0.19	0.44	<0.005
	08/22/18	8260B	0.18	0.55	0.4	1.5	<0.005
	04/29/18	8260B	0.59	1.6	0.36	3.2	<0.005

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

- 1) Beginning in 2013, sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates 9/24/12.
- 2) No samples collected - dedicated recovery system installed on well.
- 3) OW-64 - No samples collected in the 4th Quarter 2018 and 1st Quarter 2019 - SPH detected.



8.5.1 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS		PARAMETERS									
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)		
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1.6	250.0	1	10	600.0	NE	NE	NE	NE	
40 CFR 141.62 MCL		4.0	NE	1	10	NE	NE	NE	NE	NE	
NMED TAP WATER (JUNE 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE	NE	
EPA RSL for Tap Water (NOV 2019)		0.8	NE	2	32	NE	NE	NE	NE	NE	
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858		
WELL ID	DATE SAMPLED	METHOD									
OW-50	10/15/19	300.0/8015D									
	08/16/19	8015D/300.0	0.39	42	<1.0	<1.0	160	<1.0	<0.05	<5.0	
	05/01/19	300.0/8015D	0.48	40	<0.5	<0.5	160	<1.0	<0.05	<5.0	
	03/27/19	300.0/8015D	0.46	40	<0.5	<0.5	170	<1.0	<0.05	<5.0	
	11/07/18	300.0/8015D	0.41	40	<0.5	<0.5	170	<1.0	<0.05	<5.0	
	09/17/18	8015D	<0.5	40	<0.5	<0.5	170	<1.0	<0.05	<5.0	
	09/11/17	300.0/8015D	NA	NA	NA	NA	NA	<1.0	<0.05	<5.0	
	09/09/16	300.0/8015D	0.37	35	<1.0	<1.0	160	<1.0	<0.05	<5.0	
	08/11/15	300.0/8015D	0.36	31	<1.0	<1.0	150	<1.0	<0.05	<5.0	
	09/15/14	300.0/8015D	0.47	31	<1.0	<1.0	150	<1.1	<0.06	<5.1	
	09/04/13 <sup>1</sup>	300.0/8015D	0.45	30	<0.1	<0.1	150	<1.0	<0.05	<5.0	
	11/27/12	300.0/8015D	0.5	26	2	2	140	<1.0	<0.05	<5.0	
	08/23/12	300.0/8015D	0.54	28	<1.0	<1.0	160	<1.0	<0.05	<5.0	
	06/13/12	300.0/8015D	0.42	26	<1.0	<1.0	140	<1.0	<0.05	<5.0	
	03/22/12	300.0/8015D	0.54	27	<1.0	<1.0	140	<1.0	<0.05	<5.0	
	12/15/11	300.0/8015D	0.59	27	<0.1	0.15	150	<1.0	<0.05	<5.0	
	10/25/11	300.0/8015D	0.49	25	<1.0	<1.0	140	<1.0	<0.05	<5.0	
	06/20/11	300.0/8015D	0.49	26	NL	NL	140	<1.0	<0.05	<5.0	
	03/01/11	300.0/8015D	0.53	28	<0.1	<0.1	150	<1.0	<0.05	<5.0	
	11/09/10	300.0/8015D	0.49	26	<0.1	<0.1	140	<1.0	<0.05	<5.0	
	09/27/10	300.0/8015D	0.51	29	<0.1	<0.1	160	<1.0	<0.05	NA	
	06/01/10	300.0/8015D	0.41	26	<0.1	<0.1	140	<1.0	<0.05	NA	
	03/16/10	300.0/8015D	0.53	27	<0.1	<0.1	140	<1.0	<0.05	NA	
			29	<0.1	<0.1	150	<1.0	<0.05	NA		



8.5.1 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS		PARAMETERS									
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)		
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1.6	250.0	1	10	600.0	NE	NE	NE	NE	NE
40 CFR 141.62 MCL		4.0	NE	1	10	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)		0.8	NE	2	32	NE	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858		
WELL ID	DATE SAMPLED	METHOD									
OW-52	10/15/19	0.45	27	<1.0	<1.0	140	<1.0	<0.05	<5.0	<1.0	<5.0
	08/16/19	0.53	27	<0.5	<0.5	140	<1.0	<0.05	<5.0	<1.0	<5.0
	05/01/19	0.52	26	<0.5	<0.5	140	<1.0	<0.05	<5.0	<1.0	<5.0
	03/27/19	0.5	28	<0.5	<0.5	140	<1.0	<0.05	<5.0	<1.0	<5.0
	11/07/18	NA	NA	NA	NA	NA	<1.0	<0.05	<5.0	<1.0	<5.0
	09/17/18	NA	NA	NA	NA	NA	<1.0	<0.05	<5.0	<1.0	<5.0
	09/11/17	0.43	25	<1.0	<1.0	130	<1.0	<0.05	<5.0	<1.0	<5.0
	09/09/16	0.38	27	<1.0	<1.0	140	<1.0	<0.05	<5.0	<1.0	<5.0
	08/11/15	0.47	25	<1.0	<1.0	130	<1.1	<0.06	<5.1	<1.0	<5.1
	09/15/14	0.5	27	<0.1	<0.1	130	<1.0	<0.05	<5.0	<1.0	<5.0
	09/04/13 <sup>1</sup>	0.5	27	4.6	4.6	140	<1.0	<0.05	<5.0	<1.0	<5.0
	11/27/12	0.64	28	<1.0	<1.0	140	<1.0	<0.05	<5.0	<1.0	<5.0
	08/23/12	0.49	25	<1.0	<1.0	120	<1.0	<0.05	<5.0	<1.0	<5.0
	06/13/12	0.58	27	<1.0	<1.0	140	<1.0	<0.05	<5.0	<1.0	<5.0
	03/22/12	0.56	26	<0.1	<0.1	130	<1.0	<0.05	<5.0	<1.0	<5.0
	12/13/11	<0.5	27	<1.0	<1.0	130	<1.0	<0.05	<5.0	<1.0	<5.0
	10/25/11	0.4	20	1.3	1.3	100	<1.0	<0.05	<5.0	<1.0	<5.0
	06/20/11	0.56	24	<0.1	<0.1	140	<1.0	<0.05	<5.0	<1.0	<5.0
	03/01/11	0.57	25	<0.1	<0.1	130	<1.0	<0.05	<5.0	<1.0	<5.0
	11/09/10	0.54	32	<0.1	<0.1	140	<1.0	<0.05	NA	<1.0	NA
	09/27/10	0.52	27	<0.1	<0.1	140	<1.0	<0.05	NA	<1.0	NA
	06/01/10	0.52	28	<0.1	<0.1	140	<1.0	<0.05	NA	<1.0	NA
	03/16/10	0.56	31	<0.1	<0.1	150	<1.0	<0.05	NA	<1.0	NA



## General Chemistry and DRO/GRO/MRO Analytical Result Summary

## PARAMETERS



8.5.1 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

			PARAMETERS							
STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1	10	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD								
OW-56	10/15/19	8015D/300.0	<0.5	550	<1.0	<1.0	20	0.74	0.38	<5.0
	08/21/19	8015D/300.0	<0.5	660	<0.5	<0.5	21	0.53	0.25	<5.0
	05/02/19	8015D/300.0	0.31	710	<1.0	<1.0	22	<1.0	0.22	<5.0
	02/09/19	8015D/300.0	<0.5	640	<0.5	<0.5	21	<1.0	0.015	<5.0
	11/07/18	8015D/300.0	<0.5	640	<0.5	0.069	18	<1.0	0.31	<5.0
	08/28/18	8015D/300.0	<0.5	620	<1.0	<1.0	21	0.68	0.59	<5.0
	05/08/18	8015D/300.0	<0.5	590	<0.5	<0.5	20	<1.0	0.1	<5.0
	02/22/18	8015D/300.0	0.32	620	<0.5	<0.5	17	<1.0	0.13	<5.0
	12/06/17	8015D/300.0	0.27	590	0.22		18	0.83	1	<5.0
	09/11/17	8015D/300.0	<0.5	580	<1		20	0.51	0.36	<5.0
	06/21/17	8015D/300.0	<0.5	650	0.13		23	0.84	0.15	<5.0
	03/29/17	8015D/300.0	0.1	630	<1		24	0.52	0.15	<5.0
	11/05/19	8015D/300.0	0.17	140	<0.5	<0.5	0.64	3.6	28	<2.5
	08/21/19	8015D/300.0	0.11	140	<0.5	<0.5	<2.5	8.4	26	<5.0
	05/16/19	8015D/300.0	<0.5	140	<0.5	<0.5	1.1	7.8	19	<5.0
	02/20/19	8015D/300.0	<0.5	150	<0.5	<0.5	2.5	6.8	25	<5.0
OW-57	11/29/18	8015D/300.0	<0.5	160	<0.5	<0.5	0.77	8.6	21	<5.0
	08/28/18	8015D/300.0	<0.5	160	<1.0	<1.0	1.2	7.5	29	<5.0
	05/08/18	8015D/300.0	<0.5	140	<0.5	0.23	1.5	8	27	<5.0
	02/20/18	8015D/300.0	<0.5	150	<1.0	<1.0	1.2	8.8	28	<5.0
	12/06/17	8015D/300.0	<0.5	150	0.17		1.7	8.5	30	<5.0
	09/19/17	8015D/300.0	<0.5	150	<0.5		1.8	9.6	28	<5.0
	06/21/17	8015D/300.0	<0.5	170	<1		2.3	8.3	30	<5.0
	03/30/17	8015D/300.0	0.27	160	0.064		4.1	5.8	26	<5.0
	11/18/19	8015D/300.0	0.5	140	<0.5	<0.5	<2.5	2.9	75	<2.5
	08/22/19	8015D/300.0	0.28	140	0.12	<0.5	1.7	9.2	64	<5.0
	06/05/19	8015D/300.0	<0.5	190	<0.5	<0.5	<2.5	7.7	68	<5.0
OW-58	11/18/19	8015D/300.0	0.5	140	<0.5	<0.5	<2.5	2.9	75	<2.5
	08/22/19	8015D/300.0	0.28	140	0.12	<0.5	1.7	9.2	64	<5.0
	06/05/19	8015D/300.0	<0.5	190	<0.5	<0.5	<2.5	7.7	68	<5.0



8.5.1 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

PARAMETERS										
STANDARDS		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1.6	250.0	1	10	600.0	NE	NE	NE	NE
40 CFR 141.62 MCL		4.0	NE	1	10	NE	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)		0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858	
WELL ID	DATE SAMPLED	METHOD								
	03/28/19	8015D/300.0	<0.5	150	<1.0	<1.0	<2.5	7.4	57	<5.0
	11/29/18	8015D/300.0	<0.5	160	<0.5	<0.5	<2.5	6.3	69	<5.0
	08/28/18	8015D/300.0	<0.5	160	<0.5	0.07	<2.5	5.6	92	<5.0
	05/08/18	8015D/300.0	<0.5	150	<0.5	0.21	<2.5	5.7	72	<5.0
	02/20/18	8015D/300.0	<0.5	140	<1.0	<1.0	0.53	5.7	77	<5.0
	12/06/17	8015D/300.0	<0.5	140	0.27		<2.5	6.2	83	<5.0
	09/19/17	8015D/300.0	<0.5	130	<0.5		0.78	8.3	85	<5.0
	06/21/17	8015D/300.0	<0.5	150	<1		0.96	7.9	80	<5.0
OW-58A	03/29/17	8015D/300.0	<0.5	150	<1		<2.5	9.2	64	<5.0
	12/03/19	8015D/300.0	0.13	190	<0.5	<0.5	22	1.7	38	<2.5
OW-63	11/18/19	8015D/300.0	0.45	96	<0.5	<0.5	<2.5	2.2	31	<2.5
	08/19/19	8015D/300.0	0.47	85	<0.5	<0.5	<2.5	6.2	27	<5.0
	05/15/19	8015D/300.0	0.39	92	<0.5	<0.5	0.48	6	24	<5.0
	02/20/19	8015D/300.0	0.42	99	<0.5	<0.5	0.40	6	28	<5.0
	12/03/18	8015D/300.0	<0.5	96	<0.5	<0.5	<2.5	6.1	26	<5.0
	08/22/18	8015D/300.0	0.39	0.88	<0.5	<0.5	<2.5	5.9	35	<5.0
	04/29/18	8015D/300.0	<0.5	94	<1.0	<1.0	<2.5	5.6	29	<5.0
	11/18/19	8015D/300.0	4.2	93	<0.5	<0.5	72	<0.4	0.83	<2.5
OW-64 <sup>3</sup>	08/19/19	8015D/300.0	4.8	41	<0.5	<0.5	25	0.59	2.5	<5.0
	05/15/19	8015D/300.0	4.3	55	0.89	0.42	110	0.72	5.7	<5.0
	08/22/18	8015D/300.0	4.4	20	<0.5	<0.5	4.3	1.3	14	<5.0
	04/29/18	8015D/300.0	3.7	62	<1.0	<1.0	40	2.8	17	<5.0



**8.5.1 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64**  
**General Chemistry and DRO/GRO/MRO Analytical Result Summary**

		PARAMETERS							
STANDARDS		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL		4.0	NE	1	10	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)		0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

**NOTES**

- 1) Sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates, 9/24/12.
- 2) No samples collected - dedicated recovery system installed on well.
- 3) OW-64 - No samples collected in the 4th Quarter 2018 and 1st Quarter 2019 - SPH detected.



8.5.2 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Total Metals Analytical Result Summary

STANDARDS		PARAMETERS														
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10		
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE		
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96		
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6		
WELL ID	DATE SAMPLED	METHOD														
OW-50	10/15/19	200.7/200.8	0.0026	0.054	<0.002	<0.006	<0.006	0.049	<0.0005	0.11	<0.001	<0.005	<0.0002	NA	<0.01	
	08/16/19	200.7/200.8	0.0023	0.051	<0.002	<0.006	<0.006	0.049	0.000062	0.11	<0.001	<0.005	0.000083	0.012	0.0061	
	05/01/19	200.7/200.8	0.0019	0.066	<0.002	0.0022	<0.006	0.64	0.00055	0.12	<0.001	<0.005	<0.0002	0.012	<0.01	
	03/27/19	200.7/200.8	0.0019	0.064	<0.002	0.0022	<0.006	0.48	0.00031	0.12	<0.001	<0.005	0.00011	0.011	<0.01	
	11/07/18	200.7/200.8	0.0023	0.069	<0.002	<0.006	<0.006	0.68	0.00037	0.12	<0.001	<0.005	0.00009	0.011	<0.01	
	09/17/18	200.7/200.8	0.0022	0.069	<0.002	<0.006	<0.006	0.46	0.00079	0.12	<0.001	<0.005	0.00009	0.011	0.0055	
	09/11/17	200.7/200.8	0.0021	0.11	<0.002	0.0029	<0.006	1.7	0.0015	0.13	0.0014	<0.005	<0.0002	0.012	0.0068	
	09/09/16	200.7/200.8	0.0021	0.087	<0.002	<0.006	<0.006	0.68	0.00087	0.12	0.0015	<0.005	0.000096	0.01	0.0027	
	08/11/15	200.7/200.9	0.0019	0.14	<0.002	<0.006	<0.006	0.68	0.0024	0.14	<0.001	<0.005	<0.0002	0.011	0.017	
	09/15/14	200.7/200.8	0.0019	0.075	<0.002	<0.006	<0.006	0.18	<0.001	0.11	0.001	<0.005	<0.0002	0.01	<0.01	
	09/04/13	200.7/200.8	0.0018	0.058	<0.002	<0.006	<0.006	0.6	0.0021	0.11	<0.001	<0.005	<0.0002	0.0084	0.013	
	11/27/12	200.7/200.8	<0.0025	0.12	<0.002	<0.006	<0.006	1.3	<0.005	0.12	<0.0025	<0.005	<0.0002	0.0096	<0.01	
	08/23/12	200.7/200.8	<0.0025	0.043	<0.002	<0.006	0.0086	0.071	<0.005	0.058	<0.0025	<0.005	<0.0002	0.008	0.011	
	06/13/12	200.7/200.8	<0.0025	0.081	<0.002	<0.006	<0.006	0.89	<0.005	0.1	<0.0025	<0.005	<0.0002	0.0074	<0.01	
	03/22/12	200.7/200.8	<0.0025	0.029	<0.002	<0.006	<0.006	0.31	<0.005	0.035	<0.0025	<0.005	<0.0002	0.011	<0.01	
	12/15/11	200.7/200.8	<0.0025	0.07	<0.002	<0.006	<0.006	0.51	<0.005	0.095	<0.0025	<0.005	<0.0002	0.0087	<0.01	
	10/25/11	200.7/200.8	<0.0025	0.041	<0.002	<0.006	<0.006	0.022	<0.005	0.082	<0.0025	<0.005	<0.002	0.0072	<0.01	
	06/20/11	200.7/200.8	<0.0025	0.046	<0.002	<0.006	<0.006	0.16	<0.005	0.085	<0.0025	<0.005	<0.0002	0.0071	<0.01	
	03/01/11	200.7/200.8	0.003	0.045	<0.002	<0.006	<0.006	0.24	<0.005	0.086	<0.05	<0.005	<0.0002	0.0072	<0.01	
	11/09/10	200.7/200.8	0.0031	0.038	<0.002	<0.006	<0.006	<0.02	<0.005	0.079	0.0055	<0.005	<0.0002	NA	0.02	
	09/27/10	6010B	<0.02	0.041	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	0.006	<0.02	
	06/01/10	6010B	<0.02	0.042	<0.002	<0.006	NA	NA	<0.005	NA	<0.05	<0.005	<0.0002	NA	<0.02	
	03/16/10	6010B	<0.02	0.038	<0.002	<0.006	<0.006	<0.05	<0.005	0.079	<0.05	<0.005	<0.0002	0.00626	<0.02	











8.5.2 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Total Metals Analytical Result Summary

PARAMETERS															
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD													
OW-57	11/05/19	200.7/200.8	0.0047	4.7	<0.002	0.0028	<0.006	11	0.008	4.1	0.002	0.0018	<0.0002	0.00086	0.012
	08/21/19	200.7/200.8	0.0051	4.4	<0.002	0.005	0.0082	10	0.007	3.8	0.003	0.0015	<0.0002	0.00092	<0.05
	05/16/19	200.7/200.8	0.0035	3.9	<0.002	<0.006	<0.006	4.9	0.0025	2.6	0.00061	0.0015	<0.0002	0.00051	<0.01
	02/20/19	200.7/200.8	0.0045	4.1	<0.002	<0.006	<0.006	5.3	0.0015	2.4	<0.001	0.0024	0.000048	0.00044	<0.01
	11/29/18	200.7/200.8	0.0051	4.7	<0.002	<0.006	<0.006	6.9	0.00088	2.6	<0.001	0.0035	<0.0002	NA	0.0033
	08/28/18	200.7/200.8	0.0059	3.9	<0.002	<0.006	<0.006	6.9	0.0017	2.5	<0.001	0.0031	0.000068	0.00056	0.0073
	05/08/18	200.7/200.8	<0.005	4.2	<0.002	<0.006	<0.006	6	<0.0025	2.6	<0.005	<0.005	0.000044	0.00065	0.0046
	02/20/18	200.7/200.8	<0.01	3.7	<0.002	<0.006	<0.006	5.3	0.0016	2.5	<0.01	0.0021	0.000081	0.00069	<0.01
	12/06/17	200.7/200.8	0.006	3.7	<0.002	<0.006	<0.006	4.2	0.0012	2.3	<0.01	0.0021	<0.0002	0.00089	0.0042
	09/19/17	200.7/200.8	0.011	3.9	<0.002	0.0038	0.0032	8.6	0.0046	2.9	0.019	<0.005	<0.0002	NA	0.016
	06/21/17	200.7/200.8	0.0083	3.3	<0.002	0.0017	0.0053	4.5	0.0039	2.4	0.014	<0.005	<0.0002	0.0026	0.0082
	03/30/17	200.7/200.8	0.01	2.4	<0.002	0.0061	0.0069	6.3	0.0092	2.5	<0.02	<0.005	0.000062	0.0042	0.014
OW-58	11/18/19	200.7/200.8	0.0033	4.5	<0.002	<0.006	<0.006	9.9	0.0016	2.1	<0.001	<0.0005	<0.0002	0.00037	<0.01
	08/22/19	200.7/200.8	0.0034	4.4	<0.002	<0.006	<0.006	11	0.0027	2.1	<0.001	0.0016	0.00011	0.00042	0.015
	06/05/19	200.7/200.8	0.0028	4.3	<0.002	<0.006	<0.006	9.8	0.0015	2.1	<0.001	0.0015	<0.0002	0.0003	0.0062
	03/28/19	200.7/200.8	0.003	4.3	<0.002	<0.006	<0.006	8.8	<0.005	1.9	<0.001	<0.005	0.000061	0.00017	<0.01
	11/29/18	200.7/200.8	0.0036	4.8	<0.002	0.0061	0.0047	10	0.0017	2.3	<0.001	0.004	<0.0002	NA	0.0054
	08/28/18	200.7/200.8	0.0036	4	<0.002	<0.006	<0.006	8	<0.0005	1.9	<0.001	0.0027	0.000069	0.00017	<0.01
	05/08/18	200.7/200.8	0.0038	4.3	<0.002	<0.006	<0.006	8.1	<0.0005	2.1	<0.005	<0.005	0.000043	0.00021	<0.01
	02/20/18	200.7/200.8	0.0043	4.3	<0.002	0.0022	<0.006	11	0.0042	2.3	<0.0	0.0014	<0.0002	0.00061	0.012
	12/06/17	200.7/200.8	0.0059	4.7	<0.002	0.0061	0.0047	15	0.0095	2.4	0.0058	<0.005	<0.0002	0.001	0.017
	09/19/17	200.7/200.8	0.0096	5	<0.002	0.013	0.0092	19	0.015	2.8	0.014	<0.005	<0.0002	NA	0.035
	06/21/17	200.7/200.8	0.01	5.9	<0.002	0.02	0.019	29	0.034	3.8	0.012	<0.005	<0.0002	0.0035	0.049
	03/29/17	200.7/200.8	0.0087	5.7	<0.002	0.015	0.0066	24	0.024	3.4	0.012	<0.005	0.000042	0.0027	0.037
OW-58A	12/03/19	200.7/200.8	0.0045	0.95	<0.002	0.0023	NA	9.6	0.0063	1.4	<0.001	<0.005	<0.0002	NA	0.01



8.5.2 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Total Metals Analytical Result Summary

STANDARDS		PARAMETERS													
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10	
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE	
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6	
WELL ID	DATE SAMPLED	METHOD													
OW-63	11/18/19	200.7/200.8	4.4	<0.002	<0.006	<0.006	6.2	0.00024	1	<0.001	<0.0005	<0.0008	0.00013	<0.01	
	08/19/19	200.7/200.8	4.1	<0.002	<0.006	<0.006	6.1	0.00027	1.1	<0.001	<0.005	<0.0002	<0.0005	<0.01	
	05/15/19	200.7/200.8	4.1	<0.002	<0.006	<0.006	6.2	0.00077	1.1	<0.001	<0.005	0.000041	0.0001	<0.01	
	02/20/19	200.7/200.8	4	<0.002	<0.006	<0.006	5.7	0.00018	1.2	<0.001	0.0015	0.000048	0.00044	<0.01	
	12/03/18	200.7/200.8	3.7	<0.002	<0.006	<0.006	5.8	0.00053	1.2	<0.001	0.0017	0.00015	NA	0.0056	
	08/22/18	200.7/200.8	3.8	<0.002	<0.006	<0.006	5.9	0.00078	1.6	<0.001	0.002	0.000047	0.00037	0.0064	
	04/29/18	200.7/200.8	4	<0.002	<0.006	<0.006	5.8	<0.0005	1	<0.001	<0.005	NA	<0.0005	<0.01	
	11/18/19	200.7/200.8	0.0037	<0.002	0.0031	<0.006	1.1	0.0011	0.36	<0.001	<0.0005	<0.0002	0.019	<0.01	
OW-64 <sup>3</sup>	08/19/19	200.7/200.8	0.0046	<0.002	0.012	<0.006	3.1	0.0029	0.47	0.00053	<0.005	<0.0002	0.013	0.009	
	05/15/19	200.7/200.8	0.004	<0.002	0.0033	<0.006	0.44	0.001	0.53	0.00078	<0.005	<0.0002	0.016	<0.01	
	08/22/18	200.7/200.8	0.0067	<0.002	0.0033	0.018	2.6	0.0022	0.46	<0.001	<0.005	0.000049	<0.0005	0.0089	
	04/29/18	200.7/200.8	0.011	<0.002	0.02	0.032	13	0.015	1	<0.001	<0.005	NA	0.031	0.011	

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

1) Sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates, 9/24/12.

2) No samples collected - dedicated recovery system installed on well.

3) OW-64 - No samples collected in the 4th Quarter 2018 and 1st Quarter 2019 - SPH detected.



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
Dissolved Metals Analytical Result Summary

PARAMETERS															
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)			
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)														
	40 CFR 141.62 MCL														
	NMED TAP WATER (JUNE 2019)														
	EPA RSL for Tap Water (NOV 2019)														
	WELL ID	DATE SAMPLED	METHOD												
	OW-50	10/15/19	200.7/200.8	0.0019	0.052	<0.002	<0.006	0.0013	<0.02	<0.0005	0.12	<0.001	<0.005	NA	0.023
		08/16/19	200.7/200.8	0.0021	0.051	<0.002	<0.006	0.0017	<0.02	<0.0005	0.11	<0.001	<0.005	0.012	0.011
		05/01/19	200.7/200.8	0.0018	0.051	<0.002	<0.006	<0.006	0.017	<0.0005	0.11	<0.001	<0.005	0.012	0.056
		03/27/19	200.7/200.8	0.0019	0.054	<0.002	<0.006	<0.006	0.0089	<0.0005	0.12	<0.001	<0.005	0.011	0.024
		11/07/18	200.7/200.8	0.0018	0.05	<0.002	<0.006	<0.006	<0.02	<0.0005	0.1	<0.001	<0.005	0.012	0.015
		09/17/18	200.7/200.8	0.0019	0.052	<0.002	<0.006	<0.006	0.037	<0.0005	0.11	<0.001	<0.005	0.01	0.0068
		09/11/17	200.7/200.8	0.0024	0.053	<0.002	<0.006	<0.006	0.031	<0.0005	0.11	0.0026	<0.005	0.012	0.079
		09/09/16	200.7/200.8	0.0023	0.055	<0.002	<0.006	<0.006	0.68	<0.0005	0.12	0.0014	<0.005	0.012	0.0027
		08/11/15	200.7/200.9	<0.006	1.048	<0.003	<0.006	<0.006	<0.02	<0.0025	1.089	<0.005	<0.005	0.01	<0.02
		09/15/14	200.7/200.8	0.0024	0.047	<0.002	<0.006	<0.006	<0.02	<0.001	0.091	0.0017	<0.005	0.0098	<0.01
		09/04/13	200.7/200.8	<0.005	0.042	<0.002	<0.006	<0.006	<0.02	<0.005	0.1	<0.005	<0.005	<0.01	<0.01
		11/27/12	200.7/200.8	0.0019	0.052	<0.002	<0.006	<0.006	0.41	<0.005	0.093	<0.001	<0.005	0.0093	0.012
		08/23/12	200.7/200.8	0.0019	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.051	<0.001	<0.005	0.0077	0.014
		06/13/12	200.7/200.8	0.0019	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.081	<0.001	<0.005	0.0085	0.012
		03/22/12	200.7/200.8	0.0019	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.001	<0.005	0.0076	0.039
		12/15/11	200.7/200.8	0.0018	0.04	<0.002	<0.006	<0.006	<0.1	<0.005	0.079	<0.001	<0.005	0.0081	<0.01
		10/25/11	200.7/200.8	0.0019	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.001	<0.005	0.0074	<0.01
		06/20/11	200.7/200.8	0.0022	NA	<0.002	<0.006	NA	<0.02	<0.005	0.088	0.0013	<0.005	0.0075	0.021
03/01/11		200.7/200.8	0.0026	0.039	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.05	<0.005	0.0069	0.081	
11/09/10		200.7/200.8	NA	0.037	<0.002	<0.006	<0.006	<0.02	<0.005	0.078	0.0014	<0.005	NA	<0.01	
09/27/10		6010B	<0.02	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.081	<0.05	<0.005	0.006	0.064	
06/01/10		6010B	<0.02	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.083	<0.05	<0.005	NA	<0.05	
03/16/10		6010B	<0.02	0.036	<0.002	<0.006	<0.006	<0.02	<0.005	0.076	<0.05	<0.005	0.00641	<0.05	



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
40 CFR 141.62 MCL		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
WELL ID	DATE SAMPLED	METHOD											
OW-52	10/15/19	200.7/200.8	0.00069	<0.002	<0.006	0.002	0.044	<0.0005	0.024	<0.001	<0.005	NA	0.012
	08/16/19	200.7/200.8	0.00067	<0.002	<0.006	0.0019	0.044	<0.0005	0.024	<0.001	<0.005	0.0098	0.019
	05/01/19	200.7/200.8	0.00062	0.029	<0.002	<0.006	0.0016	0.06	<0.0005	0.026	<0.001	<0.005	0.11
	03/27/19	200.7/200.8	0.00057	0.03	<0.002	<0.006	<0.006	0.049	<0.0005	0.024	<0.001	<0.005	0.0094
	11/07/18	200.7/200.8	0.00059	0.03	<0.002	<0.006	<0.006	0.048	<0.0005	0.024	<0.001	<0.005	0.01
	09/17/18	200.7/200.8	0.00062	0.031	<0.002	<0.006	<0.006	0.08	<0.0005	0.026	<0.001	<0.005	0.0086
	09/11/17	200.7/200.8	<0.005	0.029	<0.002	<0.006	<0.006	0.05	<0.0005	0.025	<0.005	0.011	0.063
	09/09/16	200.7/200.8	0.00086	0.028	<0.002	<0.006	<0.006	0.05	<0.0005	0.026	<0.005	<0.005	<0.01
	08/11/15	200.7/200.9	<0.006	1.027	<0.003	<0.006	<0.006	1.035	<0.0026	0.031	<0.005	0.011	<0.02
	09/15/14	200.7/200.8	<0.001	0.029	<0.002	<0.006	<0.006	0.051	<0.001	0.026	0.0012	<0.005	<0.01
	09/04/13	200.7/200.8	<0.005	0.026	<0.002	<0.006	<0.006	0.063	<0.005	0.038	<0.005	0.011	<0.01
	11/27/12	200.7/200.8	<0.001	0.027	<0.002	<0.006	<0.006	0.066	<0.005	0.025	<0.001	<0.005	0.011
	08/23/12	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.005	0.0054	<0.001	<0.005	0.0072
	06/13/12	200.7/200.8	<0.001	0.026	<0.002	<0.006	<0.006	0.076	<0.005	0.023	<0.001	<0.005	0.011
	03/22/12	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.071	<0.005	0.03	<0.001	<0.005	0.01
	12/13/11	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.08	<0.005	0.025	<0.001	<0.005	0.01
	10/25/11	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.12	<0.005	0.031	<0.001	<0.005	0.011
	06/20/11	200.7/200.8	<0.001	NA	<0.002	<0.006	NA	0.12	<0.005	0.037	0.0015	<0.005	0.013
	03/01/11	200.7/200.8	<0.001	0.36	<0.02	<0.006	<0.006	0.064	<0.005	0.68	<0.05	<0.005	0.0071
	11/09/10	200.7/200.8	NA	0.025	<0.02	<0.006	<0.006	0.048	<0.005	0.027	NA	<0.005	NA
	09/27/10	6010B	<0.02	0.026	<0.002	<0.006	<0.006	0.058	<0.005	0.031	<0.05	<0.005	0.009
	06/01/10	6010B	<0.02	0.026	<0.002	<0.006	<0.006	0.058	<0.005	0.032	<0.05	<0.005	0.00926
	03/16/10	6010B	<0.02	0.023	<0.002	<0.006	<0.006	0.034	<0.005	0.028	<0.05	<0.005	0.0092



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS													
Arsenic (mg/L)		Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	0.015	NE	0.05	NE	0.03	NE	
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	14	0.015	0.43	0.1	0.094	0.004	6	
WELL ID	DATE SAMPLED	METHOD											
OW-54	4th Qtr <sup>2</sup>	---											
	08/21/19	200.7/200.8	0.0028	0.15	<0.002	<0.006	0.0039	0.48	0.0058	1.4	<0.001	<0.005	0.0066
	05/02/19	200.7/200.8	0.0031	0.15	<0.002	<0.006	0.005	0.67	0.0054	1.5	<0.005	<0.005	0.048
	02/06/19	200.7/200.8	0.0039	0.16	<0.002	<0.006	<0.006	0.47	0.0082	1.4	<0.001	<0.005	0.026
	11/07/18	200.7/200.8	0.0026	0.15	<0.002	<0.006	<0.006	0.32	0.01	1.5	<0.001	<0.005	0.025
	08/28/18	200.7/200.8	0.0045	0.15	<0.002	<0.006	0.011	0.3	0.0097	1.3	<0.001	0.0023	0.01
	05/08/18	200.7/200.8	0.0024	0.15	<0.002	<0.006	0.0075	0.33	0.0065	1.4	<0.005	<0.005	0.0084
	02/22/18	200.7/200.8	<0.2	0.14	<<0.01	<0.006	0.022	0.24	0.016	1.3	<0.2	<0.025	0.0084
	12/06/17	200.7/200.8	0.0057	0.15	<0.002	<0.006	0.0077	0.31	0.0083	1.4	<0.05	<0.005	0.011
	09/11/17	200.7/200.8	0.0074	0.2	<0.002	<0.006	<0.006	0.75	0.0068	1.5	0.015	<0.005	0.025
	06/21/17	200.7/200.8	0.0078	0.14	<0.002	<0.006	0.0055	0.63	0.0049	1.2	0.014	<0.005	0.0062
	03/29/17	200.7/200.8	0.0041	0.22	<0.002	<0.006	0.012	0.72	0.0081	1.5	<0.02	<0.005	0.016
OW-55	3rd and 4th Qtr <sup>2</sup>	---											
	05/02/19	200.7/200.8	0.0047	0.57	<0.002	<0.006	<0.006	4.4	0.00049	3.8	0.001	0.0015	0.033
	02/06/19	200.7/200.8	0.0053	0.54	<0.002	<0.006	<0.006	4	<0.0005	3.7	<0.001	<0.005	0.021
	11/07/18	200.7/200.8	0.0044	0.5	<0.002	<0.006	<0.006	3.4	<0.0005	3.5	<0.001	<0.005	0.015
	08/28/18	200.7/200.8	0.0044	0.51	<0.002	<0.006	<0.006	3.4	<0.0005	3.6	<0.001	0.003	0.013
	05/08/18	200.7/200.8	0.0043	0.52	<0.002	<0.006	<0.006	3.7	<0.0025	4	<0.005	<0.005	0.0065
	02/22/18	200.7/200.8	<0.2	0.46	<0.01	<0.006	<0.03	3.3	<0.0025	3.7	<0.2	<0.025	0.01
	12/06/17	200.7/200.8	0.0051	0.48	<0.002	<0.006	<0.006	3.7	<0.0005	3.9	0.0047	0.0019	0.013
	09/11/17	200.7/200.8	0.0075	0.67	<0.002	<0.006	<0.006	5.3	0.0014	3.9	0.0086	<0.005	0.022
	06/21/17	200.7/200.8	0.006	0.56	<0.002	<0.006	<0.006	4.2	0.00029	3.7	0.0056	<0.005	0.0082
	03/29/17	200.7/200.8	0.0058	0.63	<0.002	<0.006	<0.006	5	0.00091	4.2	0.0047	<0.005	0.0083



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL for Tap Water (NOV 2019)														
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
OW-56	10/15/19	200.7/200.8	0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
	08/21/19	200.7/200.8	0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
	05/02/19	200.7/200.8	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
	02/06/19	200.7/200.8	0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
	11/07/18	200.7/200.8	0.0023	0.32	<0.002	<0.006	0.0086	0.016	0.000098	0.081	0.00034	0.0026	NA	0.022
	08/28/18	200.7/200.8	0.0019	0.36	<0.002	<0.006	0.0082	0.011	0.00012	0.068	0.00037	0.0015	0.015	0.0098
	05/08/18	200.7/200.8	0.0015	0.24	<0.002	<0.006	0.0065	0.041	<0.0025	0.064	<0.005	0.0019	0.016	0.046
	02/22/18	200.7/200.8	0.0015	0.24	<0.002	<0.06	0.0065	0.041	<0.0025	0.064	<0.005	0.0019	0.016	0.046
	12/06/17	200.7/200.8	0.0022	0.45	<0.002	<0.006	<0.006	0.13	0.00022	0.18	<0.001	<0.005	0.015	0.022
	09/11/17	200.7/200.8	0.0022	0.39	<0.002	<0.006	0.0061	0.6	0.00058	0.12	<0.001	0.0027	0.016	0.011
OW-57	06/21/17	200.7/200.8	0.0023	0.34	<0.002	<0.006	0.0083	<0.02	<0.0025	0.031	<0.005	<0.005	0.017	0.0075
	03/29/17	200.7/200.8	<0.2	0.38	<0.002	<0.03	0.0098	1	<0.0025	0.13	<0.2	0.0018	0.016	0.017
	11/05/19	200.7/200.8	0.0046	0.34	<0.002	<0.006	0.009	<0.02	0.00038	0.048	0.012	<0.005	0.021	0.012
	08/21/19	200.7/200.8	0.0066	0.36	<0.002	0.0017	0.0057	0.048	0.00023	0.09	0.013	<0.005	0.018	0.04
	05/16/19	200.7/200.8	0.0054	0.26	<0.002	0.0014	0.011	0.026	<0.0005	0.073	0.014	<0.005	0.021	0.063
	02/20/19	200.7/200.8	0.0035	0.3	<0.002	<0.006	0.0066	0.085	0.00041	0.1	<0.02	<0.005	0.022	0.039
	11/29/18	200.7/200.8	0.0029	4.0	<0.002	<0.006	<0.006	3.3	<0.0005	2.2	<0.001	0.0024	0.00019	0.022
	08/28/18	200.7/200.8	0.0037	3.8	<0.002	<0.006	0.0026	4.1	0.000071	2.2	<0.001	0.002	0.00026	0.0068
	05/08/18	200.7/200.8	0.0032	3.6	<0.002	<0.006	0.0041	2.5	<0.0005	2.1	0.00022	0.0024	0.00033	0.02
	02/20/18	200.7/200.8	0.004	3.2	<0.002	<0.006	0.0016	2.3	0.000069	2.1	<0.001	0.0018	0.00042	0.03
OW-57	12/06/17	200.7/200.8	0.004	3.6	<0.002	<0.006	<0.006	3.4	<0.0005	2.3	<0.001	<0.005	0.00089	0.018
	09/19/17	200.7/200.8	0.004	3.6	<0.002	<0.006	<0.006	3.3	<0.0005	2.1	<0.001	0.0028	0.00042	0.013
	06/21/17	200.7/200.8	<0.005	3.8	<0.002	<0.006	<0.006	2.8	<0.0025	2.2	<0.005	0.0019	<0.0025	0.0069
	03/30/17	200.7/200.8	0.0045	3.5	<0.002	<0.006	<0.006	2.6	<0.005	2.1	0.0047	0.0031	0.00062	0.0063
	11/05/19	200.7/200.8	0.0062	3.2	<0.002	<0.006	<0.006	2	<0.0005	2.1	0.0077	0.0019	0.00089	0.0091
	08/21/19	200.7/200.8	0.0077	3.4	<0.002	<0.006	<0.006	6.4	<0.0005	2.2	0.015	<0.005	NA	0.031
	05/02/19	200.7/200.8	0.0067	2.9	<0.002	<0.006	<0.006	1.3	0.00032	1.9	0.013	<0.005	0.0025	0.014
02/06/19	200.7/200.8	0.0084	1.4	<0.002	<0.006	<0.006	0.5	0.00053	0.69	<0.020	<0.005	0.0028	0.03	



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL for Tap Water (NOV 2019)														
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
OW-58	11/18/19	200.7/200.8	0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
	01		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
	08/22/19	200.7/200.8	0.0026	4.5	<0.002	<0.006	<0.006	8.7	<0.0005	2	0.00031	0.0016	0.00014	0.029
	06/05/19	200.7/200.8	0.0028	4.2	<0.002	<0.006	<0.006	8.4	0.0001	1.9	0.0003	0.0012	0.00025	0.0029
	03/28/19	200.7/200.8	0.0024	4.2	<0.002	<0.006	<0.006	7.9	<0.0005	2	0.00027	0.0011	0.00015	0.0029
	11/29/18	200.7/200.8	0.0029	4	<0.002	<0.006	<0.006	7.8	<0.0005	1.9	0.00022	<0.005	0.00016	0.029
	08/28/18	200.7/200.8	0.003	4	<0.002	<0.006	<0.006	7	<0.0005	2	<0.001	0.0021	0.00022	0.02
	05/08/18	200.7/200.8	0.0028	3.8	<0.002	<0.006	<0.006	7.4	<0.0005	1.9	<0.001	0.0026	0.00017	0.013
	02/20/18	200.7/200.8	0.0028	4.2	<0.002	<0.006	<0.006	7	<0.0025	2	<0.005	0.0019	<0.0025	0.0095
	12/06/17	200.7/200.8	0.0036	3.9	<0.002	<0.006	<0.0006	7.1	<0.0005	1.9	0.0049	0.0026	0.00022	0.0058
	09/19/17	200.7/200.8	0.0045	3.8	<0.002	<0.006	<0.006	7.1	<0.0005	1.9	0.0069	0.002	0.00022	0.0076
	06/21/17	200.7/200.8	0.007	4	<0.002	<0.006	<0.006	7.5	0.00017	1.9	0.015	<0.005	NA	0.018
	03/29/17	200.7/200.8	0.0059	3.5	<0.002	<0.006	<0.006	6.9	0.00033	1.7	0.01	<0.005	0.0004	0.013
			0.0035	4.1	<0.002	<0.006	<0.006	7.7	0.00043	1.9	<0.02	<0.005	0.00082	0.034
OW-58A	12/03/19	200.7/200.8	0.0044	0.94	<0.002	<0.006	NA	5.5	0.0016	1.3	0.0002	<0.005	NA	0.018
OW-63	11/18/19	200.7/200.8	0.0097	4.5	<0.002	<0.006	<0.006	5.7	<0.0005	1.1	<0.001	<0.005	0.00025	0.023
	08/19/19	200.7/200.8	0.01	4.1	<0.002	<0.006	0.002	6.1	<0.0005	1	<0.001	<0.005	<0.0005	0.0055
	05/15/19	200.7/200.8	0.01	3.9	<0.002	<0.006	<0.006	5.9	<0.0005	1	0.0002	0.0015	0.00013	0.014
	02/20/19	200.7/200.8	0.011	3.8	<0.002	<0.006	<0.006	5.2	<0.0005	1.1	<0.001	0.00095	0.0004	0.036
	12/03/18	200.7/200.8	0.011	3.7	<0.002	<0.006	<0.006	5.3	<0.0005	0.93	<0.001	<0.005	NA	0.031
	08/22/18	200.7/200.8	0.011	3.9	<0.002	<0.006	<0.006	5.8	<0.0005	1.2	<0.001	0.0022	0.0002	0.011
	04/29/18	200.7/200.8	0.012	4	<0.002	<0.006	<0.006	5.5	<0.0005	0.92	<0.001	<0.005	<0.0005	0.011
OW-64 <sup>3</sup>	11/18/19	200.7/200.8	0.0033	0.28	<0.002	<0.006	<0.006	0.067	0.000092	0.35	0.0003	<0.005	0.018	0.024
	08/19/19	200.7/200.8	0.0037	0.27	<0.002	<0.006	0.0033	0.076	0.000082	0.35	0.00036	<0.005	0.012	0.0073
	05/15/19	200.7/200.8	0.0041	0.34	<0.002	<0.006	0.0054	0.11	0.00026	0.48	0.00035	<0.005	0.016	0.027
	08/22/18	200.7/200.8	0.0068	0.33	<0.002	<0.006	<0.006	0.17	0.00019	0.34	<0.001	<0.005	0.012	0.011
	04/29/18	200.7/200.8	0.0089	0.35	<0.002	<0.006	0.009	0.93	0.0034	0.44	<0.001	<0.005	0.026	<0.01



8.5.3 OW-50, OW-52, OW-54, OW-55, OW-56, OW-57, OW-58, OW-63, OW-64  
Dissolved Metals Analytical Result Summary

STANDARDS		PARAMETERS											
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
WELL ID	DATE SAMPLED	METHOD											

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

- a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

- 1) Sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates, 9/24/12.
- 2) No samples collected - dedicated recovery system installed on well.
- 3) OW-64 - No samples collected in the 4th Quarter 2018 and 1st Quarter 2019 - SPH detected.























8.6 PW-2, PW-3, PW-4

BTEX, MTBE, General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS		PARAMETERS													
		Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	0.62	0.1	1	10	1.6	250.0	600.0	NE	NE	NE	
40 CFR 141.62 MCL		0.005	1	0.7	10	NE	1	10	4.0	NE	NE	NE	NE	NE	
NMED TAP WATER (Rev 2. JUN 2019)		0.00455	1.09	0.0149	0.193	0.143	1.97	31.60	1.18	NE	NE	NE	NE	NE	
EPA RSL for Tap Water (NOV 2019)		0.0046	1.1	0.0015	0.19	0.14	2	32	0.8	NE	NE	NE	NE	NE	
NMED SSG (MAR 2019)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858	
Well ID	DATE SAMPLED	METHOD													
PW-2	09/18/17	8260B/Anions													
	09/10/14	8260B/Anions													
	12/15/11 <sup>1</sup>	8260B/Anions													
	10/26/11	8260B/Anions													
	09/12/08	8260B/Anions													
PW-3	11/20/19	<0.001	<0.001	<0.001	<0.0015	<0.001	0.19	0.19	<0.5	6.8	340	NA	NA	NA	
	08/28/19	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	0.12							
	05/14/19	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	0.15							
	02/20/19	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.1	<0.1							
	11/20/18	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0							
	09/19/18	0.00062	<0.001	<0.001	0.00082	<0.001	<0.5	<0.5	32	710	<0.4	<0.05	<2.5		
	09/18/17	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	NA	NA	NA	NA	NA	NA	
	08/31/16	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	32	NA	NA	NA	NA	
	08/23/15	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	33	730	NA	NA	NA	
	09/10/14	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	34	720	NA	NA	NA	
	09/10/13	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	33	720	NA	NA	NA	
	08/24/12	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	34	770	NA	NA	NA	
	10/31/11	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	NA	NA	NA	NA	NA	
	09/23/10	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	31	750	<1.0	<0.05	<5.0	
	08/21/08	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	0.13	<0.2						
	01/01/08	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	<0.2	<0.2						



# 8.6 PW-2, PW-3, PW-4

## BTEX, MTBE, General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS		PARAMETERS													
		Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	0.62	0.1	1	10	1.6	250.0	600.0	NE	NE	NE	NE
40 CFR 141.62 MCL		0.005	1	0.7	10	NE	1	10	4.0	NE	NE	NE	NE	NE	NE
NMED TAP WATER (Rev 2. JUN 2019)		0.00455	1.09	0.0149	0.193	0.143	1.97	31.60	1.18	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)		0.0046	1.1	0.0015	0.19	0.14	2	32	0.8	NE	NE	NE	NE	NE	NE
NMED SSG (MAR 2019)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858	
Well ID	DATE SAMPLED	METHOD													
PW-4	11/20/19	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	0.17	0.24	7.5	390	<0.4	<0.05	<2.5	
	08/27/19	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	0.13	NA	NA	NA	NA	NA	NA	
	05/14/19	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	0.18	<0.5	7.8	410	NA	NA	NA	
	02/20/19	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	0.15	<0.5	8	410	NA	NA	NA	
	11/19/18	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	<0.5	<0.5	7.6	390	NA	NA	NA	
	09/19/18	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	<0.5	7.9	400	NA	NA	NA	
	03/01/18	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	0.17	<0.5	7.5	400	NA	NA	NA	
	09/18/17	<0.001	<0.001	<0.001	<0.0015	<0.001	0.18	0.18	<0.5	7.4	410	NA	NA	NA	
	03/30/17	<0.0005	<0.0005	<0.0005	<0.00075	<0.0005	NA	0.51	NA	NA	NA	NA	NA	NA	
	08/31/16	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	<1.0							
	06/10/16 <sup>2</sup>	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	NA	NA						
	09/10/13	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NA	0.19						
	07/28/10	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	0.14						
	09/12/08	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	<0.02						

## DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

## STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NMIED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

## NOTES

1) Re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.

2) Per NMED directive - sampling of PW-4 switched to semi-annual beginning in the second quarter of 2016.



# 8.6.1 PW-2, PW-3, PW-4

## Total Metals Analytical Result Summary

STANDARDS			PARAMETERS												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			0.01	2.0	0.005	0.05	1	1	0.015	0.2	0.05	0.002	0.2	0.03	10.0
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.2	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.000585	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.00146	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)			0.00052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.0015	0.004	6
Well ID	DATE SAMPLED	METHOD													
PW-2	09/18/17	200.7/200.8	0.0031	0.013	<0.002	<0.006	<0.006	0.042	<0.0005	0.0033	0.0011	<0.0002	<0.005	0.0023	0.0071
	09/10/14	200.7/200.8	0.0033	0.014	<0.002	<0.006	<0.006	0.05	<0.001	<0.002	0.0014	<0.0002	<0.01	0.0024	<0.01
	12/15/11 <sup>1</sup>	200.7/200.8	0.0055	0.12	<0.002	<0.006	<0.006	0.74	<0.005	0.011	<0.0025	<0.0002	<0.01	<0.0025	<0.01
	10/26/11 <sup>1</sup>	200.7/200.8	<0.0025	0.016	<0.002	<0.006	<0.006	0.29	<0.005	0.058	<0.0025	<0.0002	<0.01	<0.0025	<0.01
	09/12/08	6010B	<0.02	0.013	<0.002	<0.006	<0.006	0.07	<0.005	<0.002	<0.05	<0.0002	<0.01	0.0016	<0.05
PW-3	11/20/19	200.7/200.8	0.0039	0.01	<0.002	<0.006	<0.006	0.031	<0.0005	0.00056	0.00081	<0.0002	<0.01	0.0012	<0.01
	08/28/19	200.7/200.8	0.0039	0.01	<0.002	<0.006	<0.006	0.032	<0.0005	0.001	0.0011	0.00011	<0.005	0.0013	<0.01
	05/14/19	200.7/200.8	0.0037	0.0099	<0.002	<0.006	<0.006	0.019	<0.0005	0.00066	0.00077	<0.0002	<0.005	0.0013	<0.01
	02/20/19	200.7/200.8	0.0037	0.011	<0.002	<0.006	<0.006	0.035	<0.0005	0.0012	0.00079	<0.0002	<0.005	0.0014	<0.01
	11/20/18	200.7/200.8	0.0049	0.011	<0.002	<0.006	<0.006	0.031	<0.0005	0.0011	<0.001	<0.0002	<0.005	NA	0.0037
	09/19/18	200.7/200.8	0.0057	0.011	<0.002	<0.006	<0.006	0.05	0.00055	<0.002	<0.001	<0.0002	<0.005	0.0014	0.0057
	08/31/16	200.7/200.8	0.0041	0.011	<0.002	<0.006	<0.006	0.24	0.00025	0.0016	0.0017	NA	<0.01	0.0017	0.0072
	08/23/15	200.7/200.8	0.0035	0.01	<0.002	<0.006	<0.006	0.079	<0.0005	<0.002	0.0012	<0.0002	<0.01	0.0017	<0.01
	09/10/14	200.7/200.8	0.0039	0.011	<0.002	<0.006	<0.006	0.3	<0.001	0.0025	0.0019	<0.0002	<0.01	0.0016	0.01
	09/10/13	200.7/200.8	0.0038	0.011	<0.002	<0.006	<0.006	0.2	<0.001	0.0022	0.0011	<0.0002	<0.01	0.0015	0.014
	08/24/12	200.7/200.8	0.004	0.011	<0.002	<0.006	<0.006	0.24	<0.005	<0.002	<0.0025	<0.0002	0.0085	<0.0025	0.027
	10/31/11	200.7/200.8	0.0035	0.01	<0.002	<0.006	<0.006	0.09	<0.005	0.003	0.0012	<0.0002	<0.01	0.0014	0.023
	09/23/10	6010B	<0.02	<0.02	<0.002	<0.006	0.032	0.47	0.0074	0.0046	<0.05	<0.0002	<0.005	0.001	0.037
	08/21/08	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.05	<0.005	<0.0002	<0.25	<0.0002	<0.004	<0.00063	<0.05
	01/01/08	6010B	<0.02	0.014	<0.002	<0.006	<0.006	0.2	0.0056	0.015	<0.5	<0.0002	<0.01	<0.1	0.041
PW-4	11/20/19	200.7/200.8	0.0035	0.013	<0.002	<0.006	<0.006	0.13	<0.0005	0.0016	0.0013	<0.0002	<0.01	0.0013	0.036
	08/27/19	200.7/200.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	NA
	05/14/19	200.7/200.8	0.0031	0.013	<0.002	<0.006	<0.006	0.068	<0.0005	<0.002	0.00089	<0.0002	<0.005	0.0014	<0.01
	02/20/19	200.7/200.8	0.039	0.014	<0.002	<0.006	<0.006	0.18	<0.0005	0.00072	0.001	<0.0002	<0.005	0.0013	<0.01
	11/19/18	6010B	0.0038	0.013	<0.002	<0.006	<0.006	0.089	<0.0005	<0.002	<0.001	<0.0002	<0.005	0.0013	<0.01
	09/19/18	6010B	0.0045	0.014	<0.002	<0.006	<0.006	0.11	<0.0005	0.0015	<0.001	0.000046	<0.005	0.0014	0.0047
	03/01/18	200.7/200.8	0.0026	0.013	<0.002	<0.006	<0.006	0.47	<0.0005	0.01	0.0012	0.000048	<0.005	0.0015	<0.01
	09/18/17	6010B	0.0029	0.013	<0.002	<0.006	<0.006	0.087	<0.0005	<0.002	0.0012	<0.0002	<0.005	0.0016	<0.01
	03/30/17	6010B	0.0032	0.012	<0.002	<0.006	<0.006	0.15	<0.0005	0.00087	0.0013	0.000052	<0.005	0.0015	<0.01
	08/31/16	6010B	0.0037	0.014	<0.002	<0.006	<0.006	0.14	<0.005	0.0012	0.0016	NA	<0.01	0.0018	0.0036
	06/10/16	200.7/200.8	0.0036	0.014	<0.002	<0.006	<0.006	0.26	<0.0005	0.0025	0.0013	<0.0002	<0.01	0.0016	<0.01
	09/10/13	6010B	0.0029	0.014	<0.002	<0.006	<0.006	1.5	<0.001	0.014	0.0012	<0.0002	<0.01	0.0017	0.025
	07/28/10	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.23	<0.005	0.0044	<0.05	<0.0002	<0.01	0.0021	<0.02
	09/12/08	6010B	<0.02	0.013	<0.002	<0.006	<0.006	0.11	<0.005	0.005	<0.05	<0.0002	<0.01	0.0014	<0.02

### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

### NOTES

1) PW-2 was re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.



# 8.6.2 PW-2, PW-3, PW-4

## Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			0.01	2.0	0.005	0.05	1	1.0	0.015	0.2	0.05	0.03	10.0
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUN 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)			0.00052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
Well ID	DATE SAMPLED	METHOD											
PW-2	09/18/17	200.7/200.8	0.0031	0.014	<0.002	<0.006	<0.006	0.028	<0.0005	0.0012	0.0017	NA	0.041
	09/10/14	200.7/200.8	0.0031	0.012	<0.002	<0.006	<0.006	0.042	<0.001	<0.002	0.0014	0.0024	0.012
	12/15/11 <sup>1</sup>	200.7/200.8	0.0027	0.014	<0.002	<0.006	<0.006	0.23	<0.005	0.006	<0.001	0.0019	0.053
	10/26/11	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	0.06	<0.001	0.0022	0.045
PW-3	11/20/19	200.7/200.8	0.0034	0.01	<0.002	<0.006	<0.006	0.028	<0.0025	0.00078	0.0012	0.0013	0.055
	08/28/19	200.7/200.8	0.0037	0.0096	<0.002	<0.006	<0.006	0.028	<0.0005	0.001	0.0011	0.0013	0.015
	05/14/19	200.7/200.8	0.00358	0.0099	<0.002	<0.006	<0.006	0.019	<0.0025	0.00066	<0.005	0.0014	0.065
	02/20/19	200.7/200.8	0.037	0.0099	<0.002	<0.006	<0.006	0.033	<0.0005	0.0013	0.00089	0.0014	0.029
	11/20/18	200.7/200.8	0.0037	0.01	<0.002	<0.006	<0.006	0.028	<0.0005	0.0011	0.00076	NA	0.028
	09/19/18	200.7/200.8	0.0046	0.011	<0.002	<0.006	<0.006	0.039	<0.0005	0.00095	0.00084	0.0016	0.0074
	09/18/17	200.7/200.8	0.0038	0.011	<0.002	<0.006	<0.006	0.055	<0.0005	0.002	0.0022	NA	0.038
	08/31/16	200.7/200.8	0.0035	0.011	<0.002	<0.006	<0.006	0.092	<0.0005	0.0014	0.0018	0.0015	0.011
	08/23/15	200.7/200.8	0.0034	0.011	<0.002	<0.006	<0.006	0.034	<0.0005	<0.002	0.0014	0.0016	<0.01
	09/10/14	200.7/200.8	0.0039	0.011	<0.002	<0.006	<0.006	0.13	<0.001	<0.002	0.002	0.0016	0.011
	09/10/13	200.7/200.8	0.0037	0.011	<0.002	<0.006	<0.006	0.28	<0.001	0.0036	0.0014	0.0016	0.029
	08/24/12	200.7/200.8	0.0034	0.011	<0.002	<0.006	<0.006	0.042	<0.005	<0.002	0.0012	0.0015	0.03
	10/31/11	200.7/200.8	0.0033	0.011	<0.002	<0.006	<0.006	0.079	<0.005	0.0035	0.0012	0.0014	0.06
	09/23/10	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.098	<0.005	<0.002	<0.05	0.001	<0.05
	PW-4	11/20/19	200.7/200.8	0.0027	0.013	<0.002	<0.006	<0.006	0.075	<0.0025	0.0013	0.0012	0.0013
05/14/19		200.7/200.8	0.0031	0.013	<0.002	<0.006	<0.006	0.033	<0.0025	0.00049	0.0017	0.0015	0.038
02/20/19		200.7/200.8	0.0031	0.013	<0.002	<0.006	<0.006	0.031	<0.0005	0.00034	0.00096	0.0015	0.047
11/19/18		200.7/200.8	0.0033	0.012	<0.002	<0.006	<0.006	0.061	<0.0005	0.00068	0.001	0.0015	0.033
09/19/18		200.7/200.8	0.0038	0.014	<0.002	<0.006	<0.006	0.085	<0.005	0.00084	0.00099	0.0016	0.0083
03/01/18		200.7/200.8	0.0027	0.012	<0.002	<0.006	<0.006	<0.0005	<0.0005	0.0094	<0.005	0.0013	0.0067
09/18/17		200.7/200.8	0.0031	0.014	<0.002	<0.006	<0.006	0.04	<0.0005	0.00074	0.0016	NA	0.053
03/30/17		200.7/200.8	0.0030	0.013	<0.002	<0.006	<0.006	0.074	<0.0005	0.00088	0.0018	0.0015	0.031
08/31/16		200.7/200.8	0.0029	0.014	<0.002	<0.006	<0.006	0.061	<0.0005	0.00098	0.0018	0.0015	<0.01
06/10/16		200.7/200.8	0.003	0.014	<0.002	<0.006	<0.006	0.11	<0.0005	0.0012	0.0017	0.0016	<0.01
09/10/13		200.7/200.8	0.003	0.014	<0.002	<0.006	<0.006	0.12	<0.001	0.007	0.0012	0.0016	<0.01
07/28/10		6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.09	<0.005	0.0036	<0.05	0.00146	0.086

### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

### NOTES

1) PW-2 was re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.

In the field blank submitted with the 10/26/11 sampling, toluene was detected at 0.0017 ppm.



8.6.3 PW-2, PW-3, PW-4

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters																	
			Benzoic acid (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	n-Propyl benzene (mg/L)	Tetrachloro ethene (PCE) (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	0.03	NE	NE	NE	NE	0.005	
40 CFR 141.62 MCL			NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	
NMED TAP WATER (Rev 2. JUN 2019)			NE	0.0556	NE	14.8	0.612	0.354	NE	NE	0.17	5.76	NE	NE	0.00165	0.0114	0.035	14.06	NE	0.1129
EPA RSL for Tap Water (NOV 2019)			75	0.056	0.2	15	NE	0.36	0.93	0.93	NE	5.8	0.056	0.06	0.0017	0.011	0.036	14	0.66	0.011
WELL ID	DATE SAMPLED	METHOD																		
PW-2	09/18/17	8270C/8260B	0.01	<0.01	0.0051	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	<0.001
	09/10/14	8270C/8260B						<0.01	<0.02	<0.01	<0.01	<0.01					<0.01		<0.001	
	12/15/11 <sup>3</sup>	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01		<0.001	
	10/26/11	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.004		0.0073 <sup>2</sup>	
PW-3	11/20/19	8270D/8260B	<0.0005	0.00135	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005	<0.01		<0.001
	08/28/19	8270C/8260B	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004	0.002		<0.001
	05/14/19	8270C/8260B	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004	0.007		<0.001
	02/20/19	8270C/8260B	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004	<0.01		<0.001
	11/20/18	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004	0.027		<0.001
	09/19/18	8270C/8260B	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004			<0.001
	09/18/17	8270C/8260B	<0.02	0.0052	0.0048	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.004			<0.001
	08/31/16	8270C/8260B	0.0085	0.0041	0.0043	0.0037	0.0079	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	08/23/15	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	09/10/14	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	09/10/13	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	08/24/12	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	10/31/11	8270C/8260B						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	11/01/10	8270C						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
	09/23/10	8270C						<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
08/21/08	8270C						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					<0.01			<0.001
01/01/08 <sup>1</sup>	8270C						0.016	0.21	0.36	0.017	0.8					0.032			<0.001	
PW-4	11/20/19	8270D/8260B	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.01	<0.001	
	08/27/19	8270/8260B	<0.02	<0.01	<0.01	<0.01	<0.01						<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	
	05/14/19	8270/8260B	<0.02	<0.01	<0.01	<0.01	<0.01						0.00023	<0.001	<0.002	<0.004	<0.004	0.0071	<0.001	
	02/20/19	8270/8260B	0.0075	<0.01	<0.01	<0.01	<0.01						<0.001	<0.001	<0.002	<0.004	<0.004	<0.010	<0.001	
	11/19/18	8270/8260B	<0.2	<0.1	<0.1	<0.1	<0.1						<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	
	09/19/18	8270/8260B	<0.2	<0.1	<0.1	<0.1	<0.1						<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	
	03/01/18	8270/8260B	<0.02	0.0062	<0.01	<0.01	<0.01						<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	
	09/18/17	8270	<0.02	0.0053	<0.01	<0.01	<0.01						<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	
	03/30/17	8270	0.0074	0.0069	<0.01	<0.01	<0.01						<0.0005	<0.0005	<0.001	<0.002	<0.002		<0.0005	
	08/31/16	8270	0.0087	0.0031	0.0038	0.0029	0.0064						<0.001	<0.001	<0.002	<0.004	<0.004		<0.001	
	06/10/16	8270C/8260B		0.0038	0.0054						0.00045	0.00031	0.00048	0.00072	0.00083		<0.001			
	09/09/13	8260B											0.0068 <sup>4</sup>	0.0023 <sup>4</sup>					0.0013 <sup>4</sup>	

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Due to inclement weather conditions in December 2007, the 2007 annual sampling was completed in January 2008.

2) PW-2: Detected for the first time. In the field blank submitted, toluene was detected at 0.0017 mg/L.

3) PW-2 was re-sampled due to the detection of PCE in the 10/26/2011 sample.

4) PW-4: Detected for the first time.



**8.7 GWM-1, GWM-2, GWM-3**  
**BTEX and MTBE Analytical Result Summary**

			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.62 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
GWM-1	2019 - 2016	--	NO SAMPLES COLLECTED - SPH DETECTED				
	10/29/15	--	NO SAMPLES COLLECTED - SPH DETECTED				
	08/24/15	8260B	0.0085	0.033	0.011	0.11	0.04
	06/02/15	8021B	0.012	0.0033	0.0056	0.024	0.051
	03/10/15	8021B	0.011	0.0022	0.0051	0.021	0.049
	11/13/14	8260B	0.012	<0.005	0.0057	0.023	0.05
	09/12/14	8260B	0.01	0.0031	0.004	0.016	0.041
	06/05/14	8260B	0.011	0.0021	0.0048	0.019	0.051
	03/11/14	8260B	0.0088	0.0022	0.0037	0.015	0.039
	11/11/13	8260B	0.008	0.0023	0.0038	0.014	0.039
	09/03/13	8260B	0.008	<0.005	<0.005	0.016	0.035
	06/12/13	8260B	0.0077	0.0048	0.0039	0.018	0.04
	03/18/13	8260B	0.0098	<0.005	<0.005	0.018	0.043
	11/28/12	8260B	<0.01	<0.01	<0.01	<0.015	0.052
	08/21/12	8260B	0.0078	0.0024	0.0035	0.015	0.044
	06/12/12	8260B	0.0053	0.0014	0.0025	0.0094	0.04
	03/20/12	8260B	0.0057	<0.001	0.0019	0.007	0.054
	12/14/11	8260B	0.0085	0.0019	0.0042	0.014	0.054
	09/26/11	8260B	0.0096	0.0052	0.0059	0.03	0.051
	06/15/11	8260B	0.0074	0.0027	0.0053	0.026	0.047
	02/16/11	8260B	0.0095	0.0034	0.0054	0.023	0.057
	11/02/10	8260B	0.0069	0.0023	0.0035	0.022	0.062
	09/16/10	8260B	0.0075	0.0049	0.0067	0.03	0.053
	07/20/10	8260B	0.008	0.002	0.0068	0.03	0.077
	03/03/10 <sup>2</sup>	8260B	0.012	0.005	0.011	0.05	0.078
GWM-2	2019 - 2014	--	DRY				
	11/11/13	--	INSUFFICIENT WATER VOLUME TO SAMPLE				
	09/03/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.0023
	06/12/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.0026
	03/18/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	11/28/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	08/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.0026
	06/12/12	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	03/20/12	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/11	8021B	<0.001	<0.001	<0.001	<0.001	0.0027
	09/26/11	8021B	<0.001	<0.001	<0.001	<0.002	0.0026
	06/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.003
	02/16/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0083
	10/04/10	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	09/16/10	8260B	<0.001	<0.001	<0.001	<0.003	0.011



## 8.7 GWM-1, GWM-2, GWM-3

### BTEX and MTBE Analytical Result Summary

			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.62 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
GWM-3	2019 - 2013	--	DRY				
	11/28/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	08/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.0015
	06/12/12	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	03/20/12	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/26/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	06/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	02/16/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0081
	10/04/10	8260B	<0.001	<0.001	<0.001	<0.003	0.0092
	09/16/10	8260B	<0.001	<0.001	<0.001	<0.003	0.009

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



# 8.7.1 GWM-1, GWM-2, GWM-3

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

			PARAMETERS						
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	NE	NE
40 CFR 141.62 MCL			4	NE	1	10	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE
EPA RSL for Tap Water (NOVEMBER 2019)			0.8	NE	2	32	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
GWM-1	2019 - 2016	--	NO SAMPLES COLLECTED - SPH DETECTED						
	10/29/15	--	NO SAMPLES COLLECTED - SPH DETECTED						
	09/23/15 <sup>1</sup>	8015D	NA	NA	NA	NA	68	<2.5	18
	08/24/15	300.0/8015D	2.6	1100	<1.0	<1.0	250	1.2	<50
	06/02/15	300.0/8015D	2.7	1100	<2.0	<2.0	1.7	NA	<5.0
	03/10/15	300.0/8015D	2.2	1000	<0.5	<0.5	2.4	0.49	<5.0
	11/13/14	300.0/8015B	1.8	1000	<1.0	<1.0	2.3	0.5	<5.0
	09/12/14	300.0/8015B	2.4	910	<1.0	<1.0	2.1	0.51	<5.0
	06/05/14	300.0/8015B	2.2	890	<1.0	<1.0	3.4	0.56	<5.0
	03/11/14	300.0/8015B	2.6	930	<1.0	<1.0	3.3	0.66	<5.0
	11/11/13	300.0/8015B	2.3	1000	4.1	4.1	7.1	0.49	NA
	09/03/13	300.0/8015B	3.1	960	35	35	2.3	0.49	<5.0
	06/12/13	300.0/8015B	2.7	940	<1.0	<1.0	3.9	0.66	<5.0
	03/18/13	300.0/8015B	2.7	1000	<1.0	<1.0	5.3	0.57	<5.0
	11/28/12	300.0/8015B	3.2	1000	<0.5	<0.5	1.6	1.1	<5.0
	08/21/12	300.0/8015B	3	1200	<0.5	<0.5	<1.0	1.2	<5.0
	06/12/12	300.0/8015B	3.4	1300	<0.5	<0.5	<1.0	1.2	<5.0
	03/20/12	300.0/8015B	3.6	1200	<0.5	<0.5	3.5	1	<5.0
	12/14/11	300.0/8015B	1.2	1300	<1.0	<1.0	2.9	0.81	<5.0
	09/26/11	300.0/8015B	3.5	1300	<4.0	<4.0	3.9	0.65	<5.0
	06/15/11	300.0/8015B	2.6	1200	<2.0	<2.0	4	0.53	<5.0
	02/16/11	300.0/8015B	2.8	1400	2.1	2.1	5.4	0.7	<5.0
	11/02/10	300.0/8015B	3.5	1300	<1.0	<1.0	6	0.68	
	09/16/10	300.0/8015B	2.9	1400	<4.0	<4.0	7.7	0.71	
	07/20/10	300.0	2.9	1500	<4.0	<4.0	NA	NA	
	03/03/10	300.0/8015B	2.1	1600	<4.0	<4.0	3.9	0.88	
GWM-2	2019 - 2014	--	DRY						
	11/11/13	--	INSUFFICIENT WATER VOLUME TO SAMPLE						
	09/03/13	300.0/8015B	0.84	990	44	44	<1.0	<0.05	<5.0
	06/12/13	300.0/8015B	<1.0	960	<1.0	<1.0	<1.0	<0.05	<5.0
	03/18/13	300.0/8015B	1.6	1100	<2.0	<2.0	<1.0	0.052	<5.0
	11/28/12	300.0/8015B	3.8	1000	<0.5	15	<1.0	<0.5	<5.0
	08/21/12	300.0/8015B	2.8	1200	<0.5	14	<1.0	<0.25	<5.0
	06/12/12	300.0/8015B	3.5	1200	<0.5	24	<1.0	<0.25	<5.0
	03/20/12	300.0/8015B	3.6	1500	<0.5	38	2.4	<0.25	<5.0
	12/14/11	300.0/8015B	0.48	2100	25	25	<1.0	<0.05	<5.0
	09/26/11	300.0/8015B	1.6	2200	52	52	<1.0	<0.05	<5.0
	06/15/11	300.0/8015B	3.1	2200	66	66	<1.0	<0.05	<5.0
	02/16/11	300.0/8015B	0.43	910	2.6	2.6	<1.0	<0.05	
	10/04/10	300.0/8015B	0.52	1800	<4.0	<4.0	<1.0	<0.05	
	09/16/10	300.0/8015B	0.46	1400	<4.0	<4.0	<1.0	<0.05	



### 8.7.1 GWM-1, GWM-2, GWM-3

#### General Chemistry and DRO/GRO/MRO Analytical Result Summary

			PARAMETERS						
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	NE	NE
40 CFR 141.62 MCL			4	NE	1	10	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE
EPA RSL for Tap Water (NOVEMBER 2019)			0.8	NE	2	32	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
GWM-3	2019 - 2013	--	DRY						
	11/28/12	300.0/8015B	5.6	1200	<0.5	8.8	<1.0	0.088	<5.0
	08/21/12	300.0/8015B	4.9	1200	<0.5	43	<1.0	<0.25	<5.0
	06/12/12	300.0/8015B	4.4	1400	<0.5	6.2	<1.0	<0.25	<5.0
	03/20/12	300.0/8015B	4.9	1300	<0.5	18	2.7	<0.25	<5.0
	12/14/11	300.0/8015B	5	1400	51	51	1.3	<0.05	<5.0
	09/26/11	300.0/8015B	5.3	1000	130	130	2.7	<0.05	<5.0
	06/15/11	300.0/8015B	5.5	610	<2.0	<2.0	1.1	0.12	<5.0
	02/16/11	300.0/8015B	4.2	1100	61	61	<1.0	<0.05	<5.0
	10/04/10	300.0/8015B	5.9	1800	61	61	1.3	0.12	
	09/16/10	300.0/8015B	4.7	2000	66	66	3.7	0.066	

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

#### NOTES

1) Oil sample collected from GWM-1 - sampled for DRO/GRO/MRO only.



8.7.2 GWM-1, GWM-2, GWM-3  
Total Metals Analytical Result Summary

PARAMETERS												
	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10	
40 CFR 141.62 MCL	0.01	2	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE	
NMED TAP WATER (JUNE 2019)	0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96	
EPA RSL for Tap Water (NOVEMBER 2019)	0.000052	3.8	NE	0.8	14	0.015	0.43	0.1	0.000063	0.004	6	
WELL ID	DATE SAMPLED	METHOD										
GWM-1	2019 - 2016	--	NO SAMPLES COLLECTED - SPH DETECTED									
	10/29/15	--	NO SAMPLES COLLECTED - SPH DETECTED									
	08/24/15	200.7/200.8	0.27	0.47	<0.006	12	0.0077	2.1	<0.0002	0.015	0.025	
	06/02/15	200.7/200.8	0.11	0.43	<0.006	11	0.0079	2	<0.0002	0.016	0.022	
	03/10/15	200.7/200.8	0.13	0.49	<0.006	12	0.0055	2.4	<0.0002	0.016	0.02	
	11/13/14	200.7/200.8	0.16	0.51	<0.006	17	0.013	2.2	<0.0002	0.015	0.027	
	09/12/14	200.7/200.8	0.14	0.67	<0.006	13	0.0042	2.6	<0.0002	0.015	0.018	
	06/05/14	200.7/200.8	0.13	0.54	<0.006	13	0.008	2.5	<0.0002	0.012	0.021	
	03/11/14	200.7/200.8	0.12	0.49	<0.006	14	0.0062	2.5	<0.0002	0.015	0.018	
	11/11/13	200.7/200.8	0.13	0.51	<0.006	17	0.017	2.2	<0.0002	0.015	0.038	
	09/03/13	200.7/200.8	0.12	0.85	<0.006	15	0.0041	2.8	<0.0002	0.01	0.024	
	06/12/13	200.7/200.8	0.15	0.93	<0.006	11	NL	3.1	<0.0002	0.0073	0.019	
	03/18/13	200.7/200.8	0.12	0.88	<0.006	8	0.0059	2.9	<0.0002	0.0055	0.012	
	11/28/12	200.7/200.8	0.092	0.73	<0.006	10	0.012	2.7	<0.0002	0.016	0.021	
	08/21/12	200.7/200.8	0.09	1.1	<0.006	9.8	0.0056	3.1	<0.0002	0.0052	0.019	
	06/12/12	200.7/200.8	0.066	0.84	<0.006	8.7	0.011	2.7	<0.001	0.011	0.019	
	03/20/12	200.7/200.8	0.073	1.1	<0.006	8.9	0.0058	3	<0.001	0.0069	0.016	
	12/14/11	200.7/200.8	0.097	0.67	<0.006	15	0.023	2.5	<0.0002	0.02	0.041	
	09/26/11	200.7/200.8	0.12	1.5	<0.006	17	<0.005	2.8	<0.0002	0.007	0.025	
	06/15/11	200.7/200.8	0.14	1.5	<0.006	17	0.01	2.8	<0.0002	0.0084	0.026	
	02/16/11	200.7/200.8	0.16	0.94	0.0089	17	0.0098	3	<0.0002	0.015	0.038	
GWM-2	11/02/10	6010B	0.14	1.4	<0.006	7.9	0.0095	3	<0.0002	0.009	0.025	
	09/16/10	6010B	0.12	0.87	<0.006	15	0.012	2.9	<0.0002	0.015	0.023	
	07/20/10	6010B	0.16	1.2	<0.006	20	0.011	3	<0.0002	0.011	0.031	
	03/03/10	6010B	0.098	0.42	<0.006	15	0.0078	3	<0.0002	0.0224	0.03	
GWM-2	2018 - 2014	--	DRY									
	11/11/13	--	INSUFFICIENT WATER VOLUME TO SAMPLE									
	09/03/13	200.7/200.8	0.0076	0.059	<0.006	0.16	0.87	1.1	<0.0002	0.16	0.026	
GWM-3	06/12/13	200.7/200.8	<0.01	0.068	<0.006	0.012	1.6	1.1	<0.0002	0.17	0.021	
	08/21/12	200.7/200.8	0.0066	0.04	<0.006	0.045	0.44	0.45	<0.0002	0.12	0.025	
GWM-3	2018 - 2013	--	DRY									
	08/21/12	200.7/200.8	0.0033	0.04	<0.006	0.22	1.7	1	<0.0002	0.067	0.47	



## 8.7.2 GWM-1, GWM-2, GWM-3

### Total Metals Analytical Result Summary

PARAMETERS											
	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL	0.01	2	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
NMED TAP WATER (JUNE 2019)	0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)	0.000052	3.8	NE	0.8	14	0.015	0.43	0.1	0.000063	0.004	6
WELL ID	DATE SAMPLED	METHOD									

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.7.3 GWM-1, GWM-2, GWM-3  
Dissolved Metals Analytical Result Summary

PARAMETERS												
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	NE	0.03	10
40 CFR 141.62 MCL	0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	NE	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)	0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	NE	0.004	6
WELL ID	DATE SAMPLED	METHOD										
GWM-1	2019 - 2016	NO SAMPLES COLLECTED - SPH DETECTED										
	10/29/15	NO SAMPLES COLLECTED - SPH DETECTED										
	08/24/15	0.14	0.44	<0.002	<0.006	9.2	0.0041	2	0.011	1100	0.015	0.026
	06/02/15	0.11	0.38	<0.002	0.008	11	<0.01	1.9	0.011	1100	0.015	0.027
	03/10/15	0.12	0.56	<0.002	<0.006	9.8	<0.005	2.3	<0.02	1100	0.011	0.021
	11/11/13	0.14	0.45	<0.002	<0.006	15	<0.01	2.3	<0.01	1100	0.014	0.029
	09/12/14	0.13	0.78	<0.002	<0.006	11	0.0026	2.4	0.02	1100	0.015	0.023
	06/05/14	0.13	0.56	<0.002	<0.006	12	<0.005	2.6	0.018	NL	0.011	0.065
	03/11/13	0.081	0.47	<0.002	<0.006	2.4	<0.001	2.5	<0.01	NL	0.015	0.021
	11/11/13	0.11	0.51	<0.002	<0.006	11	0.0037	2.2	0.015	1200	0.014	0.11
	09/03/13	0.12	0.83	<0.002	<0.006	13	<0.005	2.7	0.013	1100	0.011	0.1
	06/12/13	0.12	0.87	<0.002	<0.006	8.1	0.0024	3.2	0.02	1000	0.0068	0.017
	03/18/13	0.11	0.83	<0.002	<0.006	6	0.006	2.8	<0.005	860	0.005	0.013
	11/28/12	0.084	0.83	<0.002	<0.006	8.7	0.0037	2.9	0.0055	1000	0.019	0.11
	08/21/12	0.082	1.1	<0.002	<0.006	6.8	<0.005	3.1	0.0076	990	0.0038	0.03
	06/12/12	0.054	1.1	<0.002	<0.006	4	<0.005	2.9	0.0099	980	0.0055	0.016
	03/20/12	0.073	0.97	<0.002	<0.006	9.4	0.0052	3	0.0096	1100	0.006	0.067
	12/14/11	0.088	0.52	<0.01	<0.03	11	<0.025	2.3	0.0067	1200	0.02	<0.05
	09/26/11	0.12	1.3	<0.002	<0.006	14	<0.005	2.7	0.012	1200	0.0081	0.028
	06/15/11	0.1	1.4	<0.01	<0.03	14	<0.025	2.7	0.025	1000	0.0075	0.063
	02/16/11	0.15	0.95	<0.01	<0.03	14	<0.025	2.9	0.014	1200	0.013	<0.05
	11/02/10	<0.2	1.3	<0.002	<0.006	5.2	0.0094	3	<0.05	1100	0.007	NL
	09/16/10	0.12	1.2	<0.002	<0.006	15	0.0086	2.9	<0.25	1200	0.01	NL
	07/20/10 <sup>2</sup>	0.15	1.1	<0.002	<0.006	14	0.0056	2.9	<0.05	1200	NL	<0.05
	03/02/10 <sup>1</sup>	0.074	0.38	<0.002	<0.006	12	0.0084	2.7	<0.05	1200	0.028	0.059



### 8.7.3 GWM-1, GWM-2, GWM-3

[illegible]



**8.7.3 GWM-1, GWM-2, GWM-3**  
Dissolved Metals Analytical Result Summary

PARAMETERS													
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	NE	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	NE	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	NE	0.004	6
WELL ID	DATE SAMPLED	METHOD											
GWM-3	2019 - 2013	DRY											
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	08/21/12	<0.005	0.029	<0.002	<0.006	0.23	0.88	0.063	1.7	0.0099	1200	0.066	0.46
	06/12/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	03/20/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400	NA	NA
	12/14/11	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	09/26/11	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	06/15/11	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	02/16/11	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	10/04/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	09/16/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**DEFINITIONS**

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.7.4 GWM-1, GWM-2, GWM-3  
Volatile and Semi-Volatile Organic Compound Analytical Result Summary

PARAMETERS																																		
	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	2,4-Dimethyl phenol (mg/L)	Benz(a) anthracene (mg/L)	Benz(a) pyrene (mg/L)	Benzo (g,H,i) perylene (mg/L)	Chrysene (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)													
GWM-1	WQCC 20 NMAC 6.2.3103 (DEC 2018)																																	
	40 CFR 141.61 MCL																																	
	NMED TAP WATER (JUNE 2019)																																	
	EPA RSL for Tap Water (NOVEMBER 2019)																																	
	WELL ID	DATE SAMPLED	METHOD	NO SAMPLES COLLECTED - SPH DETECTED																														
	GWM-1	2019 - 2016	--	NO SAMPLES COLLECTED - SPH DETECTED																														
		10/29/15	--	NO SAMPLES COLLECTED - SPH DETECTED																														
		8260B/8270C	--	NO SAMPLES COLLECTED - SPH DETECTED																														
		8021B	8260B/8270C	0.063	0.0047	0.017	0.045	0.067	0.087	<0.05	<0.005	<0.015	<0.005	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005	<0.250	1.3	0.34	0.062	0.34	1.8	5.4	37	27	2.5	25	4.8			
		8021B	8260B	0.0028	0.0012	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		8260B	8260B	0.0057	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.015	<0.005	0.027	<0.001	<0.005	<0.015	<0.005	<0.005	<0.005	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078		
		8260B/8270C	8260B/8270C	0.0098	0.0012	0.0012	<0.002	<0.004	<0.004	<0.01	0.0017	<0.003	0.003	<0.001	0.078	<0.001	<0.003	<0.003	<0.003	<0.003	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	0.078	
		8260B	8260B	0.011	0.0012	0.0012	<0.002	<0.004	<0.004	0.02	0.0017	<0.003	0.0021	NA	NA	NA	<0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		8260B	8260B	7	<0.001	<0.001	<0.002	0.0068	<0.004	<0.01	0.0011	<0.003	0.0016	NA	NA	NA	<0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		8260B	8260B	0.0052	<0.001	<0.001	<0.002	0.0047	<0.004	<0.01	0.0012	<0.003	0.0018	NA	NA	NA	<0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		8260B/8270C	8260B/8270C	0.011	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.015	<0.005	0.077	<0.005	<0.005	<0.015	<0.005	<0.005	<0.005	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077	0.077
		8260B	8260B	0.013	0.0027	0.0027	<0.002	<0.004	<0.004	0.013	0.0012	<0.003	0.0018	NA	NA	NA	<0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		8260B	8260B	0.019	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.015	<0.005	NA	NA	NA	<0.015	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		8260B	8260B	<0.01	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01	<0.03	<0.01	NA	NA	NA	<0.03	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		8260B/8270C	8260B/8270C	0.0097	0.0019	0.0019	<0.002	<0.004	<0.004	<0.01	0.0011	<0.003	0.0022	0.032	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032
8260B		8260B	0.0049	<0.001	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8260B		8260B	0.0018	<0.001	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.001	<0.001	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8260B		8260B	0.004	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	0.0013	<0.001	<0.001	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8260B		8260B	0.019	0.0029	0.0029	0.0044	<0.004	<0.004	<0.01	0.0019	<0.01	<0.001	0.0027	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8260B	8260B	0.018	0.0031	0.0031	0.0055	<0.004	<0.004	<0.01	0.0018	<0.01	<0.001	0.0028	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
8260B	8260B	0.008	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	0.0014	<0.001	<0.001	0.0018	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
8260B	8260B	0.0075	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	0.0012	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
8260B	8260B	0.012	0.0019	0.0019	NA	<0.004	<0.004	<0.01	0.0016	<0.001	<0.001	0.0016	NA	NA	<0.001	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
8260B Short List	8260B/8270C	0.013	<0.001	<0.001	0.0035	0.0072	<0.004	0.0016	0.0015	<0.005	0.052	0.052	NA	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8260B	8260B	0.0081	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
GWM-2	2019 - 2014																																	
	11/11/13																																	
	8206B	8206B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.003	<0.001	<0.01	<0.001	<0.001	<0.003	<0.001	<0.001	<0.01	<0.01	<0.01													
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	0.011	<0.001	<0.001	<0.003	<0.001	NA	NA	<0.001	<0.003	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	0.011	<0.001	<0.001	<0.003	<0.001	NA	NA	<0.001	<0.003	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	0.011	<0.001	<0.001	<0.003	<0.001	NA	NA	<0.001	<0.003	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA														
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA														
GWM-3	2019 - 2013																																	
	6/15/2011																																	
	8260B	8260B	<0.001	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA														

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



**8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
NAPIS-1	06/02/17	8260B	0.000067	<0.001	<0.001	<0.0015	0.0031
	02/21/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0013
	11/14/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00087
	09/01/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0018
	06/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	03/01/16	8260B	<0.001	<0.001	<0.001	9.2	0.0003
	10/28/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/02/15	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/10/15	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/11/14	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/11/14	8260B	0.0014	<0.001	<0.001	<0.0015	<0.001
	06/05/14	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/10/14	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/12/13	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/03/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/12/13	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/18/13	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/28/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	08/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/12/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/20/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/27/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	06/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/02/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/02/10	8260	<0.001	<0.001	<0.001	<0.003	<0.0015
	09/15/10	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	06/08/10	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/08/10	8021B	<0.001	<0.001	<0.001	<0.002	NA



**8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
NAPIS-2	10/21/19	8260B	0.210	<0.001	0.024	<0.0015	0.1
	08/22/19	8260B	0.220	0.00045	0.044	0.00085	0.11
	05/28/19	8260B	0.270	<0.001	0.045	<0.0015	0.098
	04/09/19	260B SHORT LI	0.340	<0.01	0.024	0.001	0.097
	04/30/18	8260B	0.032	0.00230	0.035	0.00061	0.099
	02/09/18	8260B	0.027	0.00069	0.033	0.0016	0.13
	12/04/17	8260B	0.021	0.00031	0.038	0.00069	0.16
	09/05/17	8260B	0.030	0.00030	0.037	0.00078	0.14
	06/01/17	8260B	0.035	0.00025	0.016	0.00071	0.14
	02/21/17	8260B	0.024	0.00014	0.0031	0.00053	0.18
	11/14/16	8260B	0.0041	0.0001	0.0014	<0.0015	0.16
	09/01/16	8260B	0.0050	<0.001	0.0015	<0.0015	0.18
	06/07/16	8260B	0.0045	0.0001	0.0051	<0.0015	0.14
	03/01/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/15	8260B	0.0091	<0.001	0.0021	<0.0015	0.23
	08/11/15	8260B	0.012	<0.001	0.0028	<0.0015	0.2
	06/02/15	8021B	0.016	<0.001	0.0073	<0.002	0.2
	03/10/15	8021B	0.032	<0.001	0.0120	0.0027	0.22
	11/11/14	8021B	0.016	<0.001	0.0052	<0.002	0.34
	09/11/14	8260B	0.027	<0.001	0.007	<0.0015	0.29
	06/05/14	8021B	0.086	0.0021	0.028	0.0037	0.2
	03/10/14	8021B	0.067	<0.002	0.028	<0.004	0.21
	11/12/13	8021B	0.001	<0.001	0.0083	<0.002	0.25
	09/03/13	8260B	0.018	<0.001	0.013	0.0016	0.24
	06/12/13	8021B	0.013	<0.001	0.047	<0.002	0.3
	03/18/13	8021B	0.07	<0.001	0.056	0.0022	0.38
	11/28/12	8021B	0.016	<0.002	0.003	<0.004	0.36
	08/21/12	8260B	0.01	<0.005	<0.005	<0.0075	0.16
	06/12/12	8021B	0.018	<0.01	0.012	<0.02	0.34
	03/20/12	8021B	0.019	<0.01	0.011	<0.02	0.37
	12/14/11	8021B	0.022	<0.005	0.0089	<0.01	0.33
	09/27/11	8021B	0.035	<0.005	<0.005	<0.01	0.33
	06/15/11	8260B	0.027	<0.005	0.018	<0.0075	0.28
	03/02/11	8021B	0.04	<0.005	0.014	<0.01	0.34
	11/02/10	8260	0.015	<0.005	<0.005	<0.0015	0.27
	09/15/10	8260B	0.066	<0.005	0.0083	<0.015	0.23
	06/10/10	8021B	0.14	<0.005	0.0096	<0.001	0.23
	03/08/10	8260B	0.083	0.0014	0.016	0.0021	0.25



**8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
NAPIS-3	10/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
	08/22/19	8260B	0.00054	<0.001	<0.001	<0.0015	0.03
	05/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	04/09/19	8260B	<0.001	<0.001	0.00076	<0.0015	0.04
	04/30/18	8260B	0.29	0.00660	0.0083	0.013	0.032
	02/09/18	8260B	0.00016	<0.001	0.000098	<0.0015	0.033
	12/04/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.042
	09/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.018
	06/02/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.040
	02/21/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.016
	11/14/16	8260B	<0.001	0.00021	<0.001	<0.0015	0.01500
	09/01/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00084
	06/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00044
	03/01/16	8260B	0.013	0.00023	0.0053	<0.0015	0.16
	10/28/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/02/15	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/10/15	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/13/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/11/14	8260B	0.0038	<0.001	0.0019	<0.0015	0.011
	06/05/14	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/10/14	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/12/13	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/03/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/12/13	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/18/13	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	11/28/12	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	10/2/2012 <sup>1</sup>	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	06/12/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/20/12	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	09/27/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	06/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/02/11	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/02/10	8260	<0.001	<0.001	<0.001	<0.0015	<0.0015
	09/15/10	8021B	0.001	<0.001	<0.001	<0.002	<0.0025
	06/10/10	8021B	0.2	<0.001	0.012	<0.002	0.08
	03/08/10	8021B	0.072	<0.001	0.001	<0.002	NA



**8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
KA-3	10/21/19	8260B	0.057	<0.004	0.0062	<0.0015	0.056
	08/22/19	8260B	0.38	<0.001	0.048	0.00062	0.068
	05/28/19	8260B	0.2	<0.001	0.015	0.00057	0.061
	04/09/19	260B SHORT LI	0.21	<0.001	0.028	0.0012	0.061
	04/30/18	8260B	0.5900	0.51	0.054	0.058	0.032
	02/09/18	8260B	0.0033	<0.001	0.002	<0.0015	0.029
	12/04/17	8260B	0.0042	<0.001	0.002	<0.0015	0.040
	09/05/17	8260B	0.0025	<0.001	0.0011	<0.0015	0.041
	06/01/17	8260B	0.00048	<0.001	0.00027	<0.0015	0.046
	02/21/17	8260B	0.017	<0.001	0.0077	<0.0015	0.046
	11/14/16	8260B	0.0044	<0.001	0.0013	<0.0015	0.037
	09/01/16	8260B	0.0071	<0.001	0.0032	<0.0015	0.045
	06/07/16	8260B	0.0060	<0.001	0.0015	<0.0015	0.037
	03/03/16	8260B	0.0054	<0.001	0.0027	<0.0015	0.015
	10/28/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	06/02/15	8021B	<0.001	<0.001	<0.001	<0.002	0.012
	03/10/15	8021B	<0.001	<0.001	<0.001	<0.002	0.0088
	11/11/14	8021B	<0.001	<0.001	<0.001	<0.002	0.0130
	09/11/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/05/14	8021B	<0.001	<0.001	<0.001	<0.002	0.0056
	03/10/14	8021B	<0.001	<0.001	<0.001	<0.002	0.0039
	11/12/13	8021B	0.0024	<0.001	0.0018	<0.002	0.0065
	09/03/13	8260B	0.0034	<0.001	0.0014	<0.0015	0.2000
	06/12/13	8021B	0.009	<0.001	0.0083	<0.002	0.031
	03/18/13	8021B	0.011	<0.001	0.0110	<0.002	0.017
	11/28/12	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	08/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	06/12/12	8021B	0.013	<0.001	0.0045	<0.002	0.028
	03/20/12	8021B	0.015	<0.002	0.0042	<0.004	0.035
	12/14/11	8021B	0.024	<0.001	0.0045	<0.002	0.057
	09/27/11	8021B	0.064	<0.001	0.011	<0.002	0.099
	06/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.077
	03/02/11	8021B	<0.005	<0.005	<0.005	<0.01	0.088
	11/02/10	8260	0.23	<0.01	0.014	<0.03	0.1
	09/15/10	8260B	0.52	<0.01	0.031	<0.03	0.11
	06/10/10	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	03/08/10	8021B	<0.01	<0.01	<0.01	<0.01	NA



## 8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

### BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

1) Was not sampled in September due to low recharge rate.



## 8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1.0	10	NE	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (MAR 2019)			NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD									
NAPIS-1	06/02/17	300.0/8015D	0.25	130	16	16	<0.5	110	<1.0	<0.05	<5.0
	02/21/17	300.0/8015D	0.32	110	27	27	<0.5	110	<1.0	<0.05	<5.0
	11/14/16	300.0/8015D	0.56	110	12	12	<0.5	99	<1.0	<0.05	<5.0
	09/01/16	300.0/8015D	0.27	0.97	<0.1	10	<0.5	99	<1.0	<0.05	<5.0
	06/07/16	300.0/8015D	0.44	130	21	21	<0.5	140	<1.0	<0.05	<5.0
	03/01/16	300.0/8015D	0.38	110	14	14	<2.5	110	<1.0	<0.05	<5.0
	10/28/15	300.0/8015D	0.52	85	6.9	6.9	<0.5	85	<1.0	<0.05	<5.0
	08/11/15	300.0/8015D	0.67	110	8.6	8.6	<0.5	100	<1.0	<0.05	<5.0
	06/02/15	300.0/8015D	<1.0	100	9.1	9.1	<5.0	93	<1.0	NA	<5.0
	03/10/15	300.0/8015D	0.35	82	5.6	5.6	<0.5	75	<1.0	<0.05	<5.0
	11/11/14	300.0/8015B	0.69	1100	5.1	5.1	<0.5	130	<1.0	<0.05	NA
	09/11/14	300.0/8015B	0.46	91	7.1	7.1	<0.5	110	<1.0	<0.05	<5.0
	06/05/14	300.0/8015B	0.4	86	14	14	<0.5	140	<1.0	<0.05	<5.0
	03/10/14	300.0/8015B	<0.5	79	<0.5	29	<2.5	180	<1.0	<0.05	<5.0
	11/12/13	300.0/8015B	0.42	120	<0.1	30	<0.5	210	<1.0	<0.05	NA
	09/03/13	300.0/8015B	0.53	110	34	34	<0.5	69	<1.0	<0.05	<5.0
	06/12/13	300.0/8015B	<1.0	89	3.3	3.3	<5.0	35	<1.0	<0.05	<5.0
	03/18/13	300.0/8015B	0.63	97	1.1	1.1	<2.5	39	<1.0	<0.05	<5.0
	11/28/12	300.0/8015B	1.1	110	<0.5	1.4	<2.5	70	<1.0	<0.05	<5.0
	08/21/12	300.0/8015B	0.54	96	<0.5	2.6	<2.5	52	<1.0	<0.05	<5.0
	06/12/12	300.0/8015B	0.88	120	<0.5	2.9	<2.5	68	<1.0	<0.05	<5.0
	03/20/12	300.0/8015B	0.49	100	<0.1	3.3	<0.5	56	<1.0	<0.05	<5.0
	12/14/11	300.0/8015B	0.67	150	4.7	4.7	<10	82	<1.0	<0.05	<5.0
	09/27/11	300.0/8015B	1.1	180	58	58	<2.5	110	<1.0	<0.05	<5.0
	06/15/11	300.0/8015B	0.52	140	<0.1	6.2	<0.5	78	<1.0	0.11	<5.0
	03/02/11	300.0/8015B	0.42	180	9.5	9.5	<0.5	92	<1.0	<0.05	<5.0
	11/02/10	300.0/8015B	0.96	200	<2.0	6.9	<0.5	98	<1.0	<0.05	
	09/15/10	300.0/8015B	0.5	189	11.2	11.2	0.019	65	<1.0	<0.05	
	06/08/10	300.0/8015B	0.73	170	4.0	4.0	<0.5	56	<1.0	<0.05	
	03/08/10	300.0/8015B	0.75	130	2.0	2.0	<0.5	52	<1.0	<0.05	
NAPIS-2	10/21/19	300.0/8015D	2.2	180	<0.5	<0.5	<2.5	1.4	0.2	0.99	<2.5
	08/22/19	300.0/8015D	2.1	180	<0.5	<0.5	<2.5	0.97	2.0	1	<5.0
	05/28/19	300.0/8015D	2.2	150	<0.5	<0.5	<2.5	2	1.9	0.96	<5.0
	04/09/19	300.0/8015D	2.1	140	<5	<0.5	<2.5	4	1.5	1.3	<5.0
	04/30/18	300.0/8015D	1.6	220	<1.0	<1.0	<2.5	3.6	1.9	0.59	<5.0
	02/09/18	300.0/8015D	1.5	250	<1.0	<1.0	1.8	6	1.3	0.81	<5.0
	12/04/17	300.0/8015D	1.5	270	<1.0	<1.0	<2.5	6.1	2.1	0.88	<5.0
	09/05/17	300.0/8015D	1.5	280	<1.0	<1.0	<2.5	6.5	1.7	0.63	<5.0
	06/01/17	300.0/8015D	1.5	260	<1.0	<1.0	<0.5	6.5	1.2	0.53	<5.0
	02/21/17	300.0/8015D	1.8	250	<1.0	<1.0	<0.5	8.7	2.4	0.6	<5.0
	11/14/16	300.0/8015D	1.7	310	<1.0	<1.0	<0.5	11	1.0	0.56	<5.0
	09/01/16	300.0/8015D	1.7	300	<0.5	<0.5	<2.5	7.8	1.1	0.75	<5.0
	06/07/16	300.0/8015D	1.7	340	<1.0	<1.0	<0.5	19	<1.0	0.44	<5.0
	03/01/16	300.0/8015D	1.6	330	<1.0	<1.0	<2.5	18	<1.0	0.38	<5.0
	10/28/15	300.0/8015B	1.7	320	<1.0	<1.0	<0.5	13	1.1	0.37	<5.0
	08/11/15	300.0/8015D	1.6	310	<1.0	<1.0	<0.5	11	<1.0	0.51	<5.0
	06/02/15	300.0/8015D	2.1	290	<2.0	<2.0	<5.0	9.9	<1.0	NA	<5.0
	03/10/15	300.0/8015B	1.4	300	<0.5	<0.5	<2.5	7.8	1.2	0.49	<5.0
	11/11/14	300.0/8015B	1.6	330	<1.0	<1.0	<2.5	11.0	<1.0	0.6	<5.0
	09/11/14	300.0/8015B	1.6	360	<1.0	<1.0	<0.5	11.0	1.3	0.41	<5.0
	06/05/14	300.0/8015B	1.3	330	<1.0	<1.0	<0.5	4.8	1.5	0.62	<5.0
	03/10/14	300.0/8015B	1.5	220	<1.0	<1.0	<5.0	10.0	1.8	0.64	<5.0
	11/12/13	300.0/8015B	1.7	260	<0.1	<0.1	<0.5	23	1.4	0.41	NA
	09/03/13	300.0/8015B	1.8	290	5.2	5.2	<0.5	7.8	<1.0	0.47	<5.0



## 8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1.0	10	NE	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (MAR 2019)			NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD									
NAPIS-2 (continued)	06/12/13	300.0/8015B	1.6	230	<1.0	<1.0	<5.0	7.8	1.9	0.74	<5.0
	03/18/13	300.0/8015B	1.6	270	<1.0	<1.0	<2.5	4.9	2.9	0.65	<5.0
	11/28/12	300.0/8015B	1.7	370	<0.5	<0.5	<2.5	11	<1.0	0.52	<5.0
	08/21/12	300.0/8015B	1.6	370	<0.5	<0.5	<2.5	11	<1.0	1.4	<5.0
	06/12/12	300.0/8015B	1.7	350	<0.5	<0.5	<2.5	7.9	<1.0	1.3	<5.0
	03/20/12	300.0/8015B	0.49	330	<1.0	<1.0	<0.5	5.3	4.7	1.4	<5.0
	1/30/2012 <sup>2</sup>	300.0/8015B	1.1	420	<1.0	<1.0	<2.5	<2.5	NA	NA	NA
	12/14/2011 <sup>1</sup>	300.0/8015B	NA	NA	NA	NA	NA	NA	3.4	0.61	<5.0
	09/27/11	300.0/8015B	1.8	270	80	80	<2.5	6.0	3.1	0.69	<5.0
	06/15/11	300.0/8015B	1.4	380	<0.5	<2.0	<2.5	3.3	1.8	0.97	<5.0
	03/02/11	300.0/8015B	1.3	360	<1.0	<1.0	<2.5	3.7	2.8	1.3	<5.0
	11/02/10	300.0/8015B	1.7	230	<1.0	<1.0	<0.5	7.8	5.1	0.57	
	09/15/10	300.0/8015B	1.3	220	<0.5	<0.5	0.01	6.0	5.3	1.0	
	06/10/10	300.0/8015B	1.2	340	<1.0	<1.0	<2.5	8.7	6.3	1.3	
	03/08/10	300.0/8015B	1.4	320	<1.0	<1.0	<0.05	11	3.8	1.0	
NAPIS-3	10/21/19	300.0/8015D	0.67	440	<0.5	4.9	<2.5	200	<0.4	<0.05	<2.5
	08/22/19	300.0/8015D	0.63	420	0.17	0.63	<2.5	170	<1.0	0.026	<5.0
	05/28/19	300.0/8015DS	0.69	420	<0.5	<2.5	<2.5	170	<1.0	0.022	<5.0
	04/09/19	300.0/8015D	0.65	390	<0.5	5.8	<2.5	170	<1.0	0.067	<5.0
	04/30/18	300.0/8015D	0.62	190	<1.0	<1.0	<2.5	47	<1.0	0.8	<5.0
	02/09/18	300.0/8015D	0.68	220	0.31	0.31	2.1	61	<1.0	0.088	<5.0
	12/04/17	300.0/8015D	0.62	260	1.2	1.2	<2.5	89	<1.0	0.09	<5.0
	09/05/17	300.0/8015D	NA	NA	NA	NA	NA	NA	<1.0	0.055	<5.0
	06/02/17	300.0/8015D	0.72	240	0.56	0.56	<0.5	88	<1.0	0.063	<5.0
	02/21/17	300.0/8015D	1.3	350	1.9	1.9	<0.5	150	1.5	<0.05	<5.0
	11/14/16	300.0/8015D	1.7	320	<0.5	3.5	0.9	230	0.89	<0.05	<5.0
	09/01/16	300.0/8015D	2.1	310	<0.5	5.0	1.1	210	<1.0	<0.05	<5.0
	06/07/16	300.0/8015D	0.56	870	14	14	<0.5	320	<1.0	<0.05	<5.0
	03/01/16	300.0/8015D	0.53	850	14	14	<0.5	350	<1.0	<0.05	<5.0
	10/28/15	300.0/8015B	0.6	880	15	15	<0.5	420	<1.0	<0.05	<5.0
	08/11/15	300.0/8015D	0.28	920	24	24	<0.5	380	<1.0	<0.05	<5.0
	06/02/15	300.0/8015D	<1.0	790	15	15	<5.0	440	<1.0	NA	<5.0
	03/10/15	300.0/8015B	0.42	940	<2.0	20	<0.5	430	<1.0	<0.05	<5.0
	11/13/14	300.0/8015B	0.35	890	19	19	<0.5	400	<1.0	<0.05	<5.0
	09/11/14	300.0/8015B	1.1	160	1.1	1.1	<0.5	61	<1.0	<0.05	<5.0
	06/05/14	300.0/8015B	0.3	910	19	19	<0.5	400	<1.0	<0.05	<5.0
	03/10/14	300.0/8015B	<0.5	920	<0.5	20	<2.5	430	<1.0	<0.05	<5.0
	11/12/13	300.0/8015B	0.36	990	<2.0	20	<2.5	380	<1.0	<0.05	NA
	09/03/13	300.0/8015B	0.27	980	20	20	<0.5	410	<1.0	<0.05	<5.0
	06/12/13	300.0/8015B	<1.0	940	17	17	<5.0	400	<1.0	<0.05	<5.0
	03/18/13	300.0/8015B	1.3	940	17	17	<2.5	380	<1.0	<0.1	<5.0
	11/28/12	300.0/8015B	0.68	880	<0.5	14	<2.5	280	<1.0	<0.1	<5.0
	10/02/12	300.0/8015B	0.84	990	20	20	<2.5	400	<1.0	<0.05	<5.0
	06/12/12	300.0/8015B	0.55	1000	<0.5	19	<2.5	450	<1.0	<0.05	<5.0
	03/20/12	300.0/8015B	0.59	970	<0.5	19	<2.5	390	<1.0	<0.05	<5.0
	12/14/11	300.0/8015B	0.29	1100	19	19	<10	420	<1.0	<0.05	<5.0
	09/27/11	300.0/8015B	<0.5	1000	49	49	<2.5	400	<1.0	<0.05	<5.0
	06/15/11	300.0/8015B	1.5	530	<0.5	3.5	<2.5	170	<1.0	<0.05	<5.0
	03/02/11	300.0/8015B	0.44	1100	14	14	<0.05	420	<1.0	<0.05	<5.0
	11/02/10	300.0/8015B	0.48	1100	18	18	<0.5	430	<1.0	<0.05	
	09/15/10	300.0/8015B	NL	1040	24.1	24.1	0.023	290	<1.0	<0.05	
	06/10/10	300.0/8015B	1.5	260	<1.0	<1.0	<0.5	39	1.8	0.89	
	03/08/10	300.0/8015B	0.46	410	5.5	5.5	<0.5	400	<1.0	<0.5	



## 8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1.0	10	NE	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (MAR 2019)			NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD									
KA-3	10/21/19	300.0/8015D	0.969	240	<0.5	<0.5	<2.5	12	<0.4	0.2	<2.5
	08/22/19	300.0/8015D	0.98	240	<0.5	<0.5	<2.5	9	1.2	0.99	<5.0
	05/28/19	300.0/8015D	1	230	<0.5	<0.5	<2.5	9	1.2	0.99	<5.0
	04/09/19	300.0/8015D	0.88	210	<0.5	<0.5	<2.5	15	0.53	0.65	<5.0
	04/30/18	300.0/8015D	0.79	170	<1.0	<1.0	<2.5	18	0.65	2.9	<5.0
	02/09/18	300.0/80158D	0.8	190	<1.0	<1.0	2.1	30	<1.0	0.12	<5.0
	12/04/17	300.0/8015D	0.84	200	<1.0	<1.0	<2.5	27	0.66	0.15	<5.0
	09/05/17	300.0/8015D	NA	NA	NA	NA	NA	NA	<1.0	0.12	<5.0
	06/01/17	300.0/8015D	0.66	220	0.34	0.34	<0.5	41	<1.0	0.068	<5.0
	02/21/17	300.0/8015D	1.0	160	<1.0	<1.0	<0.5	26	<1.0	0.20	<5.0
	11/14/16	300.0/8015D	0.93	190	<1.0	<1.0	<0.5	35	<1.0	0.13	<5.0
	09/01/16	300.0/8015D	0.86	210	<0.1	<0.5	<0.5	36	<1.0	0.18	<5.0
	06/07/16	300.0/8015D	1	190	<1.0	<1.0	<0.5	25	<1.0	0.11	<5.0
	03/03/16	300.0/8015D	0.96	110	<0.1	0.71	<0.5	34	<1.0	0.063	<5.0
	10/28/15	300.0/8015B	1.1	120	<1.0	<1.0	<0.5	57	<1.0	<0.05	<5.0
	08/11/15	300.0/8015D	1	130	2.8	2.8	<0.5	52	<1.0	<0.05	<5.0
	06/02/15	300.0/8015D	1.5	150	<2.0	<2.0	<5.0	42	<1.0	NA	<5.0
	03/10/15	300.0/8015D	1.1	120	<0.1	0.53	<0.5	43	<1.0	<0.05	<5.0
	11/11/14	300.0/8015B	1.1	160	<1.0	<1.0	<0.5	54	<1.0	<0.05	NL
	09/11/14	300.0/8015B	0.45	760	19	19	<0.5	420	<1.0	<0.05	<5.0
	06/05/14	300.0/8015B	1.0	180	7.7	7.7	<0.5	95	<1.0	<0.05	<5.0
	03/10/14	300.0/8015B	1.1	140	<0.5	13	<2.5	72	<1.0	<0.05	<5.0
	11/12/13	300.0/8015B	1.3	110	0.2	9.3	<0.5	54	<1.0	<0.05	NA
	09/03/13	300.0/8015B	1.1	170	20	20	<0.5	39	<1.0	<0.05	<5.0
	06/12/13	300.0/8015B	1.4	190	<1.0	<1.0	<5.0	33	<1.0	0.072	<5.0
	03/18/13	300.0/8015B	1.8	180	2.4	2.4	<2.5	81	<1.0	0.063	<5.0
	11/28/12	300.0/8015B	0.98	870	2.8	9.9	<2.5	270	<1.0	<0.1	<5.0
	08/21/12	300.0/8015B	<2.0	250	<0.1	0.31	<0.5	43	<1.0	0.1	<5.0
	06/12/12	300.0/8015B	1.3	710	2.1	11	<2.5	220	<1.0	0.14	<5.0
	03/20/12	300.0/8015B	2.0	440	<1.0	15	<2.5	220	1.8	0.16	<5.0
	12/14/11	300.0/8015B	1.3	260	<1.0	<1.0	<0.5	38	<1.0	0.15	
	09/27/11	300.0/8015B	1.5	290	48	48	<2.5	48	2.1	0.35	
	06/15/11	300.0/8015B	0.51	970	<0.5	18	<0.5	370	<1.0	<0.25	
	03/02/11	300.0/8015B	1.2	600	4.3	4.3	<0.5	150	<1.0	<0.25	
	11/02/10	300.0/8015B	1.7	260	<1.0	<1.0	<5.0	38	1.7	0.68	
	09/15/10	300.0/8015B	1.4	277	<0.5	<0.5	0.013	37	3.0	1.9	
	06/10/10	300.0/8015B	0.38	1100	17	17	<0.05	390	<1.0	<0.05	
	03/08/10	300.0/8015B	1.6	410	5.5	5.5	<0.05	90	<1.0	0.47	

## DEFINITIONS

NA = Not analyzed; NE = Not established

BOLD values represent values above the applicable standard

## STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

## NOTES

1) 12/14/11 - General Chemistry parameters missed this quarter. Notified NMED and instructed to re-sample for general chemistry parameters only.

2) Resampled for General Chemistry parameters only.



### 8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3 Total Metals Analytical Result Summary

STANDARDS												
PARAMETERS												
		Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL		0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
NMED Tap Water (Rev 2. JUN 2019)		0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD										
NAPI-S-1	06/01/17	0.0018	0.15	<0.006	<0.006	<0.020	0.000051	0.14	0.0045	<0.0002	0.015	0.019
	02/21/17	0.0042	0.13	<0.006	<0.006	0.14	0.00028	0.26	0.0085	<0.0002	NA	0.018
	11/14/16	0.0036	0.1300	<0.006	<0.006	0.550	0.0008	0.250	0.0072	0.0001	0.034	0.0053
	09/01/16	0.0041	0.1400	<0.006	<0.006	0.290	0.0005	0.250	<0.02	NA	0.019	0.0028
	06/07/16	<0.01	0.1600	<0.006	<0.006	0.820	0.0010	0.260	0.0078	0.0001	0.015	0.0048
	10/28/15	<0.005	0.1400	<0.006	<0.006	0.590	0.0008	0.130	0.0054	<0.0002	0.013	<0.01
	08/11/15	<0.01	0.1100	<0.006	<0.006	0.720	0.0011	0.099	<0.01	<0.0002	0.025	0.0100
	06/02/15	<0.01	0.1500	<0.006	<0.006	0.600	<0.005	0.250	<0.01	<0.0002	0.014	<0.01
	03/10/15	<0.01	0.1300	<0.006	<0.006	0.460	<0.001	0.200	<0.01	<0.0002	0.013	<0.01
	11/11/14	<0.01	0.1300	<0.006	<0.006	0.790	0.0010	0.240	<0.01	<0.0002	0.012	0.0100
	09/11/14	<0.01	0.1300	<0.006	<0.006	0.240	<0.01	0.120	0.0120	<0.0002	0.012	<0.01
	03/05/14	<0.005	0.1500	<0.006	<0.006	1.200	<0.005	0.120	0.100	<0.0002	0.014	0.0120
	03/10/14	0.0018	0.1400	<0.006	<0.006	0.280	<0.001	0.095	0.0055	<0.0002	0.013	0.0120
	11/12/13	0.0034	0.1900	<0.006	<0.006	0.360	<0.001	0.170	0.0100	<0.0002	0.012	0.0110
	09/03/13	0.0026	0.1700	<0.006	<0.006	0.570	<0.001	0.089	0.0073	<0.0002	0.010	<0.01
	06/12/13	0.0027	0.1300	<0.006	<0.006	0.250	NL	0.068	0.0076	<0.0002	0.011	<0.01
	03/18/13	<0.0025	0.1300	<0.006	<0.006	1.400	<0.005	0.140	0.0039	<0.0002	0.017	0.0110
	11/28/12	<0.0025	0.1200	<0.006	<0.006	1.100	<0.005	0.099	0.0027	<0.001	0.030	0.0130
	08/21/12	<0.0025	0.1300	<0.006	<0.006	<0.006	0.066	<0.005	0.018	<0.0002	0.009	<0.01
	06/02/12	0.0031	0.2700	0.0068	<0.06	<0.06	7.500	<0.005	0.360	0.0052	<0.001	0.032
03/20/12	<0.0025	0.1300	<0.006	<0.006	<0.006	0.990	<0.005	0.039	0.0053	<0.0002	0.012	<0.01
12/14/11	<0.0025	0.1900	<0.006	<0.006	2.900	<0.005	0.120	0.0033	<0.0002	0.019	0.0170	
09/27/11	<0.0025	0.1300	<0.006	<0.006	0.590	<0.005	0.092	0.0067	<0.0002	0.046	<0.01	
6/15/2011	0.0040	0.1900	<0.006	<0.006	2.200	<0.005	0.058	0.0100	<0.0002	0.013	0.0120	
3/2/2011	<0.0025	0.1700	<0.006	<0.006	1.000	<0.005	0.035	<0.05	NA	0.021	<0.01	
11/02/10	<0.02	0.2600	0.0062	<0.006	<0.006	6.400	<0.005	0.160	<0.05	<0.0002	0.045	0.0270
09/15/10	<0.02	0.1900	<0.006	<0.006	<0.006	0.560	<0.005	0.044	<0.0002	0.018	<0.02	
06/08/10	<0.02	0.1800	<0.006	<0.006	NA	NA	<0.005	NA	<0.05	<0.0002	NA	NA
03/08/10	<0.001	0.1330	0.0011	0.0011	0.0026	0.548	<0.001	0.015	<0.001	<0.0001	0.273	0.0049



8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Total Metals Analytical Result Summary

PARAMETERS											
	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL	0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
NMED Tap Water (Rev 2. JUN 2019)	0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)	0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
NAPIS-2											











8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Total Metals Analytical Result Summary

STANDARDS		PARAMETERS										
		Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10
	40 CFR 141.62 MCL	0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
	NMED Tap Water (Rev 2. JUN 2019)	0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
	EPA RSL for Tap Water (NOV 2019)	0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD										

DEFINITIONS

NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
a) Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1  
EPA Regional Screening Level (RSL) Summary Table



8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Dissolved Metals Analytical Result Summary

PARAMETERS											
	Arsenic (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0	
	40 CFR 141.62 MCL	0.01	0.1	1.3	NE	0.015	NE	0.05	0.03	NE	
	NMED Tap Water (Rev 2. JUN 2019)	0.000855	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
	EPA RSL for Tap Water (NOV 2019)	0.000052	22	0.8	14	0.015	0.43	0.1	0.004	6	
	WELL ID	DATE SAMPLED	METHOD								
	NAPIS-1	06/02/17	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.14	0.0072	0.013	0.019
		02/21/17	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.09	0.0082	NA	0.018
		11/14/16	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.093	0.012	0.036	0.004
		09/01/16	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.130	0.008	0.013	0.370
		06/07/16	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.110	0.008	0.015	<0.01
		10/28/15	200.7/200.8	<0.006	<0.006	<0.02	<0.0005	0.061	<0.01	0.013	<0.01
		08/11/15	200.7/200.8	<0.006	<0.006	<0.02	<0.0025	0.028	0.005	0.020	<0.01
		06/02/15	200.7/200.8	<0.006	<0.006	<0.02	<0.01	0.067	<0.01	0.013	0.010
		03/10/15	200.7/200.8	<0.006	<0.006	<0.02	<0.001	0.067	<0.02	0.013	<0.01
		11/11/14	200.7/200.8	<0.006	<0.006	<0.02	<0.001	0.065	<0.01	0.012	0.050
		09/11/14	200.7/200.8	<0.006	<0.006	<0.02	<0.01	0.130	0.012	<0.01	0.010
		06/05/14	200.7/200.8	<0.006	<0.006	0.0250	<0.001	0.059	0.013	0.010	<0.01
		03/10/14	200.7/200.8	<0.006	<0.006	<0.02	<0.001	0.053	<0.005	0.013	0.017
		11/12/13	200.7/200.8	<0.006	<0.006	<0.02	<0.005	0.071	0.011	0.011	<0.01
		09/09/13	200.7/200.8	<0.005	<0.03	<0.1	<0.005	0.064	0.009	<0.01	<0.05
		06/12/13	200.7/200.8	0.0034	<0.006	0.0570	<0.001	0.027	0.011	0.011	<0.01
		03/18/13	200.7/200.8	0.0016	<0.006	<0.02	<0.005	0.004	0.003	0.017	<0.01
		11/28/12	200.7/200.8	0.0019	<0.006	<0.02	<0.001	0.010	0.004	0.029	0.013
		08/21/12	200.7/200.8	0.0021	<0.006	<0.02	<0.005	0.011	0.004	0.011	0.017
		06/12/12	200.7/200.8	0.0023	<0.006	0.0250	<0.005	0.004	0.006	0.014	0.014
		03/20/12	200.7/200.8	0.0018	<0.006	<0.02	<0.005	0.006	0.006	0.010	0.022
		12/14/11	200.7/200.8	0.0017	<0.006	0.2700	<0.005	0.007	0.004	0.021	<0.01
		09/27/11	200.7/200.8	0.0029	<0.006	<0.02	<0.005	0.056	0.009	0.032	0.011
		06/15/11	200.7/200.8	0.0047	<0.006	<0.020	<0.005	0.002	0.017	0.016	0.028
03/02/11		200.7/200.8	0.0013	<0.006	0.0320	<0.005	<0.002	<0.05	0.017	<0.01	
11/02/10		6010B	<0.1	<0.006	0.0570	<0.005	0.016	<0.25	0.034	NA	
09/15/10		6010B	<0.02	<0.006	0.2900	0.0064	0.007	<0.05	0.011	NA	
06/08/10		6010B	<0.2	<0.006	NA	<0.005	NA	<0.05	NA	NA	
03/08/10		6020A	0.0011	<0.001	<0.01	<0.001	<0.001	0.000	0.028	0.026	



8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Dissolved Metals Analytical Result Summary

PARAMETERS											
		Arsenic (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0	
40 CFR 141.62 MCL		0.01	0.1	1.3	NE	0.015	NE	0.05	0.03	NE	
NMED Tap Water (Rev 2. JUN 2019)		0.000855	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)		0.000052	22	0.8	14	0.015	0.43	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD									
NAPIS-2	10/21/19	200.7/200.8	0.0036	<0.006	<0.006	1.2	<0.0005	0.79	0.0003	NA	0.007
	08/22/19	200.7/200.8	0.0030	<0.006	<0.006	1.4	<0.0005	0.82	0.0003	0.00019	0.008
	05/28/19	200.7/200.8	0.0025	<0.006	<0.006	0.4	<0.0005	0.78	<0.001	0.00022	0.016
	04/09/19	200.7/200.8	0.0030	<0.006	0.0014	0.3	0.0001	0.68	0.0002	0.00081	0.043
	04/30/18	200.7/200.8	0.0045	1.6	<0.006	1.8	<0.0005	0.91	0.0049	0.00016	0.005
	02/09/18	200.7/200.8	0.0047	<0.006	<0.006	1.6	<0.0005	1.10	0.0040	0.00029	0.005
	12/04/17	200.7/200.8	0.0049	<0.006	<0.002	1.8	<0.0005	0.94	0.0045	0.00017	0.010
	09/05/17	200.7/200.8	0.0054	0.0017	<0.006	0.56	<0.0025	0.89	<0.02	0.00054	0.026
	06/01/17	200.7/200.8	0.0035	<0.006	<0.006	0.52	0.00021	0.86	<0.01	0.00070	0.018
	02/21/17	200.7/200.8	0.0053	<0.006	<0.006	0.88	<0.0005	0.97	0.0047	NA	0.020
	11/14/16	200.7/200.8	0.0085	<0.006	<0.006	1.5	0.0003	1.1	0.0078	0.0005	<0.01
	09/01/16	200.7/200.8	0.0075	<0.006	<0.006	1.6	<0.0005	1.1	0.0066	0.0003	0.170
	06/07/16	200.7/200.8	0.0086	<0.006	<0.006	1.8	<0.0005	1.1	0.0062	0.0009	0.055
	10/28/15	200.7/200.8	0.0084	<0.006	<0.006	1.8	<0.0005	1.2	0.0097	<0.0005	0.022
	08/11/15	200.7/200.8	0.0072	<0.006	<0.006	1.4	<0.0025	1.2	<0.005	<0.0025	<0.01
	06/02/15	200.7/200.8	<0.01	<0.006	<0.006	1.2	<0.01	1.1	<0.01	<0.01	<0.01
	03/10/15	200.7/200.8	<0.01	<0.006	<0.006	1.9	<0.001	1.0	<0.01	<0.001	<0.01
	11/11/14	200.7/200.8	0.0076	<0.006	<0.006	1.8	<0.001	1.3	0.0062	<0.001	0.019
	09/11/14	200.7/200.8	0.0070	<0.006	<0.006	1.6	<0.01	1.2	0.0110	<0.01	0.047
	06/05/14	200.7/200.8	0.0064	<0.006	<0.006	2.6	<0.005	1.4	0.0100	<0.001	<0.01
	03/10/14	200.7/200.8	0.0053	<0.006	<0.006	1.8	<0.001	1.2	<0.005	<0.001	0.012
	11/12/13	200.7/200.8	0.0077	<0.006	<0.006	1.8	<0.001	1.3	0.0080	<0.001	<0.01
	09/09/13	200.7/200.8	0.0069	<0.006	<0.006	2.6	<0.005	1.3	0.0060	<0.01	0.021
	06/12/13	200.7/200.8	0.0068	<0.006	<0.006	1.7	<0.001	1.6	0.0071	<0.001	0.010
	03/18/13	200.7/200.8	0.0062	<0.006	<0.006	1.1	<0.005	1.2	0.0024	<0.002	<0.01
	11/28/12	200.7/200.8	0.0083	<0.006	<0.006	2.9	<0.001	1.8	0.0034	<0.001	0.011
	08/21/12	200.7/200.8	0.0140	<0.006	<0.006	1.9	<0.005	1.6	3.4000	<0.001	0.016
	06/12/12	200.7/200.8	0.0089	<0.006	<0.006	2.7	<0.005	1.6	0.0047	<0.001	0.180
	03/20/12	200.7/200.8	0.0093	<0.006	<0.006	3.0	<0.005	1.5	0.0042	<0.001	0.070
	12/14/11	200.7/200.8	0.0089	<0.006	<0.006	3.2	<0.005	1.3	0.0028	<0.001	<0.01
	09/27/11	200.7/200.8	0.0110	<0.006	<0.006	2.2	<0.005	1.2	0.0050	<0.001	0.015
	06/15/11	200.7/200.8	0.0120	<0.006	<0.006	3.2	<0.005	1.3	0.0095	<0.001	0.041
	03/02/11	200.7/200.8	0.0130	<0.006	<0.006	4.8	<0.005	<0.002	<0.05	<0.001	<0.01
	11/02/10	6010B	<0.1	<0.006	<0.006	2.9	<0.005	1.2	<0.05	NA	NA
	09/15/10	6010B	<0.02	<0.006	<0.006	3.7	<0.005	1.0	<0.05	<0.001	NA
	06/10/10	6010B	<0.02	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	03/08/10	6020A	0.0047	<0.001	<0.001	3.8	<0.001	1.1	<0.001	<0.001	0.053



8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Dissolved Metals Analytical Result Summary

PARAMETERS									
		Arsenic (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Zinc (mg/L)
STANDARDS									
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	0.05	1.0	1.0	0.015	0.2	0.05	10.0
40 CFR 141.62 MCL		0.01	0.1	1.3	NE	0.015	NE	0.05	NE
NMED Tap Water (Rev 2. JUN 2019)		0.000855	0.0057	0.7898	13.8	NE	2.02	0.0987	5.96
EPA RSL for Tap Water (NOV 2019)		0.000052	22	0.8	14	0.015	0.43	0.1	6
WELL ID	DATE SAMPLED	METHOD							
NAPIS-3	10/21/19	200.7/200.8	0.0019	<0.006	0.02	0.00011	0.061	0.0048	NA
	08/22/19	200.7/200.8	0.0014	<0.006	0.39	0.00014	0.063	0.0025	0.036
	05/28/19	200.7/200.8	0.0014	<0.006	0.069	0.00033	0.054	0.0032	0.033
	04/09/19	200.7/200.8	0.0011	<0.006	0.015	0.00021	0.17	0.0033	0.022
	04/30/18	200.7/200.8	0.0012	<0.006	0.0400	<0.0005	0.14	0.0029	0.022
	02/09/18	200.7/200.8	0.0026	<0.006	<0.02	0.00028	0.12	0.0045	0.025
	12/04/17	200.7/200.8	<0.010	<0.006	<0.020	0.00024	0.13	<0.01	0.025
	09/05/17	200.7/200.8	0.0041	<0.006	0.14	0.00058	0.12	0.0093	0.043
	06/02/17	200.7/200.8	0.0021	<0.006	<0.020	0.0005	0.10	0.0060	0.030
	02/21/17	200.7/200.8	0.0039	0.0015	0.23	0.0011	0.10	0.0083	NA
	11/14/16	200.7/200.8	0.0070	0.0031	1.40	0.0063	0.3600	0.0160	0.034
	09/01/16	200.7/200.8	0.0039	<0.006	0.31	0.0010	0.0110	0.0096	0.023
	06/07/16	200.7/200.8	0.0072	0.0038	0.23	0.0016	0.0033	0.0220	0.041
	10/28/15	200.7/200.8	<0.05	<0.006	<0.02	<0.0005	0.0081	<0.05	0.040
	08/11/15	200.7/200.8	<0.01	<0.006	0.04	<0.0025	0.0029	0.0200	0.038
	06/02/15	200.7/200.8	<0.01	<0.006	0.06	<0.01	0.0038	0.0160	0.043
	03/10/15	200.7/200.8	<0.02	<0.006	<0.02	<0.001	<0.002	<0.05	0.036
	11/13/14	200.7/200.8	<0.01	<0.006	<0.02	<0.01	<0.002	<0.05	0.039
	09/11/14	200.7/200.8	<0.005	<0.006	<0.02	<0.01	0.4700	0.0089	0.014
	06/05/14	200.7/200.8	0.0110	0.0073	2.60	<0.01	0.0580	0.0450	0.034
	03/10/14	200.7/200.8	<0.01	<0.006	0.24	<0.001	0.0073	0.0110	0.039
	11/12/13	200.7/200.8	0.0076	<0.006	0.15	<0.001	0.0047	0.0290	0.036
	09/09/13	200.7/200.8	0.0063	<0.006	0.17	<0.001	0.0075	0.0230	0.041
	06/12/13	200.7/200.8	0.0077	<0.006	0.57	0.0014	0.0380	0.0320	0.038
	03/18/13	200.7/200.8	0.0048	<0.006	4.60	<0.005	0.2500	0.0120	0.037
	11/28/12	200.7/200.8	0.0052	<0.006	15.00	0.0100	0.3900	0.0120	0.035
	10/02/12	200.7/200.8	0.0040	<0.006	3.20	<0.005	0.1400	0.0130	0.038
	06/12/12	200.7/200.8	0.0050	<0.006	0.02	<0.005	<0.002	0.0190	0.039
	03/20/12	200.7/200.8	0.0039	0.0079	0.51	<0.005	0.0140	0.0170	0.032
	12/14/11	200.7/200.8	0.0037	<0.006	0.12	<0.005	0.0047	0.0130	0.040
	09/27/11	200.7/200.8	0.0064	<0.006	0.14	<0.005	0.0035	0.0250	0.038
	06/15/11	200.7/200.8	0.0085	<0.006	0.06	<0.005	0.9200	0.0190	0.013
	03/02/11	200.7/200.8	<0.001	<0.006	<0.02	<0.005	<0.002	<0.05	0.039
	11/02/10	6010B	<0.02	<0.006	0.03	<0.005	0.0100	<0.05	0.035
	09/15/10	6010B	<0.02	<0.006	0.02	<0.005	0.0021	<0.05	0.032
	06/10/10	6010B	<0.02	<0.006	NA	<0.005	NA	<0.05	NA
	03/08/10	6020A	0.0031	0.0027	<0.01	<0.001	0.0014	0.0036	0.030
				0.0022	<0.01	<0.001	0.0014	0.0036	0.034



8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Dissolved Metals Analytical Result Summary

PARAMETERS											
		Arsenic (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0	
40 CFR 141.62 MCL		0.01	0.1	1.3	NE	0.015	NE	0.05	0.03	NE	
NMED Tap Water (Rev 2. JUN 2019)		0.000855	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)		0.000052	22	0.8	14	0.015	0.43	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD									
KA-3	10/21/19	200.7/200.8	0.0080	<0.006	<0.006	0.370	0.0001	1.5	0.0004	NA	0.023
	08/22/19	200.7/200.8	0.0060	<0.006	<0.006	0.810	0.0001	1.7	0.0003	0.0051	0.008
	05/28/19	200.7/200.8	0.0052	<0.006	<0.006	0.370	0.0001	1.6	<0.001	0.0073	0.009
	04/09/19	200.7/200.8	0.0033	<0.006	0.0038	0.120	0.000094	1.5	0.00029	0.0093	0.050
	04/30/18	200.7/200.8	0.0022	<0.006	<0.006	0.046	<0.0005	1.2	0.0036	0.0086	0.007
	02/09/18	200.7/200.8	0.0033	<0.006	0.0044	0.044	0.0002	1.4	0.0085	0.0110	0.009
	12/04/17	200.7/200.8	0.0033	<0.006	<0.006	0.045	<0.0005	1.3	<0.010	0.0076	0.011
	09/05/17	200.7/200.8	0.0039	<0.006	<0.006	0.088	<0.0005	1.3	<0.020	0.010	0.046
	06/01/17	200.7/200.8	0.0028	<0.006	<0.006	0.056	<0.0005	1.1	0.0047	0.015	0.026
	02/21/17	200.7/200.8	0.0019	<0.006	<0.006	0.17	<0.0005	1.1	0.0035	NA	0.028
	11/14/16	200.7/200.8	0.0036	<0.006	<0.006	0.1200	<0.0005	1.30	0.0071	0.0099	0.0031
	09/01/16	200.7/200.8	0.0029	<0.006	<0.006	0.0590	<0.0005	1.90	0.0049	0.0075	0.0410
	06/07/16	200.7/200.8	0.0038	<0.006	<0.006	0.1000	<0.0005	1.50	0.0058	0.0095	0.0052
	10/28/15	200.7/200.8	<0.005	<0.006	<0.006	<0.02	<0.0005	0.61	<0.01	0.0120	<0.01
	08/11/15	200.7/200.8	<0.005	<0.006	<0.006	<0.02	<0.0025	0.64	<0.005	0.0180	0.2800
	06/02/15	200.7/200.8	<0.01	<0.006	<0.006	<0.02	<0.01	0.77	<0.01	0.0190	<0.01
	03/10/15	200.8	0.0020	<0.006	<0.006	<0.02	<0.001	0.69	<0.01	0.0180	0.0100
	11/11/14	200.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/11/14	200.7/200.8	0.0110	<0.006	<0.006	<0.02	<0.01	<0.002	0.0350	0.0390	<0.01
	06/05/14	200.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	03/10/14	200.7/200.8	<0.005	<0.006	<0.006	<0.02	<0.001	0.38	<0.005	0.0480	0.0120
	11/12/13	200.7/200.8	0.0036	<0.006	<0.006	<0.02	<0.001	0.37	0.0091	0.0200	0.0110
	09/09/13	200.7/200.8	<0.005	<0.006	<0.006	<0.02	<0.005	0.37	0.0056	0.0110	0.0300
	06/12/13	200.7/200.8	0.0030	<0.006	<0.006	<0.02	<0.001	0.31	0.0077	0.0150	<0.01
	03/18/13	200.7/200.8	0.0019	<0.006	<0.006	<0.02	<0.005	0.53	0.0029	0.0190	0.0220
	11/28/12	200.7/200.8	0.0046	<0.006	<0.006	4.2000	0.0046	0.61	0.0087	0.0240	0.0210
	08/21/12	200.7/200.8	0.0031	<0.006	<0.006	<0.02	<0.005	0.39	0.0047	0.0130	0.0220
	06/12/12	200.7/200.8	0.0038	<0.006	<0.006	0.1500	<0.005	0.38	0.0072	0.0150	0.0120
	03/20/12	200.7/200.8	0.0033	0.0110	<0.006	0.3500	<0.005	0.35	0.0085	0.0180	0.0330
	12/14/11	200.7/200.8	0.0034	<0.006	<0.006	0.1400	<0.005	0.95	0.0021	0.0042	<0.01
	09/27/11	200.7/200.8	0.0060	<0.006	<0.006	0.0830	<0.005	0.89	0.0057	0.0067	0.0180
	06/15/11	200.7/200.8	0.0100	<0.006	<0.006	<0.02	<0.005	0.00	0.0420	0.0340	0.0440
	03/02/11	200.7/200.8	0.0062	<0.006	<0.006	0.1100	<0.005	0.04	<0.05	0.0100	<0.01
	11/02/10	6010B	<0.1	<0.006	<0.006	0.3200	<0.005	1.40	<0.05	NA	NA
	09/15/10	6010B	<0.02	<0.006	<0.006	0.5600	<0.005	1.20	<0.05	0.0010	NA
	06/10/10	6010B	<0.02	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	03/08/10	6020A	0.0098	<0.001	0.0043	1.5500	<0.001	1.86	0.0010	0.0070	0.0382











8.8.4 NAPIS-1, NAPIS-2, NAPIS-3, KA-3  
Volatile and Semi-Volatile Organic Compound Analytical Result Summary

PARAMETERS																		
STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz (a)anthracene (mg/L)	Benzoic Acid (mg/L)	Bis(2- ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	1,4-Dioxane (mg/L)	
WQCC 20NMAC 6.2.3103 (DECEMBER 2019)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	0.005	NE	
40 CFR 141.62 MCL			NE	NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
NMED Tap Water (Rev 2. JUN 2019)			0.535	NE	1.72	0.00012	NE	0.0556	0.288	0.0114	0.035	NE	NE	0.00165	0.17	5.76	0.00459	
EPA RSL for Tap Water (NOV 2019)			0.53	0.13	1.8	0.00003	75	0.056	0.29	0.011	0.036	0.93	0.93	0.00017	NE	5.8	0.00046	
METHOD			WELL ID	DATE SAMPLED														
NAPIS-2	10/21/19	8270D/8310	0.006	<0.0005	0.00037	<0.001	<0.005	0.00073	0.00262	0.0229	0.0375	<0.005	<0.005	0.0176	0.0007	0.0024	0.00229	
	08/22/19	8270/8260B	0.0048	<0.01		<0.01	<0.02	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	0.013	<0.01	<0.01		
	05/28/19	8270/8260B/8011/504.1	0.0049	<0.01		<0.01	<0.02	<0.01	0.004	0.02	<0.01	<0.01	<0.01	0.0094	<0.01	<0.01		
	04/09/19	8270/8260B	<0.01	<0.01		<0.01	0.0065	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.029		
	04/30/18	8260B	NA	NA		NA		NA	NA	0.011	0.0017	NA	NA	0.0078	NA	NA		
	02/09/18	8260B	NA	NA		NA		NA	NA	0.0055	0.0014	NA	NA	0.0044	NA	NA		
	12/04/17	8260B	NA	NA		NA		NA	NA	0.0051	0.00034	NA	NA	0.0037	NA	NA		
	09/05/17	8260B	<0.05	<0.05		<0.05		0.025	<0.05	0.0023	0.00048	<0.05	<0.05	0.0026	<0.05	<0.05		
	06/01/17	8260B	<0.01	<0.01		<0.01		0.0067	<0.01	0.0013	0.00023	<0.01	<0.01	0.0018	<0.01	<0.01		
	02/21/17	8260B	<0.01	<0.01		<0.01		0.008	<0.01	0.0023	0.00069	<0.01	<0.01	0.0023	<0.01	<0.01		
	11/14/16	8260B	NA	NA		NA		NA	NA	0.00017	<0.004	NA	NA	0.00014	NA	NA		
	09/01/16	8260B	NA	NA		NA		NA	NA	0.002	<0.004	NA	NA	0.0021	NA	NA		
	06/07/16	8260B	NA	NA		NA		NA	NA	0.0012	0.00044	NA	NA	0.0006	NA	NA		
	03/01/16	8260B	NA	NA		NA		NA	NA	<0.004	<0.004	NA	NA	<0.002	NA	NA		
	10/28/15	8260B	NA	NA		NA		NA	NA	0.0061	<0.004	NA	NA	0.0029	NA	NA		
	08/11/15	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0033	<0.01	<0.01		
	06/02/15	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	03/10/15	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	11/01/14	8270C	<0.05	<0.05		<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	09/11/14	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01		
	06/05/14	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01		
	03/10/14	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	11/12/13	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	11/12/13	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	09/03/13	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	0.0094	<0.004	<0.01	<0.01	0.0048	<0.01	<0.01	
	06/12/13	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/18/13	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	12/05/12 <sup>1</sup>	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	08/21/12	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/12/12	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	
	03/20/12	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	0.015	<0.01	0.015	0.034	<0.01	<0.01	0.078	
	12/14/11	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	0.01	<0.01	<0.01		<0.01	<0.01		
	09/27/11	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	0.012	<0.01	<0.01		0.011	<0.01		
	06/15/11	8270C/8260B	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	03/02/11	8270C	<0.01	<0.01		<0.01		<0.01	0.01	0.012	NL	<0.01	<0.01		0.015	<0.01		
	11/02/10	8270C	0.01	<0.01		<0.01		<0.01	<0.01	0.011	NL	<0.01	<0.01		<0.01	<0.01		
	09/15/10	8270C	<0.01	<0.01		<0.01		<0.01	<0.01	<0.05	NL	<0.01	<0.01		<0.01	<0.01		
	06/10/10	8310	<0.0025	NL		<0.00007		NL	NL	0.011	0.033	<0.002	NL		0.089	0.005		
	03/08/10	8270C/8260B	<0.05	<0.05		<0.05		<0.05	<0.05	<0.05	NL	<0.05	<0.05		0.0036	<0.05		



#### 8.8.4 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

## Volatile and Semi-Volatile Organic Compound Analytical Result Summary

[illegible]























PARAMETERS																
1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Bromodichloro methane (mg/L)	Acetone (mg/L)	cis-1,2-DCE (mg/L)	4-Chloro toluene (mg/L)	1,1-Dichloro ethane (mg/L)	1,1-Dichloro ethene (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	tert-Butyl benzene (mg/L)
NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	0.07	NE	0.025	0.007	NE	NE	NE	NE
NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	0.07	NE	NE	0.007	NE	NE	NE	NE
NE	NE	0.0017	0.0000747	0.00165	0.0114	0.035	0.00134	14.06	0.0365	NE	0.0275	0.284	0.447	NE	NE	NE
0.056	0.06	0.0017	0.0000075	0.00017	0.011	0.036	0.00013	14	0.036	0.25	0.028	0.28	0.45	NE	1	0.69
METHOD																
KA-3	10/21/19	8260B		0.0023	0.0027	0.0012	<0.001	<0.01	<0.001	<0.001	0.00057	<0.001	0.00048	<0.001	<0.003	<0.001
	08/22/19	8270C/8260B		0.015	0.019	0.011	<0.001	0.0039	<0.001	<0.001	0.0048	<0.001	0.0012	<0.001	0.0012	0.0004
	05/28/19	8270C		0.0057	0.0056	0.0022	<0.001	0.0055	<0.001	<0.001	0.0013	<0.001	<0.003	<0.001	<0.003	<0.001
	04/09/19	8270/8260B					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/30/18	8260B					<0.01	0.0059	<0.001	<0.001	0.0044	0.00014	0.0003	0.00032	0.0003	0.00016
	02/09/18	8260B					<0.001	<0.01	<0.001	<0.001	0.0002		<0.003	0.00021	<0.003	0.00016
	12/04/17	8260B					<0.001	0.003	<0.001	<0.001	0.00016		<0.003	0.00015	<0.003	<0.001
	09/05/17	8260B					<0.001	0.0052	<0.001	<0.001	0.00006		<0.003	<0.001	<0.001	<0.001
	06/01/17	8260B					<0.001	0.0057	<0.001	<0.001	<0.001		<0.003	<0.001	0.00046	<0.001
	02/21/17	8260B					<0.001	<0.01	0.00016	<0.001	0.00093		<0.003	0.00073	<0.003	0.00019
	11/14/16	8260B					<0.001	0.0054	0.00018	<0.001	0.00011		<0.003	0.00025	0.00036	0.00026
	09/01/16	8260B					<0.001	0.0097	<0.001	<0.001	0.00025		<0.003	0.00026	0.00018	0.0002
	06/07/16	8260B					0.00012	<0.01	0.00016	<0.001	0.00017		<0.003	<0.001	<0.001	0.00023
	03/03/16	8260B					<0.001		0.00011		0.00016		<0.003	<0.001	<0.001	
	10/28/15	8260B														
	08/11/15	8270C/8260B														
	06/02/15	8270C														
	03/10/15	8270C														
	11/11/14	8270C														
	09/11/14	8270C														
	06/05/14	8270C														
	03/10/14	8270C														
	11/12/13	8270C														
	09/03/13	8270C/8260B														
	06/12/13	8270C														
	03/18/13	8270C														
	12/05/12 <sup>1</sup>	8270C/8260B														
	08/21/12	8270C/8260B														
	06/12/12	8270C														
	03/20/12	8270C														
	12/14/11	8270C														
	09/27/11	8270C														
	06/15/11	8270C/8260B														
	03/02/11	8270C														
	11/02/10	8270C														
	09/15/10	8270C/8260B														
	06/10/10	8310														
	03/08/10	8270C/8260B														

STANDARDS

WQCC 20NMAC 6.2.3103 (DECEMBER 2019)
40 CFR 141.62 MCL
NMED Tap Water (Rev 2. JUN 2019)
EPA RSL for Tap Water (NOV 2019)



PARAMETERS																			
1,2,4-Trimethyl benzene (mg/L)		1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Bromodichloro methane (mg/L)	Acetone (mg/L)	cis-1,2-DCE (mg/L)	4-Chloro toluene (mg/L)	1,1-Dichloro ethane (mg/L)	1,1-Dichloro ethene (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	tert-Butyl benzene (mg/L)
NE		NE	0.005	0.00005	0.03	NE	NE	NE	NE	0.07	NE	0.025	0.007	NE	NE	NE	NE	NE	NE
NE		NE	0.005	0.00005	NE	NE	NE	NE	NE	0.07	NE	NE	0.007	NE	NE	NE	NE	NE	NE
NE		NE	0.0017	0.0000747	0.00165	0.0114	0.035	0.00134	14.06	0.0365	NE	0.0275	0.284	0.447	NE	NE	NE	NE	NE
0.056		0.06	0.0017	0.0000075	0.00017	0.011	0.036	0.00013	14	0.036	0.25	0.028	0.28	0.45	NE	1	0.66	2	0.69
Well ID		DATE SAMPLED		METHOD															



## 8.9 OAPIS-1

### BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.05</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.00046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OAPIS-1	10/21/19	8260B	<b>0.17</b>	0.0015	0.021	0.0074	<b>0.25</b>
	08/22/19	8260B	<b>0.21</b>	0.0021	0.032	0.012	<b>0.29</b>
	05/08/19	8260B	<b>0.11</b>	0.0095	0.014	0.0065	<b>0.25</b>
	03/25/19	8260B	<b>0.077</b>	<0.002	0.01	0.004	<b>0.2</b>
	11/19/18	8260B	<b>0.17</b>	0.0011	0.017	0.0071	<b>0.29</b>
	09/06/18	8260B	<b>0.11</b>	0.0008	0.0096	0.005	<b>0.25</b>
	04/30/18	8260B	<b>0.068</b>	0.00066	0.0063	0.0032	<b>0.26</b>
	02/09/18	8260B	<b>0.068</b>	0.00016	0.0049	0.0029	<b>0.24</b>
	09/05/17	8260B	<b>0.23</b>	0.0018	0.027	0.0087	<b>0.27</b>
	06/01/17	8260B	<b>0.2</b>	0.0019	0.026	0.0096	<b>0.25</b>
	02/21/17	8260B	<b>0.12</b>	<0.01	0.01	<0.015	<b>0.28</b>
	11/14/16	8260B	<b>0.15</b>	0.0016	0.018	<0.015	<b>0.26</b>
	09/01/16	8260B	<b>0.18</b>	0.0015	0.023	0.0092	<b>0.24</b>
	06/07/16	8260B	<b>0.15</b>	0.0014	0.018	0.0083	<b>0.24</b>
	03/01/16	8260B	<b>0.076</b>	0.0006	0.0098	0.0037	<b>0.26</b>
	10/29/15	8260B	<b>0.13</b>	<0.01	0.016	<0.015	<b>0.26</b>
	08/11/15	8260B	<b>0.14</b>	<0.005	0.015	<0.0075	<b>0.29</b>
	06/02/15	8260B	<b>0.09</b>	<0.001	0.009	0.0043	<b>0.28</b>
	03/10/15	8260B	<b>0.065</b>	<0.005	0.0054	<0.0075	<b>0.29</b>
	11/11/14	8260B	<b>0.15</b>	<0.005	0.01	<0.0075	<b>0.4</b>
	09/12/14	8260B	<b>0.12</b>	<0.005	0.013	<0.0075	<b>0.32</b>
	06/05/14	8260B	<b>0.096</b>	<0.002	0.01	0.0049	<b>0.36</b>
	03/10/14	8260B	<b>0.07</b>	<0.001	0.0068	0.0033	<b>0.45</b>
	11/11/13	8260B	<b>0.089</b>	<0.001	0.01	0.0029	<b>0.43</b>
	09/03/13	8260B	<b>0.081</b>	<0.005	0.012	<0.0075	<b>0.42</b>
	06/12/13	8260B	<b>0.071</b>	<0.002	0.01	0.0033	<b>0.51</b>
	03/18/13	8260B	<b>0.027</b>	<0.005	<0.005	0.0075	<b>0.42</b>

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



### 8.9.1 OAPIS-1

#### General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1	10	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)			0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD								
OAPIS-1	10/21/19	300.0/8015D	1.6	1400	<0.5	<0.5	4.4	1.4	0.85	<2.5
	08/22/19	300.0/8015D	1	1500	<0.5	<0.5	4.8	12	0.97	<5.0
	05/08/19	300.0/8015D	1.6	1600	<0.5	<0.5	8.5	11	0.76	<5.0
	03/28/19	300.0/8015D	1.3	1500	<1.0	<1.0	8.1	11	0.68	<5.0
	11/19/18	300.0/8015D	1.7	1500	<0.5	<0.5	5.1	9.9	0.65	<5.0
	09/06/18	300.0/8015D	1.9	1400	<2.0	<2.0	4.8	9.8	0.71	<5.0
	04/30/18	300.0/8015D	1.4	1500	<1.0	<1.0	12	8.9	0.46	<5.0
	02/09/18	300.0/8015D	1.6	1700	<1.0	<1.0	10	6.9	0.62	<5.0
	12/04/17	300.0/8015D	1.5	1800	<1.0	<1.0	9.2	10	1	<5.0
	09/05/17	300.0/8015D	1.2	1600	<1.0	<1.0	8.7	10	1.4	<5.0
	06/01/17	300.0/8015D	1.3	1500	<1.0	<1.0	9.4	9.3	1.3	<5.0
	02/21/17	300.0/8015D	1.9	1400	<1.0	<1.0	14	12	0.92	<5.0
	11/14/16	300.0/8015D	1.3	1600	<2.0	<2.0	13	8.6	1.4	<5.0
	09/01/16	300.0/8015D	1.2	1900	<0.5	<0.5	14	9.5	1.7	<5.0
	03/07/16	300.0/8015D	1.6	1800	<1.0	<1.0	19	5.2	1.2	<5.0
	03/01/16	300.0/8015D	2	1700	<2.0	<2.0	23	6.1	0.86	<5.0
	10/29/15	300.0/8015D	1.6	1800	<1.0	<1.0	18	7.1	0.8	<5.0
	08/11/15	300.0/8015D	1.4	2000	<1.0	<1.0	20	3.7	0.86	<5.0
	06/03/15	300.0/8015D	1.9	1800	<2.0	<2.0	26	4.4	NA	<5.0
	03/10/15	300.0/8015D	1.4	1800	<0.5	<0.5	30	6.5	0.56	<5.0
	11/11/14	300.0/8015D	1.9	1700	<2.0	<2.0	23	9.2	0.79	<5.0
	09/12/14	300.0/8015D	14.2	1700	<1.0	<1.0	22	6.8	0.75	<5.0
	06/05/14	300.0/8015D	1.3	1400	<2.0	<2.0	22	11	0.7	<5.0
	03/10/14	300.0/8015D	1.7	1700	<1.0	<1.0	37	6.4	0.71	<5.0
	11/11/13	300.0/8015D	2	1600	5.4	5.4	38	23	0.81	NA
	09/03/13	300.0/8015D	1.6	1800	<1.0	<1.0	38	10	0.73	7.5
	06/12/13	300.0/8015D	1.6	1800	<1.0	<1.0	41	7.1	0.94	<5.0
	03/18/13	300.0/8015D	1.8	1600	<2.0	<2.0	65	6	0.48	<5.0

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)







8.9.3 OAPIS-1

Dissolved Metals Analytical Result Summary

Annual Result Summary														
STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL TAP WATER (NOVEMBER 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
WELL ID	DATE SAMPLED	METHOD												
OAPIS-1	10/21/19	200.7/200.8	0.009	1.3	<0.002	<0.006	<0.006	3.2	0.00045	1.5	0.0016	0.0033	NA	0.034
	08/22/19	200.7/200.8	0.0076	1	<0.002	<0.03	0.0068	6	0.00041	1.6	0.0012	<0.025	0.0051	<0.05
	05/08/19	200.7/200.8	0.0068	1.1	<0.002	<0.006	<0.006	5.2	0.0014	1.8	0.0016	0.0029	0.016	0.012
	03/28/19	200.7/200.8	0.0067	1.1	<0.002	<0.006	<0.006	4.2	0.00044	1.7	0.0013	0.0024	0.011	0.045
	11/19/18	200.7/200.8	0.0083	0.99	<0.002	<0.006	<0.006	6.2	0.00059	1.7	0.001	<0.025	0.0058	0.032
	09/06/18	200.7/200.8	0.008	1.1	<0.002	<0.006	<0.006	0.88	0.0038	1.5	<0.005	0.0042	0.041	0.035
	04/30/18	200.7/200.8	0.0091	0.93	<0.002	<0.006	0.0038	0.98	0.0043	1.1	<0.005	0.002	0.047	0.019
	02/09/18	200.7/200.8	0.016	0.98	<0.002	<0.006	0.0036	1.3	0.0029	1.4	0.019	0.0019	0.038	0.017
	12/04/17	200.7/200.8	0.015	1.1	<0.002	<0.006	<0.006	3	0.00068	1.6	0.02	0.0023	0.021	0.012
	09/05/17	200.7/200.8	0.014	0.89	<0.002	0.0031	<0.006	6	<0.0025	1.6	0.028	<0.005	0.0096	0.035
	06/01/17	200.7/200.8	0.011	0.92	<0.002	<0.006	<0.006	6.4	<0.0025	1.7	0.016	<0.005	0.013	0.014
	02/21/17	200.7/200.8	0.013	0.95	<0.002	<0.006	<0.006	4.8	<0.0025	1.7	0.022	<0.005	NA	0.029
	11/14/16	200.7/200.8	0.017	0.87	<0.002	<0.006	<0.006	7.4	0.00081	1.8	0.033	<0.005	0.014	0.0071
	09/01/16	200.7/200.8	0.016	0.85	<0.002	<0.006	<0.006	7.5	0.00099	1.8	0.025	<0.005	0.015	0.0059
	06/07/16	200.7/200.8	0.014	0.8	<0.002	<0.006	<0.006	7.2	<0.005	2	0.024	<0.005	0.013	0.0047
	03/01/16	200.7/200.8	0.01	0.62	<0.002	<0.006	<0.006	4.6	0.00092	1.6	0.014	<0.005	0.015	0.024
	10/29/15	200.7/200.8	0.017	0.72	<0.002	<0.006	<0.006	5.2	<0.0025	1.8	0.034	<0.005	0.015	<0.01
	08/11/15	200.7/200.8	0.012	0.59	<0.002	0.0069	<0.006	4.7	<0.0025	1.7	0.021	<0.005	0.019	0.18
	06/02/15	200.7/200.8	0.012	0.56	<0.002	<0.006	<0.006	3.2	<0.01	1.7	0.017	<0.005	0.021	0.015
	03/10/15	200.7/200.8	<0.02	0.63	<0.002	<0.006	<0.006	4.9	<0.001	1.8	<0.05	<0.005	0.02	0.019
	11/11/14	200.7/200.8	<0.02	0.68	<0.002	<0.006	<0.006	7.6	<0.001	1.8	0.022	<0.005	0.022	0.029
	09/12/14	200.7/200.8	0.018	0.78	<0.002	<0.006	<0.006	7.2	<0.001	1.8	0.034	<0.005	0.029	0.021
	06/05/14	200.7/200.8	0.011	0.8	<0.002	0.0082	0.025	10	0.02	2.2	0.014	<0.005	0.039	0.1
	03/10/14	200.7/200.8	0.0083	0.61	<0.002	<0.006	<0.006	5.4	0.0079	2	0.0084	<0.005	0.039	0.046
	11/11/13	200.7/200.8	0.013	0.59	<0.002	<0.006	<0.006	6.4	0.0014	2.1	0.026	<0.025	0.042	0.056
	09/03/13	200.7/200.8	0.012	0.55	<0.002	<0.006	<0.006	5.2	<0.005	2	0.023	<0.005	0.047	0.05
	06/12/13	200.7/200.8	0.013	0.65	<0.002	<0.006	<0.006	6.2	0.0018	2.7	0.03	<0.025	0.053	0.038
	03/18/13	200.7/200.8	0.0074	0.44	<0.002	<0.006	<0.006	1.8	0.0063	1.9	0.0094	<0.005	0.062	0.046

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.9.4 OAPIS-1

Volatile Organic Compounds Analytical Result Summary

PARAMETERS																					
STANDARDS																					
WQCC 20 NMAC 6.2.3103 (DEC 2018)																					
40 CFR 141.61 MCL																					
NMED TAP WATER (MAR 2019)																					
EPA RSL for Tap Water (NOV 2018)																					
WELL ID	DATE SAMPLED	METHOD	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibromo ethane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)		
OAPIS-1	10/21/19	8260B/8011/504.1	0.0094	<0.001	0.00053	<0.0000093	0.0019	0.049	<0.004	<0.01	<0.01	0.0011	0.002	0.00067	<0.01	<0.003	<0.003	<0.003	0.0025	0.00042	
	08/22/19	8260B	0.019	<0.001	<0.001	<0.001	0.0043	0.083	<0.004	0.029	0.0065	0.0015	0.0035	0.0012	<0.01	<0.003	<0.003	0.0015	0.0044	0.00088	
	05/08/19	8260B	0.0054	<0.002	<0.002	<0.0000093	0.0045	0.054	<0.008	<0.02	<0.02	0.0011	0.0013	0.00053	<0.02	<0.006	<0.006	0.0015	<0.002	<0.002	
	03/28/19	8260B	0.0061	<0.002	0.00066	<0.002	0.0082	0.02	0.0036	0.014	<0.02	0.0011	0.00099	<0.002	<0.02	<0.006	<0.006	0.0013	<0.002	<0.002	
	11/19/18	8260B	0.0089	<0.002	<0.002	<0.002	0.0024	0.053	<0.008	0.025	<0.02	0.0013	0.0021	0.00067	<0.02	<0.006	<0.006	0.0027	0.0005	0.0005	
	09/06/18	8260B	0.0045	<0.001	0.0004	<0.0000094	0.0013	0.015	<0.004	0.043	<0.01	0.001	0.001	0.00035	0.0015	<0.003	<0.003	0.001	0.00022	0.00022	
	04/30/18	8260B	0.0016	<0.001	<0.001	<0.001	0.00074	0.0047	0.00036	0.056	0.0044	0.0011	0.00073	0.00033	<0.01	<0.003	<0.003	0.00076	0.00018	0.00018	
	02/09/18	8260B	0.00068	<0.002	<0.002	<0.002	<0.004	0.0016	<0.008	0.041	<0.02	0.0011	0.00068	0.00034	<0.02	0.00047		0.00054	0.00023	0.00023	
	12/04/17	8260B	0.0049	<0.005	<0.005	<0.005	<0.01	0.02	<0.02	0.038	<0.05	<0.005	0.0014	<0.005	<0.05		<0.015	0.0013	<0.005	<0.005	
	09/05/17	8260B	0.016	<0.005	<0.005	<0.005	0.0034	0.066	0.0012	0.013	<0.05	<0.005	0.0032	0.00091	<0.05		0.00098	0.0042	0.0006	0.0006	
	06/01/17	8260B	0.02	<0.005	<0.005	<0.005	0.007	0.067	<0.02	<0.05	<0.05	0.0022	0.003	0.00059	<0.05		<0.015	0.0041	0.0026	0.0026	
	02/21/17	8260B	0.0037	<0.01	<0.01	<0.01	0.002	0.016	<0.04	<0.1	<0.1	<0.01	0.0016	<0.01	<0.01	<0.1		<0.03	0.0015	<0.01	<0.01
	11/14/16	8260B	0.012	<0.01	0.0032	<0.01	0.0033	0.023	<0.01	<0.01	<0.1	<0.05	<0.01	0.0027	<0.01	<0.1		0.0031	0.0044	0.0025	0.0025
	09/01/16	8260B	0.012	<0.005	<0.005	<0.005	0.003	0.071	<0.02	0.031	<0.05	0.0014	0.0031	0.00099	<0.05		0.001	0.004	<0.005	<0.005	
	06/07/16	8260B	0.012	0.00015	<0.001	<0.001	0.0075	0.074	0.00044	0.025	0.0037	0.0013	0.0026	0.00084	<0.01		0.00078	0.0033	0.0063	0.00063	
	03/01/16	8260B	0.00028	<0.001	0.0062		0.0014	0.013	<0.004	<0.004	0.034	0.0055	0.0012	0.0014	0.00038	0.0019		0.00027	0.0015	0.00033	0.00033
	10/29/15	8260B	<0.01	<0.01			<0.02	<0.04	<0.04	<0.04	<0.1		<0.01	<0.01				<0.03	<0.01		
	08/11/15	8260B	0.0062	<0.005	<0.005		<0.01	0.021	<0.02	<0.02	<0.05		<0.005	<0.005				<0.015	<0.005		
	06/02/15	8260B	0.0051	<0.001	0.0024		0.0024	0.03	<0.04	<0.04	0.028		<0.001	0.0014				<0.003	0.0018		
	03/10/15	8260B	<0.005	<0.005	<0.005		<0.01	<0.02	<0.02	<0.02	<0.05		<0.005	<0.005				<0.015	<0.005		
	11/11/14	8260B	<0.005	<0.005	<0.005		<0.01	0.032	<0.02	<0.02	<0.05		<0.005	<0.005				<0.015	<0.005		
	09/12/14	8260B	<0.005	<0.005	<0.005		<0.01	0.03	<0.02	<0.02	<0.05		<0.005	<0.005				<0.015	<0.005		
	06/05/14	8260B	0.0066	<0.002	<0.004		<0.004	0.03	<0.008	<0.008	<0.02		<0.002	0.0022				<0.006	0.0023		
	03/10/14	8260B	0.0025	<0.001	<0.002		<0.002	0.013	<0.004	<0.004	0.016		<0.001	0.0015				<0.003	0.0016		
	11/11/13	8260B	0.0016	<0.001	<0.002		<0.002	0.014	<0.004	<0.004	<0.01		0.0011	0.0025				<0.003	0.0025		
	09/03/13	8260B	<0.005	<0.005	<0.01		<0.01	<0.02	<0.02	<0.02	<0.05		<0.005	<0.005				<0.015	<0.005		
	06/12/13	8260B	0.002	<0.002	<0.004		<0.004	0.014	<0.008	<0.008	<0.02		<0.002	0.0022				<0.006	0.0023		

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.9.5 OAPIS-1

Semi-Volatile Organic Compounds Analytical Result Summary

PARAMETERS															
STANDARDS															
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)															
40 CFR 141.61 MCL															
NMED TAP WATER (JUNE 2019)															
EPA RSL TAP WATER (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD	Acenaphthene (mg/L)	Anthracene (mg/L)	Benzoic Acid (mg/L)	Bis(2- ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4- Dimethyl phenol (mg/L)	1,4- Dioxane (mg/L)	Fluorene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)
OAPIS-1	10/21/19	8270D/8310	0.00249	0.00011	<0.005	0.09	<0.05	<0.05	<0.05	0.0035	0.00239	0.00329	0.00578	0.0003	<0.05
	08/22/19	8270C			<0.02	<0.01	<0.01	<0.01	0.023			0.0056	0.073		<0.01
	05/08/19	8270C			<0.1	0.031	<0.05	<0.05	0.027				0.03		<0.05
	03/28/19	8270C			<0.02	<0.01	<0.01	<0.01	0.014				0.011		<0.01
	11/19/18	8270C			<0.1	0.09	<0.05	<0.05	<0.05						<0.05
	09/06/18	8270C			0.034	<0.05	<0.05	<0.05	<0.05						<0.05
	04/30/18	8270C			0.092	<0.05	<0.05	<0.05	<0.05						<0.05
	02/09/18	8270C			0.0083	<0.01	<0.01	<0.01	0.012						0.0041
	12/04/17	8270C			0.024	0.044	<0.050	<0.05	0.034						<0.05
	09/05/17	8270C			<0.2	<0.1	<0.100	<0.1	0.032						<0.1
	06/01/17	8270C			0.0069	0.01	<0.010	<0.01	0.0073						<0.01
	02/21/17	8270C			<0.02	0.0078	<0.010	<0.01	0.013						<0.01
	11/14/16	8270C			0.0085	<0.01	0.0071	0.006	0.011						<0.1
	09/01/16	8270C				0.0033	0.0033		0.006						<0.01
	06/07/16	8270C				0.019	0.025		0.028						<0.05
	03/01/16	8270C							0.007						<0.01
	10/29/15	8270C							<0.1						<0.1
	08/11/15	8270C							0.024						<0.01
	06/02/15	8270C							0.029						<0.01
	03/10/15	8270C							<0.01						<0.01
	11/11/14	8270C							<0.05						<0.05
	09/12/14	8270C							0.028						<0.01
	06/05/14	8270C							0.032						<0.01
	03/10/14	8270C							<0.01						<0.01
	11/11/13	8270C							<0.01						<0.01
	09/03/13	8270C							0.022						<0.01
	06/12/13	8270C							0.023						<0.01
	03/18/13	8270C													0.01

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 – Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMIED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



**8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
BTEx, MTBE and DRO/GRO/MRO Analytical Result Summary**

PARAMETERS											
		Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)		
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	0.62	0.1	NE	NE	NE	NE	NE
40 CFR 141.61 MCL		0.005	1	0.7	10	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)		0.00455	1.09	0.0149	0.193	0.143	NE	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)		0.0046	1.1	0.0015	0.19	0.14	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NA	NE	NE	NE	NE	0.0167	0.0101	0.0858		
SAMPLE ID	DATE SAMPLED	METHOD									
East LDU <sup>3</sup>	11/19/19	1.3	0.36	0.082	0.21	<0.005	1.1	5.2	<2.5		
	08/22/19	0.6	0.15	0.057	0.15	0.0024	2.8	2.2	<5.0		
	05/28/19	0.89	0.072	0.091	0.056	NA	2.4	2.4	<5.0		
	04/09/19	1.5	0.028	0.15	0.027	0.0012	3	3.5	<5.0		
	04/30/18	0.71	0.037	0.26	0.6	<0.01	4.2	5.1	<5.0		
	02/12/18	1.9	0.047	0.29	0.08	<0.0024	4.5	7.9	<5.0		
	12/04/17	1.7	0.06	0.18	0.18	<0.005	4.4	7.6	<5.0		
	09/05/17	0.53	0.23	0.19	0.9	<0.01	6.9	5.5	<5.0		
	06/02/17	0.17	0.0066	0.063	0.075	0.0025	7.1	2	<5.0		
	02/21/17	0.23	0.14	0.14	0.3	0.013	27	4.4	<5.0		
	11/17/16	0.11	0.0082	0.1	0.0098	0.0063	16	1.6	<5.0		
	06/07/16	0.36	0.032	0.025	0.097	0.013	16	4.9	<5.0		
	03/01/16	0.41	0.03	0.27	0.14	0.011	21	5.6	<5.0		
	10/29/15	0.56	0.044	0.25	1.1	0.022	24	5.5	<5.0		
	08/11/15	1.2	1.1	0.34	1.7	<0.02	19	15	<5.0		
	06/03/15	1.2	1	0.43	2	<0.02	17	0.54	<5.0		
	03/10/15	1.3	0.46	0.47	1.9	<0.05	26	9.4	<5.0		
	11/11/14	1.7	4.8	0.72	8.2	<0.5	17	38	NL		
	06/03/14	8.9	21	2.3	19	<0.5	29	130	<5.0		
	03/10/14	9.8	27	3.8	25	<0.5	310	200	<50		
	11/12/13	0.19	0.17	0.13	5.6	<0.5	410	32	NA		
	06/12/13	9.4	2.2	0.51	6.1	<0.5	18	38	<5.0		
	03/18/13	12	4.6	0.61	7	<0.5	28	50	<5.0		
	11/28/12	1.1	0.89	0.51	6.7	<0.25	19	27	<5.0		
	08/21/12	1.2	0.33	0.46	5.7	<0.25	10	17	<5.0		
	06/12/12	1.3	1.1	0.46	6.3	<0.25	27	24	<5.0		
	03/20/12	1.4	3.1	0.56	8	<0.5	30	31	<5.0		



**8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
BTX, MTBE and DRO/GRO/MRO Analytical Result Summary**

STANDARDS		PARAMETERS										
		Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)			
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	0.62	0.1	NE	NE	NE	NE	NE	
40 CFR 141.61 MCL		0.005	1	0.7	10	NE	NE	NE	NE	NE	NE	
NMED TAP WATER (JUNE 2019)		0.00455	1.09	0.0149	0.193	0.143	NE	NE	NE	NE	NE	
EPA RSL TAP WATER (NOVEMBER 2019)		0.0046	1.1	0.0015	0.19	0.14	NE	NE	NE	NE	NE	
NMED SSG (JUNE 2019)		NA	NE	NE	NE	NE	0.0167	0.0101	0.0858			
East LDU <sup>3</sup> (continued)	12/14/11	1.8	4.2	0.56	6.7	<0.25	33	33	<5.0			
	09/26/11	2.8	7.2	0.68	7	<0.13	34	43	<5.0			
	06/15/11	1.8	0.28	0.32	3.8	<0.02	27	13	<5.0			
	03/03/11	2.6	7.2	0.45	3.9	<0.5	35	83	<5.0			
	11/11/10	10	28	1.3	9	<0.05	63	100				
	09/20/10	10	20	1.1	8.1	<0.13	120	100				
	03/18/10	9.1	17	1.4	9.9	NL	16000	120				
West LDU <sup>2</sup>	11/19/19	0.0023	<0.001	<0.001	<0.0015	0.0027	2.3	0.13	<2.5			
	08/22/19	0.00098	<0.001	0.00023	0.011	0.0369	6.7	0.32	<5.0			
	05/28/19	0.0085	<0.002	0.004	0.0023	NA	7.8	0.32	<5.0			
	04/09/19	0.16	<0.002	0.02	0.0024	0.0029	7.4	0.57	<5.0			
	04/30/18	2.7	0.016	0.072	0.035	<0.01	9.4	5.8	<5.0			
	02/12/18	1.4	0.13	0.042	0.074	0.0056	7.6	5	<5.0			
	12/04/17	0.063	0.0018	0.033	0.0026	0.0018	7.7	1.2	<5.0			
	09/05/17	0.088	0.0012	0.015	0.0051	0.0033	9.8	0.76	<5.0			
	06/02/17	0.093	0.0041	0.015	0.016	0.0025	8.5	1.1	<5.0			
	02/21/17	0.29	0.024	0.032	0.06	0.0098	14	2.6	<5.0			
	11/17/16	0.14	0.015	0.038	0.024	<0.01	8.6	2.2	<5.0			
	06/07/16	0.41	0.049	0.05	0.14	0.0032	7.3	3.6	<5.0			
	03/01/16	0.26	0.053	0.027	0.047	<0.02	7.2	1.9	<5.0			
	10/29/15	0.5	0.19	0.03	0.29	<0.01	12	3	<5.0			
	08/11/15	2.7	0.74	0.083	0.44	<0.02	9.9	11	<5.0			
	Insufficient water volume - Did not sample											
		06/03/15	0.45	0.086	0.085	0.2	<0.012	12	2.7	<5.0		
03/10/15		0.87	0.3	0.11	0.94	<0.12	6.6	6.7	<5.0			
09/11/14		0.52	0.035	0.18	2.8	<0.05	8	12	<5.0			
06/03/14												



8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
BTEx, MTBE and DRO/GRO/MRO Analytical Result Summary

PARAMETERS											
		Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)		
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	0.62	0.1	NE	NE	NE	NE	
40 CFR 141.61 MCL		0.005	1	0.7	10	NE	NE	NE	NE	NE	
NMED TAP WATER (JUNE 2019)		0.00455	1.09	0.0149	0.193	0.143	NE	NE	NE	NE	
EPA RSL TAP WATER (NOVEMBER 2019)		0.0046	1.1	0.0015	0.19	0.14	NE	NE	NE	NE	
NMED SSG (JUNE 2019)		NA	NE	NE	NE	NE	0.0167	0.0101	0.0858		
		0.7	0.14	0.17	3.3	<0.25	14	13	<5.0		
West LDU <sup>2</sup> (continued)	8021B/8015B	2.8	3.7	0.31	6	<0.25	17	30	NA		
	8021B/8015B	1.5	3.1	0.28	7.8	<0.25	110	47	<50		
	8021B/8015B	6	3	0.49	5.2	<0.25	4.7	31	<5.0		
	8021B/8015B	3.9	0.42	0.38	4	<0.25	2.6	20	<5.0		
	8021B/8015B	2	1.9	0.57	5.1	<0.25	5.7	25	<5.0		
	8021B/8015B	1.8	3.2	0.66	3.1	<0.25	4	18	<5.0		
	8021B/8015B	1.4	3.5	0.41	5.7	<0.25	9	27	<5.0		
	8021B/8015B	1.6	6	0.69	7.6	<0.012	6.9	42	<5.0		
	8021B/8015B	2.3	8.3	0.83	7.2	<0.25	22	45	<5.0		
	8021B/8015B	3.6	9.3	0.59	5.5	<0.025	14	45	<5.0		
	8260B/8015B	0.094	0.33	0.029	0.26	<0.01	13	2.2	<5.0		
	8021B/8015B	6.1	17	0.92	7.9	<0.5	15	40	<5.0		
	8021B/8015B	7	18	0.9	6.1	<0.001	16	67			
	8021B/8015B	3.1	5.8	0.36	2.9	<0.0025	9	26			
	8021B/8015B	2.7	4.2	0.19	1.4	NL	16	24			
	Oil Sump LDU <sup>1</sup>	8021B/8015B	4.5	9.5	0.72	6.3	<0.5	17	42	<5.0	
8021B/8015B		5.1	8.8	0.71	5.5	<0.5	20	40	<5.0		
8021B/8015B		2.7	6.6	0.57	5.4	<0.5	13	37	<5.0		
8021B/8015B		1.8	6	0.59	5.5	<0.5	8.8	28	<5.0		
8021B/8015B		2.1	6.2	0.59	5.1	<0.5	18	36	<5.0		
8021B/8015B		2	8.1	0.89	6.9	<0.5	42	45	<5.0		
8021B/8015B		3.4	7.5	0.76	7.4	<0.5	14	52	<5.0		
8021B/8015B		3.5	10	0.76	6.4	<0.5	18	49	<5.0		
8260B/8015B		3	7.1	0.48	3.9	<0.2	20	38	<5.0		
8021B/8015B		5.6	13	1.2	7.9	<0.5	680	120	<15		



**8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
BTEx, MTBE and DRO/GRO/MRO Analytical Result Summary**

		PARAMETERS							
		Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
<b>STANDARDS</b>		<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>	NE	NE	NE
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)		0.005	1	0.7	10	NE	NE	NE	NE
40 CFR 141.61 MCL		0.00455	1.09	0.0149	0.193	0.143	NE	NE	NE
NIMED TAP WATER (JUNE 2019)		0.0046	1.1	0.0015	0.19	0.14	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)		NA	NE	NE	NE	NE	<b>0.0167</b>	<b>0.0101</b>	<b>0.0858</b>
NIMED SSG (JUNE 2019)									
<b>SAMPLE ID</b>	<b>DATE SAMPLED</b>	<b>METHOD</b>							
	11/11/10	8021B/8015B							
Oil Sump LDU <sup>1</sup>	09/20/10	8021B/8015B							
(continued)	03/18/10	8021B/8015B							
		<b>8.8</b>	<b>19</b>	<b>1.6</b>	<b>10</b>	<0.2	<b>390</b>	<b>110</b>	
		<b>9.4</b>	<b>29</b>	<b>6.1</b>	<b>40</b>	<0.5	<b>1400</b>	<b>650</b>	
		<b>5.6</b>	<b>33</b>	<b>6.4</b>	<b>38</b>	<0.95	<b>35</b>	<b>69</b>	

**DEFINITIONS**

NA = Not analyzed ; NE = Not Established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NIMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NIMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

**NOTES**

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014, 2015, 2016 and 2017 - dry.

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect sample.

3 ) East LDU - No samples collected third quarter 2014.



8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
East LDU <sup>3</sup>	11/19/19	200.7/200.8	0.0110	0.38	<0.002	0.05	<0.006	0.2	<0.0005	0.11	<0.001	<0.0002	<0.0005	0.071
	08/22/19	200.7/200.8	0.00046	0.38	<0.002	0.05	<0.006	0.2	0.00015	0.11	<0.001	0.00013	0.00012	0.0073
	05/28/19	200.7/200.8	<0.001	0.12	<0.002	0.094	<0.006	1.3	<0.0005	0.79	<0.001	<0.0002	<0.0005	<0.01
	04/09/19	200.7/200.8	0.00032	0.11	<0.002	0.093	<0.006	0.12	0.00022	0.25	<0.001	NA	0.00021	0.013
	04/30/18	200.7/200.8	<0.001	0.38	<0.002	0.05	<0.006	0.2	<0.0005	0.11	<0.001	<0.0002	<0.0005	0.02
	02/12/18	200.7/200.8	<0.001	0.22	<0.0002	0.087	0.0043	0.97	0.00035	0.54	<0.001	NA	<0.0005	0.027
	12/04/17	200.7/200.8	0.00099	0.43	<0.002	0.069	<0.006	1.3	0.00048	0.25	<0.001	<0.0002	<0.0005	0.041
	09/05/17	200.7/200.8	0.00036	0.32	<0.002	0.054	0.0018	0.23	0.00021	0.058	<0.005	<0.0002	<0.0005	0.015
	06/02/17	200.7/200.8	0.00036	0.23	<0.002	0.05	0.0024	0.32	0.00027	0.13	<0.001	<0.0002	<0.0005	0.013
	02/21/17	200.7/200.8	0.0049	0.13	<0.002	1.2	0.039	84	0.0018	14	0.0025	0.00022	NA	0.063
	11/17/16	200.7/200.8	0.0033	0.097	<0.002	0.53	0.0097	55	0.0027	16	0.0023	0.00028	<0.0025	0.74
	06/07/16	200.7/200.8	0.0053	0.16	<0.002	0.57	0.015	3.8	0.0011	3.6	0.0017	0.00016	0.00062	0.088
	03/01/16	200.7/200.8	0.0046	0.13	<0.002	0.47	<0.006	1.5	0.00026	8.0	0.0013	0.000065	0.00048	0.056
	10/29/15	200.7/200.8	0.0052	0.21	<0.002	0.74	<0.006	0.051	<0.005	3.3	0.0029	<0.0002	<0.005	<0.01
	08/11/15	200.7/200.8	<0.05	0.31	<0.002	0.95	<0.006	0.29	<0.025	2.7	<0.05	<0.0002	<0.025	0.016
	06/03/15	200.7/200.8	0.0089	0.34	<0.002	0.94	<0.006	0.84	<0.025	3.0	<0.005	<0.0002	<0.0025	<0.01
	03/10/15	200.7/200.8	0.0047	0.16	<0.002	0.85	<0.006	3.0	<0.001	6.5	0.0024	<0.0002	0.0013	0.054
	11/11/14	200.7/200.8	0.0015	0.12	<0.002	0.22	<0.006	19	<0.001	5.4	<0.001	<0.0002	<0.001	0.18
	06/03/14	200.7/200.8	0.019	0.33	<0.002	0.54	<0.006	1.1	<0.005	1.5	<0.005	<0.0002	<0.005	0.027
	03/10/14	200.7/200.8	0.0093	0.2	<0.002	0.71	<0.006	4.4	<0.005	3.1	<0.005	0.00022	<0.005	0.12
	11/12/13	200.7/200.8	0.012	0.35	<0.01	0.44	<0.03	0.32	<0.005	0.26	0.0063	<0.0002	<0.005	<0.05
	06/12/13	200.7/200.8	0.007	0.56	<0.002	0.72	<0.006	0.091	<0.005	0.56	0.0081	<0.0002	<0.005	<0.01
	03/18/13	200.7/200.8	0.0059	0.48	<0.002	0.76	<0.006	0.09	<0.005	0.62	0.0027	<0.0002	<0.0025	<0.01
	11/28/12	200.7/200.8	0.0095	0.53	<0.002	0.71	<0.006	0.23	<0.005	1.1	0.0036	<0.0002	<0.0025	<0.01
	08/21/12	200.7/200.8	0.0094	0.67	<0.002	0.51	<0.006	0.099	<0.005	1.2	<0.05	<0.0002	<0.0025	<0.01
	06/12/12	200.7/200.8	0.0099	0.6	<0.002	0.31	<0.006	0.17	<0.005	1.2	0.0065	<0.001	<0.005	<0.01
	03/20/12	200.7/200.8	0.0032	0.44	<0.002	0.11	<0.006	2.3	<0.005	0.58	0.0026	<0.0002	<0.0025	0.064
	12/14/11	200.7/200.8	0.0082	0.34	<0.002	0.14	<0.006	0.54	<0.005	0.42	<0.0025	<0.0002	<0.0025	0.018
	09/26/11	200.7/200.8	0.0039	0.59	<0.002	0.12	<0.006	0.58	<0.005	0.56	<0.0025	<0.0002	<0.0025	0.036
	06/15/11	200.7/200.8	0.027	0.94	<0.002	0.14	0.13	31	0.047	1.3	0.037	<0.0002	<0.0025	3.3
	03/03/11	200.7/200.8	0.0058	0.48	<0.002	0.035	<0.006	0.57	<0.005	0.39	<0.05	<0.0002	<0.0025	0.014
	11/11/10	6010B	<0.1	0.94	<0.01	0.12	<0.03	1.1	<0.025	1.6	<0.25	<0.0002	<0.001	<0.1
	09/20/10	6010B	<0.02	0.54	<0.002	0.039	<0.006	7.6	<0.005	0.8	<0.05	<0.0008	<0.005	0.21
	03/18/10	6010B	<0.1	1.3	<0.01	0.25	0.073	24	<0.025	2.0	<0.25	<0.0008	<0.001	1.3



8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
West LDU <sup>2</sup>	11/19/19	200.7/200.8	<0.02	0.062	<0.002	0.15	<0.006	51	<0.0025	19	<0.02	<0.0002	0.00082	0.029
	08/22/19	200.7/200.8	0.00046	0.073	<0.002	0.24	<0.006	38	0.00047	28	<0.001	0.00018	0.00062	0.029
	05/28/19	200.7/200.8	<0.005	0.071	<0.01	0.7	<0.03	770	0.0004	76	<0.005	<0.0002	<0.0025	0.16
	04/09/19	200.7/200.8	<0.005	0.092	<0.01	0.74	<0.03	1300	0.00016	77	<0.005	NA	<0.0025	0.072
	04/30/18	200.7/200.8	0.0051	0.094	<0.002	0.66	<0.006	0.92	<0.0025	1.4	<0.005	0.000097	0.00069	0.065
	02/12/18	200.7/200.8	0.0034	0.1	<0.002	0.43	0.0066	1.5	0.00085	2.1	0.003	NA	0.0013	0.095
	12/04/17	200.7/200.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/05/17	200.7/200.8	0.0038	0.11	<0.002	1.3	<0.006	26	0.00048	9.3	<0.005	<0.0002	<0.0025	0.056
	06/02/17	200.7/200.8	0.0028	0.11	<0.002	0.35	<0.006	44	0.00055	16	<0.005	0.000071	0.0021	0.33
	02/21/17	200.7/200.8	0.0072	0.22	<0.002	2.1	<0.006	1.4	<0.0025	2.6	0.005	0.000064	NA	0.014
	11/17/16	200.7/200.8	0.004	0.26	<0.002	0.77	<0.006	3.3	0.00083	0.6	0.0029	0.00026	<0.0025	0.079
	06/07/16	200.7/200.8	0.0051	0.41	<0.002	1.2	<0.006	0.49	0.00043	0.5	0.003	0.00010	0.00034	0.016
	03/01/16	200.7/200.8	0.0051	0.31	<0.002	1.5	<0.006	0.6	0.00022	1.1	0.0034	0.00007	0.00066	0.018
	10/29/15	200.7/200.8	0.005	0.57	<0.002	1.2	<0.006	0.64	0.00055	0.7	<0.005	<0.0002	0.00058	0.027
	08/11/15	200.7/200.8	<0.02	0.6	<0.002	1.4	<0.006	1.9	<0.1	1.2	<0.02	<0.0002	<0.01	0.081
	03/10/15	200.7/200.8	0.0046	0.43	<0.002	0.76	<0.006	7.1	0.0016	3.3	0.0046	<0.0002	0.0012	0.21
	09/11/14	200.7/200.8	0.0031	0.52	<0.002	0.28	<0.006	5.1	0.0013	0.7	0.0034	<0.0002	<0.001	0.57
	06/03/14	200.7/200.8	<0.005	0.15	<0.002	0.058	<0.006	16	<0.005	2.0	<0.005	<0.0002	<0.005	0.5
	03/10/14	200.7/200.8	<0.005	0.069	<0.002	0.15	<0.006	9.0	<0.001	3.8	<0.005	<0.0002	<0.001	0.68
	11/12/13	200.7/200.8	0.0099	0.18	<0.002	0.16	<0.006	0.34	<0.005	1.4	0.014	<0.0002	<0.005	0.032
	09/05/13	200.7/200.8	0.0088	0.23	<0.002	0.32	<0.006	37	<0.005	2.0	<0.02	<0.0002	<0.005	1.1
	06/12/13	200.7/200.8	0.0053	0.22	<0.002	0.036	<0.006	0.31	<0.005	0.29	0.0097	<0.0002	<0.005	<0.01
	03/18/13	200.7/200.8	0.0036	0.15	<0.002	0.046	<0.006	0.71	<0.005	0.32	<0.0025	<0.0002	<0.0025	0.026
	11/28/12	200.7/200.8	0.0031	0.17	<0.002	0.079	<0.006	0.72	<0.005	0.57	<0.0025	<0.0002	<0.0025	0.016
	08/21/12	200.7/200.8	<0.0025	0.4	<0.002	0.036	<0.006	0.26	<0.005	0.22	<0.05	<0.0002	<0.0025	<0.01
	06/12/12	200.7/200.8	0.0038	0.36	<0.002	0.02	<0.006	0.16	<0.005	0.2	0.0049	<0.001	<0.0025	<0.01
	03/20/12	200.7/200.8	0.0028	0.21	<0.002	0.011	<0.006	1.3	<0.005	0.22	0.0035	<0.0002	<0.0025	0.014
	12/14/11	200.7/200.8	0.011	1.4	<0.002	0.082	0.045	9.1	0.016	0.34	<0.005	0.0036	0.0036	0.87
	09/26/11	200.7/200.8	0.0041	0.23	<0.002	0.072	<0.006	1.5	<0.005	0.89	0.0048	0.00027	<0.0025	0.064
	06/15/11	200.7/200.8	0.012	0.65	<0.002	0.093	<0.006	1.3	<0.005	1.1	0.025	<0.0002	<0.0025	0.061
	03/03/11	200.7/200.8	0.0083	0.49	<0.002	0.08	<0.006	4.1	<0.005	1.3	<0.05	<0.0002	<0.0025	0.067
	11/11/10	6010B	<0.02	0.5	<0.002	0.15	<0.006	0.66	<0.005	0.68	<0.05	<0.0002	<0.001	<0.02
	09/20/10	6010B	<0.02	0.27	<0.002	0.067	<0.006	0.31	NL	0.84	<0.05	<0.0002	<0.05	<0.02
	03/18/10	6010B	<0.02	0.2	<0.002	2.4	<0.006	5.3	<0.005	3.1	<0.05	<0.0008	<0.001	<0.05



8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
Oil Sump LDU 1	06/12/13	200.7/200.8	0.018	0.43	<0.002	0.12	<0.006	0.42	<0.005	1.1	0.015	<0.0002	<0.005	0.022
	03/18/13	200.7/200.8	0.018	0.33	<0.002	0.11	<0.006	0.61	<0.005	1.1	0.0049	<0.0002	<0.0025	0.03
	11/28/12	200.7/200.8	0.011	0.34	<0.002	0.085	<0.006	0.8	<0.005	1.1	0.0046	<0.0002	<0.0025	0.041
	08/21/12	200.7/200.8	0.011	0.45	<0.002	0.069	<0.006	0.86	<0.005	1.1	<0.05	<0.0002	<0.0025	0.055
	06/12/12	200.7/200.8	0.017	0.56	<0.002	0.052	0.018	5.8	0.0086	0.84	0.0097	0.0031	<0.005	0.43
	03/20/12	200.7/200.8	0.02	0.52	<0.002	0.048	0.0093	4.5	0.0065	0.82	0.012	0.0017	<0.0025	0.22
	12/14/11	200.7/200.8	0.012	0.24	0.002	0.034	<0.006	0.59	<0.005	0.37	0.004	<0.0002	<0.0025	0.018
	09/26/11	200.7/200.8	0.031	1.8	0.0022	0.16	0.62	120	0.2	0.93	0.0072	0.0077	0.0026	11
	06/15/11	200.7/200.8	0.0065	0.5	<0.01	0.039	<0.03	0.38	<0.025	0.35	0.004	<0.0002	<0.0025	<0.05
	03/03/11	200.7/200.8	0.0098	0.62	<0.002	0.072	<0.006	9.4	0.0056	0.81	<0.05	0.0024	<0.0025	0.47
	11/10/10	6010B	<0.1	7.2	<0.01	0.18	0.25	150	0.11	2.3	<0.25	0.017	<0.004	7.9
	09/20/10	6010B	<0.1	15	<0.01	0.23	0.59	130	0.24	1.6	<0.25	0.011	0.016	13
	03/18/10	6010B	<2.0	<2.0	<0.2	1.1	4.5	NL	1.7	3.3	<5.0	<0.004	0.0461	88

DEFINITIONS

NA = Not analyzed ; NE = Not Established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NIMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014, 2015, 2016 and 2017 - dry.

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.

3 ) East LDU - No samples collected third quarter 2014.



8.10.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
Dissolved Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
East LDU <sup>3</sup>	11/19/19	200.7/200.8	0.00063	0.054	<0.002	0.073	<0.006	0.28	<0.0005	0.33	<0.001	0.0012	<0.0005	0.025
	08/22/19	200.7/200.8	0.00027	0.061	<0.002	0.094	<0.006	4.8	<0.0005	0.95	<0.001	<0.005	0.00011	0.0067
	05/28/19	200.7/200.8	<0.001	0.12	<0.002	0.067	<0.006	1.3	<0.0005	0.83	<0.001	0.00098	<0.0005	0.013
	04/09/19	200.7/200.8	<0.001	0.11	<0.002	0.028	<0.006	0.039	<0.0005	0.28	<0.001	0.0019	<0.0005	0.013
	04/30/18	200.7/200.8	<0.001	0.38	<0.002	0.02	<0.006	0.08	<0.0005	0.11	0.0024	<0.005	<0.0005	0.01
	02/12/18	200.7/200.8	<0.001	0.21	<0.002	0.048	<0.006	0.041	<0.0005	0.53	<0.001	<0.005	<0.0005	0.01
	12/04/17	200.7/200.8	<0.001	0.41	<0.002	0.019	<0.006	0.039	<0.0005	0.25	<0.001	<0.005	<0.0005	0.011
	09/05/17	200.7/200.8	0.00034	0.31	<0.002	0.013	<0.006	0.058	<0.0005	0.055	<0.001	<0.005	<0.0005	0.022
	06/02/17	200.7/200.8	0.00037	0.22	<0.002	0.026	<0.006	0.23	<0.0005	0.13	<0.001	<0.005	<0.0005	0.012
	02/21/17	200.7/200.8	0.0039	0.13	<0.002	1.2	<0.006	91	0.00069	15	0.0032	<0.005	NA	0.057
	11/17/16	200.7/200.8	0.0025	0.085	<0.002	0.44	<0.006	47	<0.0005	16	0.0022	<0.005	0.0001	0.018
	06/07/16	200.7/200.8	0.0038	0.15	<0.002	0.44	<0.006	0.36	<0.0025	3.8	0.002	<0.005	0.0049	0.011
	03/01/16	200.7/200.8	0.0048	0.12	<0.002	0.41	<0.006	0.099	<0.0025	7.5	0.0036	<0.005	0.00044	0.017
	10/29/15	200.7/200.8	0.0052	0.21	<0.002	0.74	<0.006	0.051	<0.005	3.3	0.0029	<0.005	<0.005	<0.01
	08/11/15	200.7/200.8	<0.05	0.29	<0.002	0.88	<0.006	0.026	<0.05	2.8	<0.05	<0.005	<0.05	<0.01
	06/03/15	200.7/200.8	<0.01	0.28	<0.002	0.86	<0.006	0.086	<0.05	2.6	0.044	<0.005	<0.01	<0.01
	03/10/15	200.7/200.8	0.0047	0.14	<0.002	0.8	<0.006	0.5	<0.001	6.4	0.0024	<0.005	0.0013	0.028
	11/11/14	200.7/200.8	0.0013	0.074	<0.002	0.18	<0.006	1.4	<0.001	4.9	<0.001	<0.005	<0.001	<0.01
	06/03/14	200.7/200.8	0.021	0.32	<0.002	0.52	<0.006	0.025	<0.005	1.5	0.056	<0.005	<0.005	0.021
	03/10/14	200.7/200.8	<0.01	0.19	<0.002	0.71	<0.006	2.9	<0.01	3	0.051	<0.005	<0.01	0.11
	11/12/13	200.7/200.8	0.0097	0.34	<0.002	0.44	<0.006	0.08	<0.005	0.25	0.0078	<0.005	<0.005	0.019
	06/12/13	200.7/200.8	0.0063	0.56	<0.002	0.69	<0.006	0.049	<0.005	0.56	0.02	<0.005	<0.005	<0.01
	03/18/13	200.7/200.8	0.0063	0.45	<0.002	0.77	<0.006	0.047	0.0052	0.62	0.0056	<0.005	<0.001	<0.01
	11/28/12	200.7/200.8	0.01	0.51	<0.002	0.69	<0.006	0.055	<0.005	1	0.015	<0.005	<0.02	0.025
	08/21/12	200.7/200.8	0.0062	0.62	<0.002	0.46	<0.006	0.044	<0.005	1.2	<0.05	<0.005	<0.001	<0.01
	06/12/12	200.7/200.8	0.0051	0.59	<0.002	0.28	<0.006	0.062	<0.005	1.1	0.0092	<0.005	<0.005	0.011
	03/20/12	200.7/200.8	<0.005	0.42	<0.002	0.11	<0.006	0.9	<0.005	0.6	<0.005	<0.005	<0.005	0.035
	12/14/11	200.7/200.8	0.0035	0.31	<0.002	0.12	<0.006	0.21	<0.005	0.39	0.0018	<0.005	<0.001	<0.01
	09/26/11	200.7/200.8	0.0036	0.58	<0.002	0.11	<0.006	0.057	<0.005	0.55	0.0019	<0.005	<0.001	0.026
	06/15/11	200.7/200.8	0.016	0.11	<0.01	0.11	<0.03	1.2	<0.025	1.2	0.037	<0.025	<0.01	<0.05
	03/03/11	200.7/200.8	<0.005	0.48	<0.002	0.034	<0.006	0.11	<0.005	0.38	<0.05	<0.005	<0.005	<0.01
	11/11/10	6010B	<0.02	0.33	<0.002	0.046	<0.006	0.16	<0.005	0.59	<0.05	<0.005	<0.001	<0.05
	09/20/10	6010B	<0.02	0.31	<0.002	0.033	<0.006	0.14	<0.005	0.73	<0.05	<0.005	<0.005	<0.05
	03/18/10	6010B	<0.04	0.21	<0.004	0.22	<0.012	0.86	<0.01	2	<0.1	<0.01	<0.001	<0.1



8.10.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Dissolved Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD												
West LDU <sup>2</sup>	11/19/19	200.7/200.8	<0.005	0.063	<0.002	0.095	<0.006	45	<0.0005	19	<0.005	0.0061	0.00076	0.027
	08/22/19	200.7/200.8	0.00061	0.066	<0.002	0.11	<0.006	34	<0.0025	28	<0.005	0.0054	0.00062	0.0082
	05/28/19	200.7/200.8	0.00025	0.076	<0.002	0.16	<0.006	750	<0.0025	76	0.0004	<0.005	<0.0025	0.07
	04/09/19	200.7/200.8	<0.005	0.01	<0.002	0.66	<0.006	1400	<0.0025	81	<0.005	<0.005	<0.0025	0.039
	04/30/18	200.7/200.8	0.005	0.092	<0.002	0.68	<0.006	0.31	<0.0025	1.7	0.0075	0.0047	0.00058	0.04
	02/21/18	200.7/200.8	<0.005	0.086	<0.002	0.37	<0.006	0.19	<0.0025	1.6	<0.005	0.012	0.00097	0.04
	12/04/17	200.7/200.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/05/17	200.7/200.8	0.0044	0.11	<0.002	1.3	<0.006	26	<0.0005	9.3	0.0035	<0.005	0.00074	0.14
	06/02/17	200.7/200.8	0.0022	0.11	<0.002	0.33	<0.006	44	<0.0005	17	0.0017	0.0011	0.0023	0.052
	02/21/17	200.7/200.8	0.0068	0.22	<0.002	2.2	<0.006	0.59	<0.0025	2.6	0.0054	<0.005	NA	0.019
	11/17/16	200.7/200.8	0.004	0.24	<0.002	0.67	<0.006	0.17	<0.0005	0.51	0.0045	<0.005	0.00066	0.0045
	06/07/16	200.7/200.8	0.0051	0.43	<0.002	0.0013	<0.006	0.2	0.00043	0.54	0.003	<0.005	0.00034	0.01
	03/01/16	200.7/200.8	0.0066	0.29	<0.002	1.4	<0.006	0.13	<0.005	0.99	0.0073	<0.005	0.00082	0.0073
	10/29/15	200.7/200.8	0.0056	0.6	<0.002	1.2	<0.006	0.086	<0.005	0.79	0.0082	<0.005	<0.01	<0.01
	08/11/15	200.7/200.8	<0.05	0.41	<0.002	1.2	<0.006	0.21	<0.025	0.55	<0.05	<0.005	<0.025	<0.01
	03/10/15	200.7/200.8	0.0033	0.27	<0.002	0.66	<0.006	0.42	<0.005	1.3	0.0052	<0.005	<0.005	0.033
	09/11/14	200.7/200.8	<0.005	0.49	<0.002	0.27	<0.006	1.3	<0.01	0.64	<0.005	<0.005	<0.01	0.26
	06/03/14	200.7/200.8	<0.002	0.082	<0.002	0.043	<0.006	0.92	<0.001	1.9	0.0027	<0.005	0.0011	0.022
	03/10/14	200.7/200.8	<0.001	0.061	<0.002	0.11	<0.006	2.6	<0.001	3.6	0.0023	<0.005	<0.001	0.088
	11/12/13	200.7/200.8	0.01	0.17	<0.002	0.14	<0.006	0.093	<0.005	1.3	0.044	<0.005	<0.005	0.023
	09/05/13	200.7/200.8	0.0086	0.23	<0.002	0.28	<0.006	29	<0.005	2	0.015	<0.025	<0.005	0.35
	06/12/13	200.7/200.8	<0.01	0.22	<0.002	0.036	<0.006	0.19	<0.01	0.29	0.11	<0.005	<0.01	<0.01
	03/18/13	200.7/200.8	<0.005	0.13	<0.002	0.04	<0.006	0.07	<0.005	0.31	0.013	<0.005	<0.005	<0.01
	11/28/12	200.7/200.8	<0.005	0.16	<0.002	0.071	<0.006	0.38	<0.005	0.55	0.013	<0.005	<0.05	0.04
	08/21/12	200.7/200.8	0.002	0.38	<0.002	0.032	<0.006	0.15	<0.005	0.21	<0.05	<0.005	<0.001	0.014
	06/12/12	200.7/200.8	<0.005	0.35	<0.002	0.019	<0.006	0.09	<0.005	0.2	0.0075	<0.005	<0.005	<0.01
	03/20/12	200.7/200.8	0.0018	0.21	<0.002	0.013	<0.006	0.61	<0.005	0.22	0.0038	<0.005	<0.001	0.02
	12/14/11	200.7/200.8	0.0071	0.3	<0.002	0.066	<0.006	1.3	<0.005	0.31	<0.005	<0.005	<0.005	0.04
	09/26/11	200.7/200.8	0.0044	0.21	NL	0.067	<0.006	0.14	<0.005	0.86	0.0075	<0.005	<0.001	0.013
	06/15/11	200.7/200.8	0.013	0.61	<0.01	0.091	<0.03	0.33	<0.025	1.1	0.031	<0.025	<0.005	<0.05
	03/03/11	200.7/200.8	<0.005	0.46	<0.002	0.077	<0.006	2.1	<0.005	1.3	<0.05	<0.005	<0.005	0.012
	11/11/10	6010B	<0.02	0.56	<0.002	0.18	<0.006	0.22	<0.005	0.81	<0.05	<0.005	<0.001	<0.05
	09/20/10	6010B	<0.02	0.25	<0.002	0.062	<0.006	0.12	<0.005	0.81	<0.05	<0.005	<0.005	<0.05
	03/18/10	6010B	<01	0.16	<0.01	2.3	<0.03	3.2	<0.025	2.9	<0.25	<0.025	<0.001	<0.25



8.10.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)  
Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)														
40 CFR 141.62 MCL														
NMED TAP WATER (JUNE 2019)														
EPA RSL TAP WATER (NOVEMBER 2019)														
SAMPLE ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
Oil Sump LDU <sup>1</sup>	06/12/13	200.7/200.8	<0.02	0.43	<0.002	0.11	<0.006	0.13	<0.02	1.2	0.074	<0.005	<0.02	<0.01
	03/18/13	200.7/200.8	0.011	0.29	<0.002	0.1	<0.006	0.15	<0.005	1.1	0.013	<0.005	<0.05	0.026
	11/28/12	200.7/200.8	0.014	0.32	<0.002	0.08	<0.006	0.37	<0.005	1.1	0.013	<0.005	<0.02	0.06
	08/21/12	200.7/200.8	0.011	0.4	<0.002	0.061	<0.006	0.19	<0.005	1.1	<0.05	<0.005	<0.001	0.015
	06/12/12	200.7/200.8	0.0095	0.35	<0.002	0.046	<0.006	0.51	<0.005	0.83	0.012	<0.005	<0.005	0.016
	03/20/12	200.7/200.8	0.007	0.23	<0.002	0.047	<0.006	0.33	<0.005	0.79	0.02	<0.005	<0.005	0.024
	12/14/11	200.7/200.8	0.0062	0.23	<0.002	0.03	<0.006	0.28	<0.005	0.35	0.011	<0.005	<0.001	0.015
	09/26/11	200.7/200.8	0.0062	0.24	<0.002	0.058	<0.006	0.1	<0.005	0.53	0.011	<0.005	<0.001	0.015
	06/15/11	200.7/200.8	0.0048	0.46	<0.01	0.033	<0.03	<0.1	<0.025	0.33	0.0041	<0.025	<0.002	<0.05
	03/03/11	200.7/200.8	<0.005	0.049	<0.002	0.054	<0.006	2.4	<0.005	0.75	0.071	<0.005	<0.005	0.01
	11/10/10	6010B	<0.02	0.19	<0.002	0.037	<0.006	0.15	0.0075	1.2	<0.05	<0.005	<0.001	<0.05
	09/20/10	6010B	<0.02	0.32	<0.002	0.03	<0.006	0.12	0.0056	1.1	<0.05	<0.005	<0.025	<0.05

DEFINITIONS

NA = Not analyzed; NE = Not established.  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
a) Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1  
EPA Regional Screening Level (RSL) Summary Table

NOTES

- 1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014, 2015, 2016 and 2017 - dry.  
2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.  
3) East LDU - No samples collected third quarter 2014.











8.10.3 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Volatile Organic Compound Analytical Result Summary

STANDARDS		PARAMETERS															
		1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Tert-Butyl benzene (mg/L)
	WQCC 20 NMAC 6.2.3103 (DECEMBER 2018)	NE	NE	0.03	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	NE	NE	0.005
	40 CFR 141.62 MCL	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	NE	NE	0.005
	NMED TAP WATER (Rev 2. JUN2019)	NE	NE	0.00165	0.0114	0.035	14.06	0.81	0.447	NE	1.24	0.1180	NE	NE	NE	NE	0.00259
	EPA RSL for Tap Water (NOV 2019)	0.056	0.06	0.00017	0.011	0.036	14	0.81	0.45	NE	6.3	0.011	1	0.66	2	0.69	0.00049
SAMPLE ID	DATE SAMPLED	METHOD															

DEFINITIONS

NA = Not analyzed; NE = Not established.

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

- 1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014, 2015, 2016 and 2017 - dry.
- 2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.
- 3) East LDU - No samples collected third quarter 2014.



# 8.11 RW-1, RW-2, RW-5, RW-6

## BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
RW-1 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed				
	3rd Qtr 2018 - 2015	--	Not Sampled - SPH Detected				
	09/18/14	8260B	37	35	1.8	10	1.2
	09/16/13	8260B	54	35	2.4	13	2.2
	08/23/12	8260B	45	82	4.9	31	3.1
	10/03/11	8260B	51	37	3.7	23	2.9
RW-2 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed				
	08/28/18	8260B	48	4	1.5	3.8	1.1
	05/08/18	8260B	46	5	1.5	4.2	1.2
	02/20/18	8260B	42	3.7	1.5	3.8	1.2
	12/06/17	8260B	38	2.9	1.5	3.6	1.3
	09/19/17	8260B	37	6.7	1.2	4	1.3
	06/20/17	8260B	47	9	1.4	4.6	1.7
	03/16/17	8260B	37	2.3	1.3	3.1	1.6
	11/16/16	8260B	38	3.4	1.2	3.2	1.7
	09/13/16	8260B	38	3.8	1.2	3.1	1.6
	06/08/16	8260B	36	2.9	1.1	3.1	1.7
	03/07/16	8260B	46	4.1	1.2	3.5	1.9
	08/23/15	8260B	42	6.9	1.1	3.7	1.8
	09/18/14	8260B	40	4.5	0.86	2.5	1.9
	09/16/13	8260B	48	3.4	0.87	2.3	2.8
	08/24/12	8260B	42	2.6	0.59	1.7	3.3
	10/03/11	8260B	39	5.3	0.57	1.5	3.7
RW-5 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed				
	2nd Qtr 2017 - 3rd Qtr 2018	--	Not Sampled - SPH Detected				
	03/16/17	8260B	0.64	0.0028	0.41	0.094	0.0077
	11/16/16	8260B	0.72	0.0035	0.34	0.13	0.0012
	09/13/16	8260B	0.57	0.0035	0.26	0.12	<0.005
	06/07/16	8260B	0.54	0.0038	0.15	0.11	0.0042
	03/07/16	8260B	0.39	0.0024	0.15	0.086	0.0026
	10/29/15	8260B	0.5	<0.01	0.13	0.095	<0.01
	08/23/15	8260B	0.43	<0.005	0.037	0.07	<0.005
	09/18/14	8260B	0.35	<0.01	0.11	0.056	<0.01
	09/16/13	8260B	0.37	<0.01	0.11	0.089	<0.01
	08/23/12	8260B	0.19	<0.01	0.26	0.091	0.032
	10/04/11	8260B	0.56	<0.01	0.21	0.26	0.095
RW-6 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed				
	2nd Qtr 2017 - 3rd Qtr 2018	--	Not Sampled - SPH Detected				
	03/16/17	8260B	0.28	0.28	0.63	1.4	0.025
	11/16/16	8260B	0.27	0.12	0.29	0.78	0.014
	09/13/16	8260B	0.28	0.11	0.29	0.81	0.017
	03/07/16	8260B	0.39	0.19	0.51	0.086	0.021
	10/29/15	8260B	0.34	0.11	0.28	0.85	0.043
	08/23/15	8260B	0.36	0.071	0.093	0.67	0.05
	09/18/14	8260B	0.47	0.23	0.45	1.3	0.046
	09/16/13	8260B	0.68	<0.05	0.18	1.1	<0.05
	08/23/12	8260B	0.74	0.052	0.4	1.6	0.073
	10/04/11	8260B	0.87	0.029	0.33	<0.0015	<0.01



# 8.11 RW-1, RW-2, RW-5, RW-6

## BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

### NOTES:

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.



8.11.1 RW-1, RW-2, RW-3, RW-5

General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	600	NE	NE	NE
40 CFR 141.62 MCL			4	NE	1	10	NE	NE	10	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOVEMBER 2019)			0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD									
RW-1 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed								
	3rd Qtr 2018 - 2015	--	Not Sampled - SPH Detected								
	09/16/13	300.0	<0.5	370	<0.5	<0.5	<2.5	<2.5			
	08/23/12	300.0	<0.5	380	<1.0	<1.0	<2.5	<2.5			
	10/03/11	300.0	<0.5	410	220	220	<2.5	<2.5			
RW-2 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed								
	08/28/18	8015D	NA	NA	NA	NA	NA	NA	7.2	130	<5.0
	05/08/18	8015D	NA	NA	NA	NA	NA	NA	9	120	<5.0
	02/20/18	8015D	NA	NA	NA	NA	NA	NA	7.9	120	<5.0
	12/06/17	8015D	NA	NA	NA	NA	NA	NA	8.7	120	<5.0
	09/19/17	8015D	NA	NA	NA	NA	NA	NA	9.2	120	<5.0
	06/20/17	8015D	NA	NA	NA	NA	NA	NA	11	130	<5.0
	03/16/17	8015D	NA	NA	NA	NA	NA	NA	11	92	<5.0
	11/16/16	8015D	NA	NA	NA	NA	NA	NA	8.4	130	<5.0
	09/13/16	8015D	NA	NA	NA	NA	NA	NA	14	140	<5.0
	06/08/16	8015D	NA	NA	NA	NA	NA	NA	14	140	<5.0
	03/07/16	8015D	NA	NA	NA	NA	NA	NA	7.2	160	<5.0
	10/29/15	8015D	NA	NA	NA	NA	NA	NA	9.7	130	<5.0
	08/23/15	8015D	NA	NA	NA	NA	NA	NA	7.4	82	<5.0
	09/16/13	300.0	0.27	84	<0.1	<0.1	<0.5	1.7			
	08/24/12	300.0	<0.5	90	<1.0	<1.0	<2.5	<2.5			
	10/03/11	300.0	<0.5	130	67	67	<2.5	<2.5			
RW-5 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed								
	2nd Qtr 2017 - 3rd Qtr 2018	--	Not Sampled - SPH Detected								
	03/16/17	8015D	NA	NA	NA	NA	NA	NA	3.5	6.5	<5.0
	11/16/16	8015D	NA	NA	NA	NA	NA	NA	4.9	7.6	<5.0
	09/13/16	8015D	NA	NA	NA	NA	NA	NA	5.4	6.4	<5.0
	06/07/16	8015D	NA	NA	NA	NA	NA	NA	6.3	4.9	<5.0
	03/07/16	8015D	NA	NA	NA	NA	NA	NA	3.4	5.5	<5.0
	10/29/15	8015D	NA	NA	NA	NA	NA	NA	12	3.6	<5.0
	08/23/15	8015D	NA	NA	NA	NA	NA	NA	4.1	2.2	<5.0
	09/16/13	300.0	0.89	5.6	<0.1	<0.1	<0.5	<0.5			
	08/23/12	300.0	0.8	11	<1.0	<1.0	<2.5	<2.5			
	10/04/11	300.0	0.54	26	14	14	<2.5	<2.5			
RW-6 <sup>1</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed								
	2nd Qtr 2017 - 3rd Qtr 2018	--	Not Sampled - SPH Detected								
	03/16/17	8015D	NA	NA	NA	NA	NA	NA	8.5	13	<50
	11/16/16	8015D	NA	NA	NA	NA	NA	NA	240	7.1	<50
	09/13/16	8015D	NA	NA	NA	NA	NA	NA	1200	11	<500
	06/07/16	8015D	NA	NA	NA	NA	NA	NA	35	7	<5.0
	03/07/16	8015D	NA	NA	NA	NA	NA	NA	6.1	12	<50
	10/29/15	8015D	NA	NA	NA	NA	NA	NA	340	6.2	<50
	08/23/15	8015D	NA	NA	NA	NA	NA	NA	1400	4.9	<500
	09/16/13	300.0	<0.5	45	<0.5	<0.5	<2.5	<2.5			
	08/23/12	300.0	<0.5	45	<1.0	<1.0	<2.5	<2.5			
	10/04/11	300.0	<0.5	80	<1.0	<1.0	<2.5	<2.5			



### 8.11.1 RW-1, RW-2, RW-3, RW-5

#### General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	NE	600	NE	NE	NE
40 CFR 141.62 MCL			4	NE	1	10	NE	NE	10	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOVEMBER 2019)			0.8	NE	2	32	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD									

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

#### NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.



8.11.2 RW-1, RW-2, RW-5, RW-6  
Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD												
RW-1 <sup>1</sup>	09/18/14	200.7/200.8												
	09/16/13	200.7/200.8												
	08/23/12	200.7/200.8												
	10/03/11	200.7/200.8												
RW-2 <sup>1</sup>	09/18/14	200.7/200.8												
	09/16/13	200.7/200.8												
	08/24/12	200.7/200.8												
	10/03/11	200.7/200.8												
RW-5 <sup>1</sup>	09/18/14	200.7/200.8												
	09/16/13	200.7/200.8												
	08/23/12	200.7/200.8												
	10/04/11	200.7/200.8												
RW-6 <sup>1</sup>	09/18/14	200.7/200.8												
	09/16/13	200.7/200.8												
	08/23/12	200.7/200.8												
	10/04/11	200.7/200.8												

DEFINITIONS

NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.  
Metals(Total and Dissolved) no longer required per NMED Comment 7(f), Approval with Modifications...dated July 24, 2015.



8.11.3 RW-1, RW-2, RW-5, RW-6

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE	
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96	
EPA RSL for Tap Water (NOVEMBER 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.004	6	
WELL ID	DATE SAMPLED	METHOD													
RW-1 <sup>1</sup>	09/18/14	200.7/200.8	<0.01	3.6	<0.002	<0.006	<0.006	<0.006	9.6	<0.001	3.3	<0.01	<0.005	0.0014	0.067
	09/16/13	200.7/200.8	0.0082	5.3	<0.002	<0.006	<0.006	<0.006	11	<0.001	3.5	0.012	<0.05	<0.001	0.017
	08/23/12	200.7/200.8	0.009	3.6	<0.002	<0.006	<0.006	<0.006	7.6	<0.005	3.6	0.0062	<0.005	0.0041	0.021
	10/03/11	200.7/200.8	0.0071	5	<0.002	<0.006	<0.006	<0.006	5.2	<0.005	3.3	0.013	<0.005	0.0028	0.067
RW-2 <sup>1</sup>	09/18/14	200.7/200.8	<0.01	3.8	<0.002	<0.006	<0.006	<0.006	13	<0.001	2.4	<0.01	<0.005	<0.001	0.023
	09/16/13	200.7/200.8	0.0057	3.9	<0.002	<0.006	<0.006	<0.006	11	<0.001	2.2	0.0076	<0.1	<0.001	<0.01
	08/24/12	200.7/200.8	0.0073	3.5	<0.002	<0.006	<0.006	<0.006	10	<0.005	2.1	0.0046	<0.005	<0.001	0.023
	10/03/11	200.7/200.8	0.006	2.8	<0.002	<0.006	<0.006	<0.006	6.1	<0.005	2	0.01	<0.005	<0.001	<0.01
RW-5 <sup>1</sup>	09/18/14	200.7/200.8	0.002	1.9	<0.002	<0.006	<0.006	<0.006	2.6	<0.001	0.5	<0.001	<0.005	<0.001	0.049
	09/16/13	200.7/200.8	0.002	2.5	<0.002	<0.006	<0.006	<0.006	3.3	<0.001	0.61	<0.001	<0.005	<0.001	<0.01
	08/23/12	200.7/200.8	0.0022	2.7	<0.002	<0.006	<0.006	<0.006	3.7	<0.005	0.69	0.001	<0.005	<0.001	0.017
	10/04/11	200.7/200.8	0.0048	3.1	<0.002	<0.006	<0.006	<0.006	5.4	<0.005	0.89	0.0035	<0.005	<0.001	<0.01
RW-6 <sup>1</sup>	09/18/14	200.7/200.8	0.014	3.2	<0.002	<0.006	<0.006	<0.006	6.5	0.0049	0.75	<0.005	<0.005	<0.001	0.024
	09/16/13	200.7/200.8	0.0096	3.6	<0.002	<0.006	<0.006	<0.006	7.1	0.0034	0.87	0.0025	<0.005	<0.001	0.032
	08/23/12	200.7/200.8	0.015	3.7	<0.002	<0.006	<0.006	<0.006	8.3	0.0091	0.92	0.0016	<0.005	<0.001	0.021
	10/04/11	200.7/200.8	0.016	4.1	<0.002	<0.006	<0.006	<0.006	10	0.007	1.1	0.0044	<0.005	<0.001	<0.01

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

Metals(Total and Dissolved) no longer required per NMED Comment 7(f), Approval with Modifications....dated July 24, 2015.







Volatile Organic Compounds Analytical Result Summary

PARAMETERS																	
STANDARDS																	
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Chloro methane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)
40 CFR 141.61 MCL			NE	NE	0.03	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE
NMED TAP WATER (JUNE 2019)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE
EPA RSL for Tap Water (NOVEMBER 2019)			0.056	0.060	0.00017	0.0011	0.036	14	5.6	0.0203	0.447	NE	NE	NE	NE	1.21	NE
			0.69														
WELL ID	DATE SAMPLED	METHOD															
RW-6 <sup>2</sup>	4th Qtr 2018 - 2019	--	Did not gauge or sample - recovery apparatus installed														
	2nd Qtr 2017 - 3rd Qtr 2018	--	Not Sampled - SPH Detected														
	03/16/17	8260B	0.061	0.13	0.59	0.27	0.29	<0.1	<0.1	<0.03	0.044	0.01	0.022	0.096	0.012	<0.01	<0.01
	11/16/16	8260B	0.06	0.1	0.61	0.33	0.35	<0.1	<0.1	<0.03	0.024	0.011	0.015	0.048	0.0088	<0.01	0.0014
	09/13/16	8260B	0.064	0.12	0.55	0.28	0.37	<0.1	0.0093	<0.03	0.028	0.014	0.02	0.055	0.011	<0.01	
	06/07/16	8260B	0.074	0.12	0.54	0.31	0.38	<0.1	<0.1	<0.03	0.025	0.012	0.029	0.054	0.01	<0.01	
	03/07/16	8260B	0.075	0.13	0.59	0.28	0.33	0.035	0.014	<0.03	0.012	0.0048	0.014	0.032	0.01	<0.005	
	10/29/15	8260B	0.09	0.1	0.68	0.32	0.41			<0.03	0.025	0.01		0.044	<0.01	<0.01	
	08/23/15	8260B	0.095	0.11	0.41	0.22	0.29			<0.03	<0.01	0.01		0.012	<0.01	<0.01	
	09/18/14	8260B	0.17	0.17	0.57	0.19	0.28			<0.03	0.045	0.011		0.11	0.011	<0.01	
	09/16/13	8260B	0.28	0.14	0.48	0.2	0.27			<0.15	<0.05	<0.05		<0.05	<0.05	<0.05	
	08/23/12	8260B	0.38	0.17	0.58	0.22	0.36			<0.15	<0.05	<0.05		0.074	<0.05	<0.05	
	10/04/11	8260B	0.42	0.16	0.52	0.21	0.31			<0.03	0.043	0.015		0.078		<0.01	

NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

2) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.











**8.12 OW-1, OW-10**
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-1	10/16/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0017
	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0019
	05/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0022
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0073
	11/08/18	8260B	0.00058	<0.001	0.00023	<0.0015	0.0018
	09/11/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0019
	05/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	02/27/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0011
	12/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0014
	09/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	05/31/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0016
	02/27/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0014
	11/15/16	8260B	0.0016	<0.001	0.00039	<0.0015	0.00088
	09/06/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00088
	06/06/16	8290B	0.00013	<0.001	<0.001	<0.0015	0.001
	03/03/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00074
	10/28/15	8260B	0.0014	0.0024	<0.001	0.0022	0.0016
	08/12/15	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	06/03/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/11/14	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	06/03/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/07/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/11/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/04/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/13/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/19/13	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/13/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/01/11	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/10/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/21/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/15/10	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001



## 8.12 OW-1, OW-10

## BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-10	10/17/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	08/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	05/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	03/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0015
	11/08/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	09/11/18	8260b	<0.001	<0.001	<0.001	<0.0015	0.019
	05/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	02/27/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.027
	12/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.027
	09/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.020
	05/31/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.022
	02/27/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.019
	11/15/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
	09/06/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.035
	06/06/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.033
	03/03/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.039
	10/28/15	8260B	<0.001	0.0023	0.0011	0.0042	0.051
	08/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	06/03/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.055
	03/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.061
	11/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.098
	09/12/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.11
	06/03/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.092
	03/07/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.079
	11/11/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.062
	09/04/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.065
	06/13/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.22
	03/19/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.17
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.23
	08/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.044
	06/13/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.13
	03/22/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	12/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	10/26/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.038
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.046
	02/28/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	11/10/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	09/21/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.037
	03/15/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.033



## 8.12 OW-1, OW-10

### BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



## 8.12.1 OW-1, OW-10

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1	10	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD								
OW-1	10/16/19	300.0/8015D	0.27	100	0.24	0.24	170	<1.0	<0.05	<5.0
	08/15/19	300.0/8015D	0.26	110	<0.5	0.26	170	<1.0	<0.05	<5.0
	05/21/19	300.0/8015D	0.31	110	<0.5	0.34	180	<1.0	<0.05	<5.0
	03/27/19	300.0/8015D	0.29	98	<0.5	0.3	170	<1.0	<0.05	<5.0
	11/08/18	300.0/8015D	<0.5	110	0.071	0.34	170	<1.0	<0.05	<5.0
	09/11/18	300.0/8015D	0.19	110	0.28	0.28	160	<1.0	<0.05	<5.0
	05/15/18	300.0/8015D	0.11	110	0.35	0.35	140	<1.0	<0.05	<5.0
	02/27/18	300.0/8015D	<0.5	94	0.36	0.36	170	<1.0	<0.05	<5.0
	12/08/17	300.0/8015D	0.23	96	0.28	0.28	170	<1.0	0.012	<5.0
	09/07/17	300.0/8015D	<0.50	110	0.34	0.34	170	<1.0	<0.05	<5.0
	05/31/17	300.0/8015D	0.18	91	0.28	0.28	160	<1.0	<0.05	<5.0
	02/27/17	300.0/8015D	0.21	86	<0.10	0.28	160	<1.0	<0.05	<5.0
	11/15/16	300.0/8015D	0.25	81	<1.0	0.29	160	<1.0	<0.05	<5.0
	09/06/16	300.0/8015D	<0.5	83	0.72	0.72	180	<1.0	<0.05	<5.0
	06/06/16	300.0/8015D	0.24	74	0.49	0.49	170	<1.0	<0.05	<5.0
	03/03/16	300.0/8015D	0.27	70	<0.1	0.25	160	<1.0	<0.05	<5.0
	10/08/15	300.0/8015B	0.25	71	<1.0	<1.0	160	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	0.29	68	<1.0	<1.0	160	<1.0	<0.1	<5.0
	06/03/15	300.0/8015D	<0.5	77	<1.0	<1.0	190	<1.0	<0.05	<5.0
	03/09/15	300.0/8015D	0.23	67	<1.0	<1.0	170	<1.0	<0.05	<5.0
	11/10/14	300.0/8015B	0.3	72	<0.1	0.3	170	<1.0	<0.05	<5.0
	09/11/14	300.0/8015B	<0.5	60	<1.0	<1.0	150	<1.0	<0.05	<5.0
	06/03/14	300.0/8015B	0.26	66	<1.0	<1.0	160	<1.0	<0.05	<5.0
	03/07/14	300.0/8015B	0.3	65	<1.0	<1.0	170	<1.0	<0.05	<5.0
	11/11/13	300.0/8015B	0.28	65	4.7	4.7	170	<1.0	<0.05	NA
	09/04/13	300.0/8015B	0.3	66	29	29	180	<1.0	<0.05	<5.0
	06/13/13	300.0/8015B	<1.0	61	<1.0	<1.0	180	<1.0	<0.05	<5.0
	03/19/13	300.0/8015B	<0.5	70	<1.0	<1.0	200	<1.0	<0.05	<5.0
	11/27/12	300.0/8015B	<0.5	72	<1.0	<1.0	180	<1.0	<0.05	<5.0
	08/22/12	300.0/8015B	0.24	62	<1.0	<1.0	170	<1.0	<0.05	<5.0
	06/13/12	300.0/8015B	0.34	61	<1.0	<1.0	180	<1.0	<0.05	<5.0
	03/22/12	300.0/8015B	0.34	62	<0.1	0.33	170	<1.0	<0.05	<5.0
	12/15/11	300.0/8015B	0.31	63	<1.0	<1.0	180	<1.0	<0.05	NL
	10/27/11	300.0/8015B	0.3	65	<1.0	<1.0	180	NL	<0.05	<5.0
	06/20/11	300.0/8015B	0.33	64	<0.1	0.5	180	<1.0	<0.05	<1.0
	03/01/11	300.0/8015B	0.29	68	1.1	1.1	180	<1.0	<0.05	
	11/10/10	300.0/8015B	0.31	64	<1.0	<1.0	180	<1.0	<0.05	
	09/10/10	300.0/8015B	0.32	60	<1.0	<1.0	190	<1.0	<0.05	
	03/15/10	300.0/8015B	0.33	58	4.1	4.1	190	<1.0	<0.05	



## 8.12.1 OW-1, OW-10

## General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1	10	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD								
OW-10	10/17/19	300.0/8015D	0.16	1100	<0.5	0.75	230	<1.0	<0.05	<5.0
	08/15/19	300.0/8015D	0.19	860	<0.5	0.75	220	<1.0	<0.05	<5.0
	05/28/19	300.0/8015D	<0.5	530	<0.5	0.87	180	<1.0	<0.05	<5.0
	03/27/19	300.0/8015D	<0.5	460	<0.5	0.94	230	<1.0	<0.05	<5.0
	11/08/18	300.0/8015D	<0.5	860	0.23	0.94	220	<1.0	<0.05	<5.0
	09/11/18	300.0/8015D	<0.5	830	<0.5	1	250	<1.0	<0.05	<5.0
	05/15/18	300.0/8015D	<0.1	850	0.89	0.89	200	<1.0	<0.05	<5.0
	02/27/18	300.0/8015D	<0.5	390	1.2	1.2	220	<1.0	0.026	<5.0
	12/07/17	300.0/8015D	<0.5	650	0.76	0.76	230	<1.0	0.022	<5.0
	09/07/17	300.0/8015D	<0.5	740	0.59	0.59	210	<1.0	0.036	<5.0
	05/31/17	300.0/8015D	0.063	870	0.47	0.47	180	<1.0	0.027	<5.0
	02/27/17	300.0/8015D	0.14	440	<2.0	0.55	180	<1.0	<0.05	<5.0
	11/15/16	300.0/8015D	0.2	550	<1.0	<0.5	190	<1.0	0.04	<5.0
	09/06/16	300.0/8015D	<0.5	1100	<1.0	<1.0	230	<1.0	<0.05	<5.0
	06/06/16	300.0/8015D	0.22	960	0.49	0.49	200	<1.0	0.047	<5.0
	03/03/16	300.0/8015D	0.2	1100	<2.0	0.4	200	<1.0	0.046	<5.0
	10/28/15	300.0/8015B	<0.1	1500	<1.0	<1.0	220	<1.0	<0.05	<5.0
	08/12/15	300.0/8015D	<0.1	1900	<1.0	<1.0	240	<1.0	0.064	<5.0
	06/03/15	300.0/8015D	<0.5	1500	<1.0	<1.0	240	<1.0	0.067	<5.0
	03/09/15	300.0/8015D	0.22	840	<1.0	<1.0	200	<1.0	<0.05	<5.0
	11/10/14	300.0/8015B	0.2	1600	<2.0	0.22	200	<1.0	0.087	<5.0
	09/12/14	300.0/8015B	0.12	1500	<1.0	<1.0	200	<1.0	0.064	<5.0
	06/03/14	300.0/8015B	<0.1	1500	<4.0	<4.0	200	<1.0	0.069	<5.0
	03/07/14	300.0/8015B	0.2	1200	<1.0	<1.0	190	<1.0	<0.05	<5.0
	11/11/13	300.0/8015B	0.17	850	1.3	1.3	150	<1.0	0.055	NA
	09/04/13	300.0/8015B	0.19	1200	11	11	180	<1.0	0.051	<5.0
	06/13/13	300.0/8015B	<1.0	2400	<1.0	<1.0	250	<1.0	0.15	<5.0
	03/19/13	300.0/8015B	<0.5	1700	<1.0	<1.0	230	<1.0	0.11	<5.0
	11/27/12	300.0/8015B	<0.5	2100	<4.0	<4.0	240	<1.0	0.13	<5.0
	08/22/12	300.0/8015B	0.34	280	<1.0	<1.0	130	<1.0	<0.05	<5.0
	06/13/12	300.0/8015B	0.31	980	<1.0	<1.0	160	<1.0	0.14	<5.0
	03/22/12	300.0/8015B	0.41	260	<0.1	0.59	140	<1.0	0.062	<5.0
	12/15/11	300.0/8015B	0.31	420	<1.0	<1.0	150	<1.0	0.084	<5.0
	10/26/11	300.0/8015B	0.34	500	<2.0	0.38	140	NL	<0.05	NL
	06/20/11	300.0/8015B	<0.50	300	<2.0	0.52	140	<1.0	0.053	<5.0
	02/28/11	300.0/8015B	0.34	490	1.1	1.1	140	<1.0	0.062	<5.0
	11/10/10	300.0/8015B	0.38	450	<1.0	<1.0	150	<0.001	<0.05	
	09/21/10	300.0/8015B	0.35	790	<1.0	<1.0	160	<0.001	<0.05	
	03/15/10	300.0/8015B	0.4	390	2.2	2.2	150	<0.001	0.064	



### 8.12.1 OW-1, OW-10

#### General Chemistry and DRO/GRO/MRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	1	10	NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD								

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)







8.12.2 OW-1, OW-10  
Total Metals Analytical Result Summary

PARAMETERS															
STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (Rev 2. JUN 2019)															
EPA RSL for Tap Water (NOV 2019)															
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)	
OW-10	03/15/10	6010B	<0.02	0.031	<0.002	<0.006	0.16	<0.005	0.012	<0.05	<0.005	0.0394	<0.0002	<0.02	
	10/16/19	200.7/200.8	<0.005	0.066	<0.002	<0.006	0.0099	<0.0025	0.15	0.0089	0.0039	0.055	<0.0002	<0.01	
	08/15/19	200.7/200.8	0.00077	0.054	<0.002	<0.006	<0.02	0.00013	0.088	0.0096	0.0018	0.05	<0.0002	<0.01	
	05/28/19	200.7/200.8	0.00075	0.049	<0.002	<0.006	0.01	0.00012	0.037	0.01	<0.005	0.044	<0.0002	<0.01	
	03/27/19	200.7/200.8	0.00052	0.043	<0.002	<0.006	<0.02	0.00014	0.035	0.0088	<0.005	0.049	0.00011	<0.01	
	11/08/18	200.7/200.8	0.0017	0.053	<0.002	<0.006	0.028	<0.0005	0.064	0.011	0.0026	0.048	0.000079	<0.01	
	09/11/18	200.7/200.8	0.0013	0.055	<0.002	<0.006	0.013	<0.0005	0.084	0.01	0.0036	0.054	0.000094	<0.01	
	05/15/18	200.7/200.8	0.0017	0.054	<0.002	<0.006	<0.02	<0.0005	0.075	0.012	0.0014	0.056	0.000098	<0.01	
	02/27/18	200.7/200.8	0.0041	0.047	<0.002	<0.006	0.075	<0.0005	0.015	0.0096	0.0014	0.05	0.000092	<0.01	
	12/07/17	200.7/200.8	0.0023	0.049	<0.002	<0.006	<0.02	<0.0025	0.069	0.014	<0.005	0.052	<0.0002	<0.01	
	09/07/17	200.7/200.8	0.0022	0.059	<0.002	<0.006	0.018	0.00026	0.063	0.016	<0.005	0.057	<0.0002	<0.01	
	05/31/17	200.7/200.8	0.0018	0.057	<0.002	<0.006	<0.02	0.00023	0.075	0.0096	<0.005	NA	<0.0002	<0.01	
	02/27/17	200.7/200.8	0.002	0.042	<0.002	<0.006	<0.02	0.0002	0.040	0.011	<0.005	NA	<0.0002	<0.01	
	11/15/16	200.7/200.8	0.0021	0.047	<0.002	<0.006	<0.02	<0.0025	0.047	0.016	0.0027	0.055	0.000062	<0.01	
	09/06/16	200.7/200.8	0.0035	0.061	<0.002	<0.006	<0.02	0.00019	0.11	0.013	<0.005	0.056	0.000058	<0.01	
	06/06/16	200.7/200.8	0.0023	0.064	<0.002	<0.006	0.01	0.00024	0.11	0.015	0.015	<0.005	0.057	0.000066	<0.01
	03/03/16	200.7/200.8	0.0015	0.068	<0.002	<0.006	<0.02	0.00026	0.11	0.013	0.013	0.0038	0.06	<0.0002	<0.01
	10/28/15	200.7/200.8	<0.005	0.095	<0.002	<0.006	<0.02	<0.0025	<0.0025	0.22	0.013	<0.005	0.061	<0.0002	<0.01
	08/12/15	200.7/200.8	<0.005	0.11	<0.002	<0.006	0.038	<0.0005	0.33	0.011	0.011	<0.005	0.064	<0.0002	0.011
	06/03/15	200.7/200.8	<0.01	0.095	<0.002	<0.006	<0.006	<0.02	<0.005	0.15	<0.02	<0.005	0.063	<0.0002	<0.01
	03/09/15	200.7/200.8	<0.005	0.067	<0.002	<0.006	<0.006	<0.02	<0.001	0.087	0.012	<0.005	0.061	<0.0002	<0.01
	11/10/14	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.006	<0.02	<0.001	0.18	<0.02	<0.005	0.066	<0.0002	<0.01
	09/12/14	200.7/200.8	<0.01	0.086	<0.002	<0.006	<0.006	<0.02	<0.001	0.18	0.017	<0.005	0.065	<0.0002	<0.01
	06/03/14	200.7/200.8	<0.005	0.094	<0.002	<0.006	<0.006	<0.02	<0.001	0.14	0.015	<0.005	0.064	<0.0002	<0.01
03/07/14	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.006	<0.02	<0.001	0.086	0.012	<0.005	0.06	<0.0002	<0.01	
11/11/13	200.7/200.8	0.0018	0.058	<0.002	<0.006	<0.006	<0.02	<0.001	0.07	0.011	<0.005	0.057	<0.0002	<0.01	
09/04/13	200.7/200.8	<0.005	0.084	<0.002	<0.006	<0.006	<0.02	<0.001	0.12	0.011	<0.025	0.061	<0.0002	<0.01	
06/13/13	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.006	<0.02	NA	0.14	0.017	0.015	0.076	<0.0002	<0.01	
03/19/13	200.7/200.8	<0.0025	0.11	<0.002	<0.006	<0.006	<0.02	<0.005	0.16	0.0098	<0.005	0.077	<0.0002	<0.01	
11/27/12	200.7/200.8	<0.0025	0.11	<0.002	<0.006	<0.006	<0.006	<0.005	0.13	0.013	<0.005	0.087	<0.0002	<0.01	
08/22/12	200.7/200.8	<0.0025	0.037	<0.002	<0.006	<0.006	<0.006	<0.005	0.0034	0.0084	<0.005	0.049	<0.0002	<0.01	
06/13/12	200.7/200.8	<0.0025	0.079	<0.002	<0.006	<0.006	<0.006	<0.005	0.054	0.013	<0.005	0.062	<0.0002	<0.01	
OW-10 (continued)	03/22/12	200.7/200.8	<0.0025	0.033	<0.002	<0.006	<0.006	<0.005	<0.002	0.0076	<0.005	0.051	<0.0002	<0.01	
	12/15/11	200.7/200.8	<0.0025	0.037	<0.002	<0.006	<0.02	<0.005	0.022	0.0089	<0.005	0.058	<0.0002	<0.01	
	10/26/11	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.043	0.0071	<0.005	0.051	<0.0002	<0.01	
	06/20/11	200.7/200.8	<0.0025	0.038	<0.002	<0.006	<0.02	<0.005	0.0086	0.013	<0.005	0.057	<0.0002	<0.01	
	02/28/11	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.03	<0.05	<0.005	0.054	NA	<0.01	
	11/10/10	6010B	<0.02	0.062	<0.002	<0.006	<0.02	<0.005	0.04	<0.05	<0.005	0.052	<0.0002	<0.02	
09/21/10	6010B	<0.02	0.071	<0.002	<0.006	<0.02	<0.005	0.068	<0.05	<0.005	0.057	<0.0002	<0.02		



8.12.2 OW-1, OW-10  
Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)
	03/15/10	6010B	<0.02	0.046	<0.002	<0.006	<0.02	<0.005	0.013	<0.05	<0.005	0.0525	<0.0002	<0.02

NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table







8.12.3 OW-1, OW-10  
Dissolved Metals Analytical Result Summary

STANDARDS													
PARAMETERS													
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL	0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE	
NMED Tap Water (Rev 2. JUN 2019)	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96	
EPA RSL for Tap Water (NOV 2019)	0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6	
WELL ID	DATE SAMPLED	METHOD											
OW-1 (continued)	12/15/11	200.7/200.8											
	10/27/11	200.7/200.8											
	06/20/11	200.7/200.8											
	03/01/11	200.7/200.8											
	11/10/10	6010B											
	09/21/10	6010B											
	03/15/10	6010B											
OW-10	10/17/19	200.7/200.8											
	08/15/19	200.7/200.8											
	05/28/19	200.7/200.8											
	03/27/19	200.7/200.8											
	11/08/18	200.7/200.8											
	09/11/18	200.7/200.8											
	05/15/18	200.7/200.8											
	02/27/18	200.7/200.8											
	12/07/17	200.7/200.8											
	09/07/17	200.7/200.8											
	05/31/17	200.7/200.8											
	02/27/17	200.7/200.8											
	11/15/16	200.7/200.8											
	09/06/16	200.7/200.8											
	06/06/16	200.7/200.8											
	03/03/16	200.7/200.8											
	10/28/15	200.7/200.8											
	08/12/15	200.7/200.8											
	06/03/15	200.7/200.8											
	03/09/15	200.7/200.8											
	11/10/14	200.7/200.8											
	09/12/14	200.7/200.8											
	06/03/14	200.7/200.8											
	03/07/14	200.7/200.8											
	11/11/13	200.7/200.8											
	09/04/13	200.7/200.8											
06/13/13	200.7/200.8												
03/19/13	200.7/200.8												
11/27/12	200.7/200.8												







8.12.4 OW-1, OW-10  
Volatile Organic Compound Analytical Result Summary

STANDARDS		PARAMETERS							
WQCC 20MAC 6.2.103		Benzoic acid (mg/L)	1,2,4-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibromo ethane (EDB) <sup>1</sup> (mg/L)	Acetone (mg/L)	cis-1,2-DCE (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)
40 CFR 141.82 MCL		NE	NE	0.005	0.00005	NE	0.07	0.025	0.007
NMED Tap Water (Rev 2, JUN 2019)		NE	NE	0.005	0.0000747	14.06	0.075	NE	0.007
EPA RSL for Tap Water (NOV 2019)		75	0.056	0.0017	0.000075	NE	0.036	0.028	0.28
WELL ID	DATE SAMPLED	METHOD							
OW-1	10/16/19	8260B/801.1/504.1ED8							
	08/15/19	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	05/21/19	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	03/27/19	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	11/08/18	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	09/11/18	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	03/13/18	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	02/27/18	<0.001							
	12/27/17	<0.001							
	09/07/17	<0.001							
	05/31/17	<0.001							
OW-10	02/27/17	8260B/801.1/504.1ED8							
	10/17/19	NA							
	08/15/19	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	05/28/19	0.012							
	8260B/801.1/504.1ED8	<0.001							
	03/27/19	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	11/08/18	<0.001							
	05/15/18	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	02/27/18	<0.001							
	12/07/17	<0.001							
	09/07/17	<0.001							
	05/31/17	<0.001							
	02/27/17	<0.001							
OW-10	11/15/16	<0.001							
	8260B/801.1/504.1ED8	<0.001							
	09/06/16	<0.001							
	06/06/16	<0.001							
	03/03/16	<0.001							
	10/28/15	<0.001							
	08/12/15	<0.001							
	06/03/15	<0.001							
	03/09/15	<0.001							
	11/10/14	<0.001							
	09/12/14	<0.001							
	06/03/14	<0.001							
	03/07/14	<0.001							
	11/11/13	<0.001							
	09/04/13	<0.001							
	06/13/13	0.001							
	03/19/13	0.0013							
	11/27/12	0.0011							

**DEFINITIONS**  
NA = Not analyzed. NE = Not established  
Bold and highlighted values represent values above the applicable standards

**STANDARDS**  
WQCC 20MAC 6.2.103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.82 Detection Limits for Inorganic Contaminants  
EPA Regional Screening Level (RSL) Summary Table  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

**NOTES**  
1) New requirement per NMED directive "Approval with Modifications" dated May 18, 2016.



**8.13 OW-13, OW-14, OW-29, OW-30**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-13	10/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.077
	08/12/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.094
	05/01/19	8260B	0.00036	<0.001	<0.001	<0.0015	0.082
	02/05/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.084
	11/06/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.062
	09/11/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.075
	05/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.068
	02/28/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	12/11/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.056
	09/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.056
	05/31/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	02/27/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.053
	11/15/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.044
	08/31/16	8260B	0.00013	<0.001	<0.001	<0.0015	0.038
	06/06/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	03/04/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.035
	10/27/15	8260B	<0.001	0.0013	<0.001	0.0016	0.035
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	06/01/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.025
	03/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.026
	11/10/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.027
	09/15/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	06/03/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.02
	03/07/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	11/11/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.017
	09/04/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	06/13/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	03/19/13	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	06/14/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.0079
	03/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.0082
	12/13/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0065
	10/25/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0062
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.0048
	02/24/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.004
	11/08/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.0038
	09/22/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.0031
	06/07/10	8021B	<0.001	<0.001	<0.001	<0.0015	0.0027
	03/25/10	8021B	<0.001	<0.001	<0.001	<0.0015	0.0023



**8.13 OW-13, OW-14, OW-29, OW-30**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-14 <sup>1</sup>	05/01/19	8260B	16	<0.05	0.71	<0.075	0.73
	02/05/19	8260B	16	0.012	0.68	0.056	0.73
	11/09/18	8260B	13	<0.05	0.64	<0.05	0.6
	09/11/18	8260B	17	<0.05	0.66	0.042	0.74
	05/15/18	8260B	15	0.0088	0.71	<0.15	0.67
	02/27/18	8260B	14	0.0065	0.61	<0.15	0.66
	12/11/17	8260B	13	0.013	0.64	0.052	0.63
	09/06/17	8260B	12	0.0091	0.54	0.033	0.66
	05/30/17	8260B	13	0.004	0.47	0.02	0.7
	02/27/17	8260B	12	0.0062	0.39	<0.075	0.81
	11/15/16	8260B	8.7	0.0057	0.3	0.013	0.5
	08/31/16	8260B	8.1	0.0029	0.25	0.008	0.58
	06/06/16	8260B	7.8	0.0026	0.23	0.012	0.62
	03/04/16	8260B	6.5	<0.05	0.23	<0.075	0.68
	10/27/15	8260B	6.2	<0.02	0.15	<0.03	0.57
	08/10/15	8260B	5.4	<0.01	0.16	<0.015	0.78
	06/01/15	8260B	4.6	<0.02	0.16	<0.03	0.74
	03/09/15	8260B	3.9	<0.02	0.16	<0.03	0.76
	11/10/14	8260B	3.6	0.015	0.17	<0.015	0.81
	09/15/14	8260B	3.8	<0.02	0.16	<0.03	0.82
	06/03/14	8260B	3.7	<0.02	0.12	<0.03	0.93
	03/07/14	8260B	4	0.026	0.14	0.032	1.1
	11/11/13	8260B	3.3	0.046	0.13	0.019	1.1
	09/04/13	8260B	2.6	<0.005	0.063	<0.0075	0.94
	06/13/13	8260B	3.4	<0.01	0.073	<0.015	1.3
	03/19/13	8260B	2.8	<0.01	0.065	<0.015	1.3
	11/27/12	8260B	2.7	<0.01	0.056	<0.015	1.4
	08/23/12	8260B	2.1	<0.01	0.037	<0.015	1.6
	06/14/12	8260B	2.6	<0.01	0.053	<0.015	1.2
	03/21/12	8260B	2.3	<0.01	0.051	<0.015	1.4
	12/13/11	8260B	1.5	<0.005	0.036	<0.0075	1.3
	10/24/11	8260B	1.4	<0.005	0.045	<0.0075	1.4
	06/20/11	8260B	1.8	0.0015	0.061	<0.0015	1.6
	02/24/11	8260B	1.3	0.0019	0.042	<0.0015	1.4
	11/08/10	8260B	0.63	<0.001	0.018	<0.0015	1.3
	09/22/10	8260B	0.47	<0.001	0.0083	<0.0015	1.4
	06/07/10	8260B	0.33	0.0018	0.0085	<0.0015	1.4
	03/24/10	8260B	0.25	<0.005	0.01	<0.0075	1.5



**8.13 OW-13, OW-14, OW-29, OW-30**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-29	10/14/19	8260B	<0.005	<0.005	<0.005	<0.0075	3.1
	08/12/19	8260B	<0.005	<0.005	<0.005	<0.0075	3.8
	05/01/19	8260B	<0.005	<0.005	<0.005	<0.0075	3.7
	02/05/19	8260B	0.0011	<0.005	<0.005	<0.0075	4
	11/06/18	8260B	<0.005	<0.005	<0.005	<0.0075	3.2
	09/11/18	8260B	0.00096	<0.005	<0.005	<0.0075	3.9
	05/16/18	8260B	<0.002	<0.002	<0.002	<0.003	3.8
	02/27/18	8260B	<0.005	<0.005	<0.005	<0.0075	3.7
	12/11/17	8260B	<0.005	<0.005	<0.005	<0.0075	3.8
	09/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	3.8
	05/30/17	8260B	<0.01	<0.01	<0.01	<0.015	4
	02/27/17	8260B	<0.01	<0.01	<0.01	<0.015	4.3
	11/15/16	8260B	0.0079	<0.005	0.0011	<0.0075	3.4
	08/31/16	8260B	0.00054	<0.001	<0.001	<0.0015	3
	06/06/16	8260B	<0.005	<0.005	<0.005	<0.0075	3.1
	03/04/16	8260B	<0.005	<0.005	<0.005	<0.0075	3.2
	10/27/15	8260B	<0.005	<0.005	<0.005	<0.0075	3.1
	08/11/15	8260B	<0.005	<0.005	<0.005	<0.0075	3.1
	06/01/15	8260B	<0.005	<0.005	<0.005	<0.0075	2.6
	03/09/15	8260B	<0.001	<0.001	<0.001	<0.015	3.2
	11/11/14	8260B	<0.005	<0.005	<0.005	<0.015	3
	09/15/14	8260B	<0.005	<0.005	<0.005	<0.0075	2.5
	06/03/14	8260B	<0.001	<0.001	<0.001	<0.0015	2
	03/07/14	8260B	<0.001	<0.001	<0.001	<0.0015	2.1
	11/11/13	8260B	<0.002	<0.002	<0.002	<0.003	1.7
	09/04/13	8260B	<0.001	<0.001	<0.001	<0.0015	1.3
	06/13/13	8260B	<0.001	<0.001	<0.001	<0.0015	1.4
	03/19/13	8260B	<0.001	<0.001	<0.001	<0.0015	1.1
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.9
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	1
	06/14/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.47
	03/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	0.62
	12/13/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.49
	10/24/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.47
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.47
	02/24/11	8260B	<0.001	<0.001	<0.001	<0.0015	0.3
	11/09/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.22
	09/22/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.19
	06/07/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.15
	03/25/10	8260B	<0.001	<0.001	<0.001	<0.0015	0.12



**8.13 OW-13, OW-14, OW-29, OW-30**
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-30 <sup>1</sup>	06/05/19	8260B	<0.005	<0.005	<0.005	<0.0075	2.3
	03/27/19	8260B	<0.005	<0.005	<0.005	<0.0075	2.3
	12/03/18	8260B	<0.005	<0.005	<0.005	<0.0075	2.7
	09/19/18	8260B	<0.005	<0.005	<0.005	<0.0075	2.9
	05/16/18	8260B	<0.001	<0.001	<0.001	<0.0015	3.2
	02/28/18	8260B	0.0063	<0.005	<0.005	<0.0075	2.9
	12/12/17	8260B	0.012	<0.005	<0.005	<0.0075	3.1
	09/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	3.2
	05/31/17	8260B	<0.010	<0.010	<0.010	<0.015	3.3
	02/27/17	8260B	0.00097	<0.01	<0.01	<0.015	4
	11/14/16	8260B	<0.005	<0.005	<0.005	<0.0075	3.5
	08/31/16	8260B	<0.001	<0.001	<0.001	<0.0015	3
	06/06/16	8260B	0.0012	<0.005	<0.005	<0.0075	3.1
	03/08/16	8260B	0.0031	<0.002	<0.002	<0.003	3.5
	10/27/15	8260B	<0.005	<0.005	<0.005	<0.0075	3.5
	08/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	3.8
	06/02/15	8260B	<0.005	<0.005	<0.005	<0.0075	3.1
	03/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	4
	11/11/14	8260B	<0.005	<0.005	<0.005	<0.0015	3.6
	09/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	2.8
	06/03/14	8260B	<0.001	<0.001	<0.001	<0.0015	2.7
	03/07/14	8260B	<0.001	<0.001	<0.001	<0.0015	2.9
	11/11/13	8260B	<0.001	<0.001	<0.001	<0.0015	2.6
	09/04/13	8260B	<0.001	<0.001	<0.001	<0.0015	2.1
	06/17/13	8260B	<0.001	<0.001	<0.001	<0.0015	2.5
	03/19/13	8260B	<0.005	<0.005	<0.005	<0.0075	2
	11/27/12	8260B	<0.001	<0.001	<0.001	<0.0015	2.2
	08/23/12	8260B	<0.001	<0.001	<0.001	<0.0015	2.3
	06/14/12	8260B	<0.001	<0.001	<0.001	<0.0015	1.5
	03/21/12	8260B	<0.001	<0.001	<0.001	<0.0015	1.6
	12/15/11	8260B	<0.001	<0.001	<0.001	<0.0015	1.3
	10/24/11	8260B	<0.001	<0.001	<0.001	<0.0015	1.3
	06/20/11	8260B	<0.001	<0.001	<0.001	<0.0015	1.3
	02/24/11	8260B	<0.001	<0.001	<0.001	<0.0015	1.1
	11/08/10	8260B	<0.001	<0.001	<0.001	<0.0015	1.1
	09/27/10	8260B	<0.001	<0.001	<0.001	<0.0015	1.1
	06/04/10	8260B	<0.001	<0.001	<0.001	<0.0015	1
	03/24/10	8260B	<0.005	<0.005	<0.005	<0.0075	1.1



### 8.13 OW-13, OW-14, OW-29, OW-30

#### BTEX and MTBE Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1.0	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					

#### DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

#### NOTES

<sup>1</sup> OW-14 & OW-30 - Dedicated recovery system installed on wells - did not sample.



## 8.13.1 OW-13, OW-14, OW-29, OW-30

## DRO/GRO/MRO CATIONS/ANIONS Analytical Result Summary

STANDARDS			PARAMETERS						
			Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate + Nitrite as N (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	600	NE	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	NE	10	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	NE	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)			0.8	NE	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
OW-13	10/14/19	8015D					<1.0	0.059	<5.0
	08/12/19	8015D					<1.0	0.061	<5.0
	05/01/19	8015D					<1.0	0.048	<5.0
	02/05/19	8015D					<1.0	0.044	<5.0
	11/06/18	8015D					<1.0	<0.05	<5.0
	09/11/18	8015D					<1.0	0.046	<5.0
	05/15/18	8015D					<1.0	<0.05	<5.0
	02/28/18	8015D					<1.0	0.06	<5.0
	12/11/17	8015D					<1.0	0.064	<5.0
	09/06/17	8015D					<1.0	0.074	<5.0
	05/31/17	8015D					<1.0	0.059	<5.0
	02/27/17	8015D					<1.0	0.057	<5.0
	11/15/16	8015D					<1.0	<0.05	<5.0
	08/31/16	8015D					<1.0	0.068	<5.0
	06/06/16	8015D					<1.0	0.052	<5.0
	03/04/16	8015D					<1.0	0.045	<5.0
	10/27/15	8015D					<1.0	<0.05	<5.0
	08/10/15	8015D/300.0	0.27	30	150	4.9	<1.0	<0.05	<5.0
	09/15/14	8015D/300.0	0.22	28	150	<1.0	<1.0	<0.05	<5.0
	09/04/13	8015D/300.0	0.28	28	160	2.6	<1.0	<0.05	<5.0
OW-14 <sup>1</sup>	05/01/19	8015D					4.4	29	<5.0
	02/05/19	8015D					4.3	36	<5.0
	11/06/18	8015D					4.4	33	<5.0
	09/11/18	8015D					3.9	40	<5.0
	05/15/18	8015D					4.4	30	<5.0
	02/27/18	8015D					4	32	<5.0
	12/11/17	8015D					4.3	31	<5.0
	09/06/17	8015D					4.5	33	<5.0
	05/30/17	8015D					4.6	35	<5.0
	02/27/17	8015D					4.3	33	<5.0
	11/15/16	8015D					3.4	29	<5.0
	08/31/16	8015D					4.1	31	<5.0
	06/06/16	8015D					4.5	27	<5.0
	03/04/16	8015D					2.9	27	<5.0
	10/27/15	805D					4.1	16	<5.0
	08/10/15	8015D/300.0	<0.5	320	<2.5	<1.0	2.7	8.7	<5.0
	09/15/14	8015D/300.0	0.21	330	2.6	<1.0	4.5	8.2	<5.0
	09/04/13	8015D/300.0	0.21	350	3.2	5.9	7.8	7.6	<5.0



## 8.13.1 OW-13, OW-14, OW-29, OW-30

## DRO/GRO/MRO CATIONS/ANIONS Analytical Result Summary

STANDARDS			PARAMETERS						
			Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate + Nitrite as N (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			1.6	250.0	600	NE	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	NE	10	NE	NE	NE
NMED TAP WATER (JUNE 2019)			1.18	NE	NE	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)			0.8	NE	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)			NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
OW-29	10/14/19	8015D					<1.0	2.5	<5.0
	08/12/19	8015D					<1.0	3.1	<5.0
	05/01/19	8015D					<1.0	2.4	<5.0
	02/05/19	8015D					<1.0	2	<5.0
	11/06/18	8015D					<1.0	2.5	<5.0
	09/11/18	8015D					<1.0	3.5	<5.0
	05/16/18	8015D					<1.0	1.5	<5.0
	02/27/18	8015D					<1.0	3.5	<5.0
	12/11/17	8015D					<1.0	3.6	<5.0
	09/06/17	8015D					<1.0	3.8	<5.0
	05/30/17	8015D					0.51	3.8	<5.0
	02/27/17	8015D					<1.0	4.5	<5.0
	11/15/16	8015D					<1.0	6	<5.0
	08/31/16	8015D					<1.0	6.7	<5.0
	06/06/16	8015D					<1.0	4	<5.0
	03/04/16	8015D					<1.0	4.2	<5.0
	10/27/15	8015D					<1.0	2.6	<5.0
	08/11/15	8015D/300.0	0.31	170	70	<1.0	<1.0	2.4	<5.0
	09/15/14	8015D/300.0	0.3	160	73	<1.0	<1.0	0.52	<5.0
	09/04/13	8015D/300.0	0.43	160	84	3.9	<1.0	0.88	<5.0
OW-30 <sup>1</sup>	06/05/19	8015D					0.97	2.1	<5.0
	03/27/19	8015D					0.92	1.9	<5.0
	12/03/18	8015D					0.92	1.3	<5.0
	09/19/18	8015D					1.6	2.8	<5.0
	05/16/18	8015D					0.72	2.4	<5.0
	02/28/18	8015D					0.67	2.9	<5.0
	12/12/17	8015D					1.1	3.7	<5.0
	09/06/17	8015D					0.48	3.5	<5.0
	05/31/17	8015D					0.81	3.5	<5.0
	02/27/17	8015D					0.47	4.2	<5.0
	11/14/16	8015D					<1.0	5.2	<5.0
	08/31/16	8015D					<1.0	6.9	<5.0
	06/06/16	8015D					<1.0	4	<5.0
	03/08/16	8015D					<1.0	4.4	<5.0
	10/27/15	8015D					<1.0	3.7	<5.0
	08/10/15	8015D/300.0	0.23	180	42	<1.0	3.6	2.1	<5.0
	09/07/14	8015D/300.0	0.2	180	45	<1.0	<1.0	1.3	<5.0
	09/04/13	8015D/300.0	0.26	170	55	4.6	<1.0	1.4	<5.0

## DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

## STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

## NOTES

<sup>1</sup> OW-14 & OW-30 - Dedicated recovery system installed on wells - did not sample.















Total Metals Analytical Result Summary

PARAMETERS																
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10	
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE	
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96	
EPA RSL TAP WATER (NOVEMBER 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6	
WELL ID	DATE SAMPLED	METHOD														
OW-30 <sup>2</sup>	06/05/19	200.7/200.8	0.00083	0.13	<0.002	<0.006	0.0058	0.12	0.00052	0.075	<0.001	<0.005	<0.0001	0.035	<0.01	
	03/27/19	200.7/200.8	0.008	0.14	<0.002	<0.006	<0.006	0.17	0.00059	0.073	<0.001	<0.005	<0.0002	0.04	<0.01	
	12/03/18	200.7/200.8	0.0011	0.13	<0.002	<0.006	<0.006	0.1	0.0005	0.057	<0.001	0.0021	0.000082	NA	<0.01	
	09/19/18	200.7/200.8	0.0013	0.12	<0.002	<0.006	<0.006	0.067	0.00043	0.054	<0.001	0.0015	0.00008	0.034	<0.01	
	05/16/18	200.7/200.8	0.0012	0.11	<0.002	<0.006	0.0055	0.071	0.00043	0.053	0.0033	<0.005	0.000046	0.042	<0.01	
	02/28/18	200.7/200.8	0.0029	0.12	<0.002	<0.006	<0.006	0.071	<0.0025	0.042	<0.005	0.0024	<0.0002	0.04	<0.01	
	12/12/17	200.7/200.8	<0.01	0.11	<0.002	<0.006	<0.006	0.063	0.00042	0.036	<0.01	0.0013	0.000056	0.041	<0.01	
	09/06/17	200.7/200.8	0.0036	0.11	<0.002	<0.006	0.004	0.072	0.00036	0.045	0.0089	<0.005	<0.0002	0.043	<0.01	
	05/31/17	200.7/200.8	<0.005	0.11	<0.002	<0.006	<0.006	0.088	0.00031	0.047	<0.005	<0.005	<0.0002	NA	<0.01	
	02/27/17	200.7/200.8	0.0025	0.11	<0.002	<0.006	<0.006	0.098	0.00082	0.045	0.007	<0.005	<0.0002	NA	<0.01	
	11/14/16	200.7/200.8	0.0038	0.11	<0.002	<0.006	<0.006	0.095	0.00028	0.038	0.0061	<0.005	0.000088	0.046	<0.01	
	08/31/16	200.7/200.8	<0.01	0.096	<0.002	<0.006	<0.006	0.071	0.00025	0.035	0.0067	<0.005	NA	0.048	<0.01	
	06/06/16	200.7/200.8	0.0042	0.11	<0.002	<0.006	<0.006	0.11	0.0003	0.045	0.009	<0.005	0.000062	0.046	<0.01	
	03/08/16	200.7/200.8	<0.005	0.092	<0.002	<0.006	<0.006	0.052	<0.0025	0.034	0.0026	<0.005	<0.0002	0.047	<0.01	
	10/27/15	200.7/200.8	<0.005	0.097	<0.002	<0.006	<0.006	0.12	<0.0005	0.041	<0.005	<0.005	<0.0002	0.047	<0.01	
	08/10/15	200.7/200.8	<0.005	0.091	<0.005	<0.006	<0.006	0.073	<0.0005	0.037	<0.005	<0.005	<0.0002	0.048	<0.01	
	06/02/15	200.7/200.8	<0.01	0.088	<0.002	<0.006	<0.006	0.065	<0.005	0.036	<0.01	<0.005	<0.0002	0.05	<0.01	
	03/09/15	200.7/200.8	<0.01	0.09	<0.002	<0.006	<0.006	0.089	<0.001	0.037	<0.01	<0.005	<0.0003	0.056	<0.01	
	11/11/14	200.7/200.8	<0.005	0.093	<0.002	<0.006	<0.006	0.18	<0.001	0.036	<0.005	<0.005	<0.0002	0.05	<0.01	
	09/17/14	200.7/200.8	0.0015	0.087	<0.002	<0.006	<0.006	0.076	<0.001	0.031	0.0034	<0.005	<0.0002	0.051	<0.01	
	06/02/14	200.7/200.8	<0.005	0.56	<0.002	0.014	<0.006	<0.006	5.8	0.0064	0.35	0.0055	<0.005	0.048	0.015	
	03/07/14	200.7/200.8	0.0033	1.3	<0.002	0.031	0.0072	13	0.013	0.71	<0.005	<0.005	<0.0002	0.054	0.029	
	11/11/13	200.7/200.8	0.0018	0.11	<0.002	<0.006	<0.006	0.47	<0.001	0.047	0.0041	<0.005	<0.0002	0.053	<0.01	
	09/04/13	200.7/200.8	0.0012	0.081	<0.002	<0.006	<0.006	0.051	<0.001	0.025	0.0029	<0.005	<0.0002	0.055	<0.01	
	06/17/13	200.7/200.8	0.0013	0.079	<0.002	<0.006	<0.006	0.055	<0.005	0.026	0.0027	<0.005	<0.0002	0.054	<0.01	
	03/19/13 <sup>1</sup>	200.7/200.8	<0.0025	0.078	<0.002	<0.006	<0.006	0.052	<0.005	0.02	<0.0025	<0.005	<0.0002	0.057	<0.01	
	08/23/12	200.7/200.8	<0.0025	0.078	<0.002	<0.006	<0.006	0.058	<0.005	0.018	<0.0025	<0.005	<0.0002	0.056	<0.01	



8.13.2 OW-13, OW-14, OW-29, OW-30

Total Metals Analytical Result Summary

STANDARDS		PARAMETERS													
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE	
40 CFR 141.62 MCL															
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96	
EPA RSL TAP WATER (NOVEMBER 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6	
WELL ID	DATE SAMPLED	METHOD													

**DEFINITIONS**  
NA = Not analyzed; NE = Not established  
Bold and highlighted values represent values above the applicable standards

**STANDARDS**  
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
a) Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1  
EPA Regional Screening Level (RSL) Summary Table

- NOTES**
- 1) Addition of WQCC Metals per NMED's Comment 12 from "Approval with Modifications Annual Ground Water Monitoring Report, Rev 1, dated 12/12/12", to monitor upgradient wells.
  - 2) OW-14 & OW-30 - Dedicated recovery system installed on wells - did not sample.



8.13.3 OW-13, OW-14, OW-29, OW-30  
Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL TAP WATER (NOVEMBER 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
WELL ID	DATE SAMPLED	METHOD												
OW-13	10/14/19	200.7/200.8	0.00079	0.019	<0.002	<0.006	0.0015	<0.02	<0.0005	0.019	<0.001	<0.005	NA	0.0087
	08/12/19	200.7/200.8	0.00079	0.018	<0.002	<0.006	<0.006	<0.02	<0.0005	0.017	<0.00	<0.005	0.015	0.0068
	05/01/19	200.7/200.8	0.00069	0.019	<0.002	<0.006	0.0017	<0.02	<0.0005	0.02	<0.001	<0.005	0.016	0.12
	02/05/19	200.7/200.8	0.00069	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	<0.001	<0.005	0.015	0.018
	11/06/18	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.0005	0.023	<0.001	<0.005	0.016	0.018
	09/11/18	200.7/200.8	0.00078	0.019	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	<0.001	<0.005	0.015	0.007
	05/15/18	200.7/200.8	0.0008	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.02	<0.001	<0.005	0.016	0.006
	02/28/18	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	<0.005	<0.005	0.014	0.0074
	12/11/17	200.7/200.8	<0.005	0.019	<0.002	<0.006	<0.006	<0.02	<0.0005	0.023	<0.005	<0.005	0.015	0.0095
	09/06/17	200.7/200.8	0.0012	0.019	<0.002	0.0057	<0.006	<0.023	<0.0005	0.02	0.0023	<0.005	0.017	0.046
	05/31/17	200.7/200.8	0.00099	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.019	<0.005	<0.005	NA	0.014
	02/27/17	200.7/200.8	0.0011	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	0.0036	<0.005	NA	0.029
	11/15/16	200.7/200.8	0.0013	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.021	0.0026	<0.005	0.017	<0.01
	08/31/16	200.7/200.8	0.0015	0.02	<0.002	<0.006	<0.006	<0.02	<0.0025	0.021	0.002	<0.005	0.017	0.042
	06/06/16	200.7/200.8	0.0019	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	0.0035	<0.005	0.018	0.014
	03/04/16	200.7/200.8	0.0012	0.018	<0.002	<0.006	0.0053	<0.02	<0.0005	0.019	0.0011	<0.005	0.017	0.0093
	10/27/15	200.7/200.8	<0.005	0.021	<0.002	<0.006	<0.006	<0.02	<0.0005	0.023	<0.005	<0.005	0.016	<0.01
	08/11/15	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	<0.02	<0.0025	0.018	<0.005	<0.005	0.017	<0.01
	06/01/15	200.7/200.8	<0.01	0.02	<0.002	<0.006	<0.006	<0.02	<.1	0.021	<0.01	<0.005	0.016	<0.01
	03/09/15	200.7/200.8	<0.005	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.022	<0.005	<0.005	0.017	<0.01
	11/10/14	200.7/200.8	0.0011	0.019	<0.002	<0.006	<0.006	<0.02	<0.01	0.022	<0.001	<0.005	0.016	0.063
	09/15/14	200.7/200.8	0.0015	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.018	0.0026	<0.005	0.017	<0.01
	06/03/14	200.7/200.8	0.0012	0.017	<0.002	<0.006	<0.006	<0.02	<0.005	0.017	0.0022	<0.005	0.015	<0.01
	03/07/14	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.02	<0.001	<0.005	0.018	0.017
	11/11/13	200.7/200.8	0.0012	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	0.002	<0.005	0.016	0.014
	09/04/13	200.7/200.8	<0.005	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	0.024	<0.005	<0.005	0.017	<0.01
	06/13/13	200.7/200.8	0.0011	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	0.0024	<0.005	0.017	0.048
	03/19/13 <sup>1</sup>	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.019	<0.001	<0.005	0.017	<0.01
	08/23/12	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.005	0.011	<0.001	<0.005	0.016	0.016



8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

PARAMETERS																		
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)				
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10				
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE				
NMED TAP WATER (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96				
EPA RSL TAP WATER (NOVEMBER 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6				
WELL ID	DATE SAMPLED	METHOD																
OW-14 <sup>2</sup>	05/01/19	200.7/200.8	0.0049	2.2	<0.002	<0.006	<0.006	<0.006	4.7	0.000057	2	0.00018	<0.005	0.0026	0.095			
	02/05/19	200.7/200.8	0.0052	2.2	<0.002	<0.006	<0.006	<0.006	4.6	0.000055	2	<0.001	<0.005	0.0028	0.02			
	11/06/18	200.7/200.8	0.0047	2.2	<0.002	<0.006	<0.006	<0.006	4.4	<0.0005	2.1	0.011	<0.005	0.0029	<0.01			
	09/11/18	200.7/200.8	0.0056	2.3	<0.002	<0.006	<0.006	<0.006	4.7	<0.0005	2.2	<0.001	<0.005	0.0029	0.0099			
	05/15/18	200.7/200.8	0.006	2.2	<0.002	<0.006	<0.006	<0.006	4.4	<0.0005	2	<0.001	<0.005	0.0033	0.0054			
	02/27/18	200.7/200.8	0.0064	2.1	<0.002	<0.006	<0.006	<0.006	4.4	<0.0005	1.9	<0.01	<0.005	0.0034	0.0074			
	12/11/17	200.7/200.8	0.0083	2.1	<0.002	<0.006	<0.006	<0.006	4.4	<0.0005	2.1	0.011	<0.005	0.0033	0.0085			
	09/06/17	200.7/200.8	0.009	2.2	<0.002	<0.006	<0.006	<0.006	4.6	<0.0005	2.1	0.013	<0.005	0.0042	0.029			
	05/30/17	200.7/200.8	0.0076	2.2	<0.002	<0.006	<0.006	<0.006	4.5	<0.0005	2.1	0.0069	<0.005	NA	0.026			
	02/27/17	200.7/200.8	0.0083	2.3	<0.002	<0.006	<0.006	<0.006	5.1	<0.0005	2.2	0.013	<0.005	NA	0.015			
	11/15/16	200.7/200.8	0.0099	2.2	<0.002	<0.006	<0.006	<0.006	4.7	<0.0005	2.1	0.015	<0.005	0.0048	<0.01			
	08/31/16	200.7/200.8	0.0086	2.2	<0.002	<0.006	<0.006	<0.006	4.9	<0.0005	2.2	0.012	<0.005	0.0054	0.028			
	06/06/16	200.7/200.8	0.012	2.2	<0.002	<0.006	<0.006	<0.006	4.9	<0.0005	2.3	0.022	<0.005	0.0068	<0.01			
	03/04/16	200.7/200.8	0.0082	1.9	<0.002	<0.006	<0.006	<0.006	4.3	0.00012	2.1	0.0048	<0.005	0.0065	0.01			
	10/27/15	200.7/200.8	0.011	2.1	<0.002	<0.006	<0.006	<0.006	4.7	<0.0005	2.3	0.016	<0.005	0.0065	<0.01			
	08/10/15	200.7/200.8	0.0091	1.9	<0.002	0.0063	0.0063	<0.006	4.5	<0.0025	2	<0.01	<0.005	0.006	<0.01			
	06/01/15	200.7/200.8	<0.01	1.9	<0.002	<0.006	<0.006	<0.006	5	<0.01	2.3	<0.01	<0.005	<0.01	0.12			
	03/09/15	200.7/200.8	<0.02	1.9	<0.002	<0.006	<0.006	<0.006	4.7	<0.001	2.2	<0.02	<0.005	0.0067	<0.01			
	11/10/14	200.7/200.8	<0.01	1.8	<0.002	<0.006	<0.006	<0.006	4.5	<0.01	2.2	<0.01	<0.005	<0.01	0.036			
	09/15/14	200.7/200.8	0.013	1.8	<0.002	<0.006	<0.006	<0.006	4.5	<0.001	2.2	0.017	<0.005	0.0071	<0.01			
	06/03/14	200.7/200.8	0.011	1.7	<0.002	<0.006	<0.006	<0.006	4.6	<0.005	2.3	0.018	<0.005	0.0083	0.017			
	03/07/14	200.7/200.8	0.0084	1.6	<0.002	<0.006	<0.006	<0.006	4.2	<0.001	2.1	<0.005	<0.005	0.0097	<0.01			
	11/11/13	200.7/200.8	0.012	1.6	<0.002	<0.006	<0.006	<0.006	4.6	<0.001	2.3	0.015	<0.005	0.0093	0.021			
	09/04/13	200.7/200.8	0.01	1.5	<0.002	<0.006	<0.006	<0.006	4.5	<0.001	2.1	0.011	<0.025	0.0093	<0.01			
	06/13/13	200.7/200.8	0.012	1.4	<0.002	<0.006	<0.006	<0.006	4.6	<0.001	2.3	0.017	<0.005	0.011	<0.01			
	03/19/13 <sup>1</sup>	200.7/200.8	0.0093	1.3	<0.002	<0.006	<0.006	<0.006	4.1	<0.005	2.1	0.0045	<0.005	0.0087	<0.01			
	08/23/12	200.7/200.8	0.01	1.1	<0.002	<0.006	<0.006	<0.006	4.4	<0.005	2.3	0.0067	<0.005	0.0091	0.039			



8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

PARAMETERS															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10	
	40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE	
	NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.987	0.0812	0.0592	5.96	
	EPA RSL TAP WATER (NOVEMBER 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6	
	WELL ID		DATE SAMPLED		METHOD										
	OW-29	10/14/19	200.7/200.8	0.00062	0.074	<0.002	<0.006	0.0026	0.2	<0.0005	0.33	<0.001	0.0018	NA	0.078
		08/12/19	200.7/200.8	0.00069	0.071	<0.002	<0.006	<0.006	0.18	<0.005	0.29	<0.001	0.00097	0.053	0.0036
		05/01/19	200.7/200.8	0.00061	0.072	<0.002	<0.006	<0.006	0.27	<0.0005	0.33	<0.001	<0.005	0.051	0.064
		02/05/19	200.7/200.8	0.00065	0.072	<0.002	<0.006	<0.006	0.22	<0.0005	0.31	<0.0002	0.001	0.048	0.02
		11/06/18	200.7/200.8	<0.001	0.071	<0.002	<0.006	<0.006	0.24	<0.0005	0.3	<0.001	<0.005	0.052	<0.01
		09/11/18	200.7/200.8	0.00086	0.073	<0.002	<0.006	<0.006	0.26	<0.0005	0.33	<0.001	<0.005	0.048	0.0062
		05/16/18	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.006	0.21	<0.0025	0.28	0.004	<0.005	0.047	0.011
		02/27/18	200.7/200.8	<0.005	0.067	<0.002	<0.006	<0.006	0.25	<0.0005	0.31	<0.005	<0.005	0.048	0.0071
		12/11/17	200.7/200.8	0.0028	0.019	<0.002	<0.006	<0.006	<0.02	<0.0025	0.022	0.006	<0.005	0.048	0.0099
		09/06/17	200.7/200.8	0.0026	0.067	<0.002	<0.006	<0.006	0.26	<0.0005	0.29	<0.02	<0.005	0.052	0.023
		05/30/17	200.7/200.8	0.0018	0.069	<0.002	<0.006	<0.006	0.28	<0.0005	0.31	0.0038	<0.005	NA	0.024
		02/27/17	200.7/200.8	0.002	0.07	<0.002	<0.006	<0.006	0.31	<0.0005	0.32	0.0064	<0.005	NA	0.028
		11/15/16	200.7/200.8	0.0027	0.07	<0.002	<0.006	<0.006	0.32	<0.0005	0.34	0.0076	<0.005	0.053	<0.01
		08/31/16	200.7/200.8	0.0026	0.068	<0.002	<0.006	<0.006	0.27	<0.0025	0.3	0.0065	<0.005	0.054	0.028
		06/06/16	200.7/200.8	0.0032	0.07	<0.002	<0.006	<0.006	0.31	<0.0005	0.33	0.008	<0.005	0.054	<0.01
		03/04/16	200.7/200.8	0.0015	0.063	<0.002	<0.006	<0.006	0.34	<0.0005	0.31	0.0031	<0.005	0.049	0.015
		10/27/15	200.7/200.8	<0.005	0.069	<0.002	<0.006	<0.006	0.27	<0.0005	0.32	<0.01	<0.005	0.054	<0.01
		08/11/15	200.7/200.8	<0.005	0.059	<0.002	<0.006	<0.006	0.24	<0.0025	0.27	<0.005	<0.005	0.053	0.012
		06/01/15	200.7/200.8	<0.01	0.064	<0.002	<0.006	<0.006	0.34	<0.01	0.29	<0.01	<0.005	0.053	<0.01
		03/09/15	200.7/200.8	<0.001	0.063	<0.002	<0.006	<0.006	0.31	<0.001	0.31	<0.01	<0.005	0.053	<0.01
		11/11/14	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.23	<0.01	0.28	<0.01	<0.005	0.054	0.029
		09/15/14	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.18	<0.001	0.26	<0.01	<0.005	0.054	<0.01
		06/02/14	200.7/200.8	<0.005	0.057	<0.002	<0.006	<0.006	0.2	<0.005	0.28	0.0064	<0.005	0.054	<0.01
		03/07/14	200.7/200.8	<0.005	0.059	<0.002	<0.006	<0.006	0.28	<0.001	0.29	<0.005	<0.005	0.053	<0.01
11/11/13		200.7/200.8	0.0019	0.063	<0.002	<0.006	<0.006	0.33	<0.001	0.3	0.0052	<0.005	0.053	0.028	
09/04/13		200.7/200.8	<0.005	0.062	<0.002	<0.006	<0.006	0.31	<0.005	0.28	<0.005	<0.005	0.06	<0.01	
06/13/13		200.7/200.8	0.0018	0.06	<0.002	<0.006	<0.006	0.45	<0.001	0.31	0.0055	<0.005	0.055	0.017	
03/19/13 <sup>1</sup>		200.7/200.8	0.001	0.054	<0.002	<0.006	<0.006	0.34	<0.005	0.27	0.0011	<0.005	0.054	<0.01	
08/23/12		200.7/200.8	0.001	0.056	<0.002	<0.006	<0.006	0.046	<0.005	0.24	0.0019	<0.005	0.053	<0.01	



8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL TAP WATER (NOVEMBER 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
WELL ID	DATE SAMPLED	METHOD											
OW-30 <sup>2</sup>	06/05/19	0.00062	0.12	<0.002	<0.006	0.0056	0.057	0.00055	0.067	<0.001	<0.005	0.035	0.013
	03/27/19	0.00069	0.13	<0.002	<0.006	<0.006	0.055	0.00041	0.068	<0.001	0.0014	0.036	0.034
	12/03/18	0.00084	0.12	<0.002	<0.006	0.0041	0.061	0.00042	0.053	<0.001	<0.005	NA	0.034
	09/19/18	0.001	0.12	<0.002	<0.006	0.0067	0.06	0.00044	0.051	<0.001	<0.005	0.041	0.0065
	05/16/18	0.0046	0.11	<0.002	<0.006	0.0064	0.061	<0.0025	0.052	<0.01	<0.005	0.037	0.0064
	02/28/18	<0.005	0.12	<0.002	<0.006	<0.006	0.064	0.0003	0.04	<0.005	<0.005	0.035	0.0066
	12/12/17	0.005	0.11	<0.002	<0.006	0.0037	0.058	<0.0025	0.035	<0.02	<0.005	0.04	0.0083
	09/06/17	0.003	0.11	<0.002	<0.006	<0.006	0.067	0.00035	0.044	<0.02	<0.005	0.042	0.023
	05/31/17	0.0019	0.11	<0.002	<0.006	<0.006	0.068	0.00029	0.045	0.0041	<0.005	NA	0.023
	02/27/17	0.0018	0.11	<0.002	<0.006	<0.006	0.061	0.0003	0.044	0.0072	<0.005	NA	0.023
	11/14/16	0.0032	0.1	<0.002	<0.006	<0.006	0.087	0.00028	0.041	0.0094	<0.005	0.044	<0.01
	08/31/16	0.0031	0.1	<0.002	<0.006	<0.006	0.071	0.00019	0.038	0.0075	<0.005	0.046	0.044
	06/06/16	0.0036	0.1	<0.002	<0.006	<0.006	0.062	0.0002	0.043	0.0095	<0.005	0.047	<0.01
	03/08/16	0.0019	0.091	<0.002	<0.006	<0.006	0.061	0.00022	0.037	0.0043	<0.005	0.049	<0.01
	10/27/15	<0.005	0.1	<0.002	<0.006	0.0088	0.064	<0.01	0.041	0.0077	<0.005	0.045	<0.01
	08/10/15	<0.005	0.088	<0.002	<0.006	<0.006	0.071	<0.0025	0.037	<0.005	<0.005	0.048	0.011
	06/02/15	<0.01	0.082	<0.002	<0.006	<0.006	0.067	<0.01	0.031	<0.01	<0.005	0.049	0.017
	03/09/15	<0.01	0.09	<0.002	<0.006	<0.006	0.064	<0.001	0.037	<0.01	<0.005	0.048	0.015
	11/11/14	<0.01	0.086	<0.002	<0.006	<0.006	0.051	<0.01	0.034	<0.01	<0.005	0.05	0.029
	09/17/14	<0.005	0.086	<0.002	<0.006	<0.006	0.067	<0.005	0.033	<0.005	<0.005	0.049	0.012
	06/02/14	<0.005	0.17	<0.002	<0.006	<0.006	2.3	<0.005	0.082	<0.01	<0.005	0.051	<0.01
	03/07/14	<0.005	0.29	<0.002	0.014	<0.006		0.0023	0.18	<0.005	<0.005	0.05	0.012
	11/11/13	0.0017	0.084	<0.002	<0.006	<0.006	0.06	<0.001	0.031	0.0046	<0.005	0.05	0.022
	09/04/13	<0.005	0.08	<0.002	<0.006	<0.006	0.04	<0.005	0.028	<0.005	<0.005	0.059	<0.01
	06/17/13	0.0019	0.078	<0.002	<0.006	<0.006	0.048	<0.005	0.025	0.0055	<0.005	0.054	0.01
	03/19/13 <sup>1</sup>	0.0011	0.073	<0.002	<0.006	<0.006	0.051	<0.005	0.023	0.0023	<0.005	0.054	<0.01
	08/23/12	0.001	0.074	<0.002	<0.006	<0.006	<0.02	<0.005	0.015	0.0017	<0.005	0.052	0.036











8.13.4 OW-13, OW-14, OW-29, OW-30

Volatile Organic Compounds Analytical Result Summary

PARAMETERS																	
STANDARDS		1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) <sup>1</sup> (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	2- Butanone (mg/L)	Chloro ethane (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	0.025	NE	0.005	NE	NE	NE	
40 CFR 141.61 MCL		NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	NE	
NMED TAP WATER (JUNE 2019)		NE	NE	0.0017	0.0000747	0.00165	0.0114	14.06	5.56	20.86	0.0275	0.447	0.1180	NE	NE	NE	
EPA RSL TAP WATER (NOVEMBER 2019)		0.056	0.06	0.0017	0.0000075	0.00017	0.0011	14	5.6	20.9	0.0028	0.45	0.011	1	0.66	2	
WELL ID	DATE SAMPLED	METHOD															
OW-13 (continued)	11/08/10	8260B															
	09/22/10	8260B															
	06/07/10	8260B															
	03/25/10	8260B															
OW-14 <sup>2</sup>	05/01/19	8260B/8011(504.1EDB)	<0.05	<0.05	<0.0000095	0.024	0.032	<0.5		<0.1	<0.05	0.014	<0.15	<0.001	<0.001	<0.001	
	02/05/19	8260B/8011(504.1EDB)	<0.05	<0.05	<0.0000094	0.027	0.028	<0.5		<0.1	<0.05	0.018	<0.15	<0.001	<0.001	<0.001	
	11/06/18	8260B/8011(504.1EDB)	<0.05	<0.05	<0.0000095	<0.1	<0.2	<0.5		<0.1	<0.05	<0.05	<0.03	<0.15	<0.05	<0.05	
	09/11/18	8260B/8011/504.1EDB	<0.05	<0.05	<0.0000094	0.027	0.026	<0.5		<0.1	<0.05	0.017	<0.15	<0.05	0.03	<0.05	
	05/15/18	8260B/8011/504.1EDB	<0.1	<0.1	<0.0000094	0.017	<4.0	<1.0		<0.2	<0.1	0.014	<0.3	<0.3	0.027	<0.1	
	02/27/18	8260B/8011/504.1EDB	<0.1	<0.1	<0.0000094	0.044	0.059	<1.0		<0.2	<0.1	0.012	<0.3	<0.3	0.032	<0.1	
	12/11/17	8260B/8011(504.1EDB)	0.013	0.0021	<0.01	0.037	0.033	<0.1		<0.03	<0.01	0.016	<0.03	0.003	0.028	0.0032	
	09/06/17	8260B	0.012	0.0016	<0.005	0.038	0.038	0.013		<0.015	<0.005	0.014	<0.015	0.0021	0.025	0.0027	
	05/30/17	8260B	0.011	<0.05	<0.05	0.028	0.037	<0.5		<0.15	<0.05	0.014	0.0073	<0.15	0.021	<0.05	
	02/27/17	8260B	0.0074	<0.05	<0.05	0.024	0.035	<0.5		<0.15	<0.05	0.0083	<0.15	<0.15	0.014	<0.05	
	11/15/16	8260B/8011(504.1EDB)	0.0084	0.0015	0.0034	0.02	0.03	0.03			<0.01	0.01	<0.03	0.0034	0.013	0.0041	
	09/01/16	8260B	0.0071	0.00082	<0.005	0.018	0.034	0.034			<0.005	0.0085	<0.015	<0.015	0.011	0.0022	
	06/06/16	8260B	0.008	0.0017	<0.01	0.019	0.033	0.033			0.0033	0.0096	<0.003	<0.003	0.011	0.0031	
	03/04/16	8260B	<0.05		<0.05	0.017	0.03	0.03			0.011	<0.05	<0.05	0.011	<0.05	<0.05	<0.05
	10/27/15	8260B	<0.02		<0.02	<0.04	<0.08	<0.08			<0.02	<0.02	<0.02	0.011	<0.02	<0.02	<0.02
	08/10/15	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	06/01/15	8260B	<0.02		<0.02	<0.04	<0.08	<0.08			<0.02	<0.02	<0.02	<0.06	<0.02	<0.02	<0.02
	03/09/15	8260B	<0.02		<0.02	<0.04	<0.08	<0.08			<0.02	<0.02	<0.02	<0.06	<0.02	<0.02	<0.02
	11/10/14	8260B	<0.01		<0.01	<0.02	<0.04	0.044			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	09/15/14	8260B/8270C	<0.02		<0.02	<0.04	0.016	0.016			<0.02	<0.02	<0.02	<0.06	<0.02	<0.02	<0.02
	06/03/14	8260B	<0.02		<0.02	<0.04	<0.08	<0.08			<0.08	<0.08	<0.02	<0.06	<0.02	<0.02	<0.02
	03/07/14	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.04	<0.04	<0.01	<0.03	<0.01	<0.01	<0.01
	11/11/13	8260B	<0.005		<0.005	<0.01	0.027	0.027			<0.01	<0.005	0.0066	<0.015	<0.005	<0.005	<0.005
	09/04/13	8260B	<0.005		<0.005	<0.01	0.024	0.024			<0.005	<0.005	0.006	<0.015	<0.005	<0.005	<0.005
	06/13/13	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	03/19/13	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	11/27/12	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	08/23/12	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	06/14/12	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	03/21/12	8260B	<0.01		<0.01	<0.02	<0.04	<0.04			<0.01	<0.01	<0.01	<0.03	<0.01	<0.01	<0.01
	12/13/11	8260B	<0.005		<0.005	<0.01	0.021	0.021			<0.005	<0.005	0.0071	<0.005	<0.005	<0.005	<0.005
10/24/11	8260B	<0.005		<0.005	<0.01	0.022	0.022			<0.005	<0.005	0.0082	<0.005	<0.005	<0.005	<0.005	











8.13.4 OW-13, OW-14, OW-14, OW-29, OW-30

Volatile Organic Compounds Analytical Result Summary

PARAMETERS													
STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) <sup>1</sup> (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Chloro ethane (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)
40 CFR 141.61 MCL		NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	0.025	NE	0.005
NMED TAP WATER (JUNE 2019)		NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	NE	NE	0.005
EPA RSL TAP WATER (NOVEMBER 2019)		NE	NE	0.0017	0.0000747	0.00165	0.0114	14.06	5.56	20.86	0.0275	0.447	0.1180
EPA RSL TAP WATER (NOVEMBER 2019)		0.056	0.06	0.0017	0.0000075	0.00017	0.0011	14	5.6	20.9	0.0028	0.45	0.011
WELL ID		DATE SAMPLED	METHOD										
OW-30 <sup>2</sup> (continued)		11/27/12	8260B										
		08/23/12	8260B										
		06/14/12	8260B										
		03/21/12	8260B										
		12/15/11	8260B										
		10/24/11	8260B										
		06/20/11	8260B										
		02/24/11	8260B										
		11/08/10	8260B										
		09/27/10	8260B										
		06/04/10	8260B										
		03/24/10	8260B										
			<0.001	<0.001	<0.001	<0.002	<0.004				<0.001	<0.001	<0.003
			<0.001	<0.001	<0.001	<0.002	<0.004				<0.001	<0.001	<0.003
			<0.001	<0.001	<0.001	<0.002	<0.004				<0.001	<0.001	<0.001

DEFINITIONS

NA = Not analyzed; NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) New requirement per directive from NMED "Approval with Modifications", dated May 18, 2016.

2) OW-14 & OW-30 - Dedicated recovery system installed on wells - did not sample.



**8.14 STP1-NW, OW-59, OW-60, OW-62**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
STP1-NW	10/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/08/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/19/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/06/18	8260B	<0.001	<0.001	<0.001	0.00054	<0.001
	04/30/18	8260B	<0.001	0.00032	<0.001	0.00054	<0.001
	02/09/18	8260B	0.00052	0.0021	0.00049	0.0024	<0.001
	12/04/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00057
	06/02/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00043
	02/21/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00063
	11/14/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00036
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0003
	06/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0006
	03/02/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.47
	10/29/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/02/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/18/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/16/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-59	10/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	08/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	05/02/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	02/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	11/07/18	8260B	<0.002	<0.002	<0.002	<0.003	0.0077
	08/28/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	05/08/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	02/22/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	12/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0094



**8.14 STP1-NW, OW-59, OW-60, OW-62**  
**BTEX and MTBE Analytical Result Summary**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED TAP WATER (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL TAP WATER (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
OW-60	10/15/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00075
	08/21/19	8260B	0.00029	<0.001	<0.001	<0.0015	0.00074
	05/02/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00058
	02/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00046
	11/07/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00071
	08/28/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00054
	05/08/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00042
	02/22/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00046
	12/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00028
OW-62	11/29/18	8260B	<b>0.92</b>	0.013	0.0019	0.009	<0.005
	08/22/18	8260B	<b>2.7</b>	0.0095	<0.005	0.038	<0.005
	04/29/18	8260B	<b>3.9</b>	0.039	0.0062	0.12	0.0012

**DEFINITIONS**

NA = Not analyzed; NE = Not established.

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.14.1 STP1-NW, OW-59, OW-60, OW-62  
General Chemistry and DRO/GRO/MRO Analytical Result Summary

PARAMETERS									
		Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
STANDARDS									
WQCC 20 NMAC 6.2.3103 (DEC 2018)		1.6	250.0	1	10	600.0	NE	NE	NE
40 CFR 141.62 MCL		4.0	NE	1	10	NE	NE	NE	NE
NMED TAP WATER (JUNE 2019)		1.18	NE	1.97	31.60	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)		0.8	NE	2	32	NE	NE	NE	NE
NMED SSG (JUNE 2019)		NE	NE	NE	NE	NE	0.0167	0.0101	0.0858
WELL ID	DATE SAMPLED	METHOD							
STP1-NW	10/22/19	300.0/8015D							
	08/21/19	300.0/8015D							
	05/08/19	300.0/8015D							
	02/13/19	300.0/8015D							
	11/19/18	300.0/8015D							
	09/06/18	300.0/8015D							
	04/30/18	300.0/8015D							
	02/09/18	300.0/8015D							
	12/04/17	300.0/8015D							
	09/05/17	300.0/8015D							
	06/02/17	300.0/8015D							
	02/21/17	300.0/8015D							
	11/14/16	300.0/8015D							
	09/09/16	300.0/8015D							
	06/07/16	300.0/8015D							
	03/02/16	300.0/8015D							
	10/29/15	300.0/8015D							
	08/11/15	300.0/8015D							
	06/02/15	300.0/8015D							
	03/10/15	300.0/8015D							
	11/18/14	300.0/8015D							
	09/17/14	300.0/8015D							
	06/16/14	300.0/8015D							
OW-59	10/15/19	300.0/8015D							
	08/21/19	300.0/8015D							
	05/02/19	300.0/8015D							
	02/13/19	300.0/8015D							
	11/07/18	300.0/8015D							
	08/28/18	300.0/8015D							
	05/08/18	300.0/8015D							
	02/22/18	300.0/8015D							
	12/06/17	300.0/8015D							
		<0.5	2300	<2.0	27	170	<0.4	<0.05	<2.5
		<0.5	2500	<2.0	29	200	<1.0	<0.05	<5.0
		<0.5	2300	<2.0	27	190	<1.0	<0.05	<5.0
		<0.5	2300	<2.0	27	180	<1.0	<0.05	<5.0
		<0.5	2100	<2.0	26	160	<1.0	<0.05	<5.0
		0.47	1900	23	23	170	0.99	<0.05	<5.0
		<0.5	2100	24	24	150	<1.0	<0.05	<5.0
		<0.5	2100	25	25	150	<1.0	0.81	<5.0
		<0.5	2200	26	26	150	<1.0	0.025	<5.0
		<0.5	2300	25	25	160	<1.0	<0.05	<5.0
		<0.1	2100	24	24	140	<1.0	<0.05	<5.0
		<0.5	2000	24	24	140	<1.0	<0.05	<5.0
		<0.5	2000	<2.0	24	140	<1.0	<0.05	<5.0
		<0.5	1800	26	26	150	<1.0	<0.05	<5.0
		0.058	2400	20	20	150	<1.0	<0.05	<5.0
		NA	NA	NA	NA	NA	<1.0	<0.05	<5.0
		0.26	2100	21	21	130	<1.0	<0.05	<5.0
		NA	NA	NA	NA	NA	<1.0	<0.05	<5.0
		<0.5	2100	25	25	130	<1.0	<0.05	<5.0
		<0.1	2400	22	22	150	<1.0	<0.05	<5.0
		0.29	1800	<2.0	18	120	<1.0	<0.05	<5.0
		0.26	1800	<2.0	18	120	<1.0	<0.05	<5.0
		0.85	1000	15	15	160	<1.0	<0.05	<5.0
		<0.5	2000	<2.0	<2.0	2400	0.58	2.3	<5.0
		<0.5	2100	<2.0	<0.5	2500	0.38	0.35	<5.0
		<0.5	2100	<2.0	<2.0	2700	0.61	2.2	<5.0
		<0.5	2000	<2.0	<.5	2600	0.44	0.43	<5.0
		<0.5	2100	<2.0	<0.5	2700	<1.0	0.23	<5.0
		<0.5	2100	<2.0	<2.0	2600	<1.0	0.064	<5.0
		<0.5	1800	<2.0	<0.5	2400	<1.0	2.8	<5.0
		<0.5	1900	<2.0	<0.5	2700	<1.0	0.13	<5.0
		<0.5	1700	<2.0	<2.0	2600	0.55	3.1	<5.0
		<0.5	1700	<2.0	<2.0	2600	0.55	3.1	<5.0







8.14.2 STP1-NW, OW-59, OW-60, OW-62  
Total Metals Analytical Result Summary

PARAMETERS																
STANDARDS																
WQCC 20 NMAC 6.2.3103 (DEC 2018)																
40 CFR 141.62 MCL																
NMED TAP WATER (JUNE 2019)																
EPA RSL TAP WATER (NOVEMBER 2019)																
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STP1-NW	10/22/19	200.7/200.8	0.0033	0.13	<0.002	0.0019	0.0047	2.1	0.0019	0.043	0.0057	<0.005	<0.0002	NA	0.039	
	08/21/19	200.7/200.8	0.0021	0.14	<0.002	<0.006	<0.006	0.28	<0.0025	0.0074	0.0039	0.0023	<0.0002	0.031	0.0062	
	05/08/19	200.7/200.8	0.0022	0.13	<0.002	<0.006	<0.006	0.57	0.00049	0.015	0.0053	0.0024	<0.0002	0.033	0.0088	
	02/13/19	200.7/200.8	0.0027	0.13	<0.002	<0.006	<0.006	0.25	0.00031	0.0077	0.0051	0.0026	0.00011	0.031	0.0064	
	11/19/18	200.7/200.8	0.003	0.11	<0.002	<0.006	<0.006	1.1	0.00083	0.021	0.0051	0.003	<0.0002	0.032	0.02	
	09/06/18	200.7/200.8	0.0033	0.091	<0.002	0.0018	0.0072	0.86	0.00086	0.027	0.0066	0.0016	0.00017	0.045	0.016	
	04/30/18	200.7/200.8	0.0035	0.11	<0.002	0.003	<0.006	0.51	<0.0025	0.0087	0.0063	0.0018	<0.0002	0.029	0.0084	
	02/09/18	200.7/200.8	<0.01	0.15	<0.002	<0.006	<0.006	2.9	0.0029	0.056	0.019	0.0023	0.00012	0.029	0.046	
	12/04/17	200.7/200.8	<0.05	0.11	<0.002	<0.006	<0.006	0.39	<0.0025	0.011	<0.05	0.014	<0.0002	0.028	0.0078	
	09/05/17	200.7/200.8	0.007	0.14	<0.002	0.0038	<0.006	1.9	0.0021	0.036	0.028	<0.005	<0.0002	0.029	0.032	
	06/02/17	200.7/200.8	0.0045	0.16	<0.002	0.0027	<0.006	3.1	0.0029	0.062	0.014	<0.005	<0.0002	0.027	0.054	
	02/21/17	200.7/200.8	0.0094	0.29	<0.002	0.0042	<0.006	3.1	0.0043	0.14	0.019	<0.005	<0.0002	NA	0.031	
	11/14/16	200.7/200.8	0.011	0.24	<0.002	0.0096	0.0049	11	0.016	0.31	0.021	0.0079	0.00014	0.027	0.29	
	09/09/16	200.7/200.8	0.007	0.18	<0.002	<0.006	<0.006	1.4	0.0013	0.029	0.025	<0.005	0.0001	0.023	0.026	
	06/07/16	200.7/200.8	<0.05	0.2	<0.002	<0.006	<0.006	3	0.0031	0.056	0.021	<0.005	0.000075	0.026	0.053	
	03/02/16	200.7/200.8	<0.02	0.19	<0.002	0.0028	<0.006	3.6	0.0044	0.11	0.011	<0.05	<0.0002	0.025	0.087	
	10/29/15	200.7/200.8	0.0075	0.13	<0.002	<0.006	<0.006	0.15	0.0055	0.032	0.019	<0.005	<0.0002	0.023	0.091	
	08/11/15	200.7/200.8	<0.01	0.22	<0.002	<0.006	<0.006	6.1	0.0068	0.11	0.018	<0.005	<0.0002	0.025	0.12	
	06/02/15	200.7/200.8	<0.01	0.24	<0.002	0.0066	<0.006	3.2	<0.005	0.095	<0.02	<0.005	<0.0002	0.022	0.061	
	03/10/15	200.7/200.8	<0.01	0.23	<0.002	<0.006	<0.006	4.3	<0.01	0.075	0.026	<0.005	<0.0002	0.02	0.089	
	11/18/14	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	0.15	<0.001	0.032	0.024	<0.005	<0.0002	0.03	0.032	
	09/17/14	200.7/200.8	<0.01	0.21	<0.002	0.0092	<0.006	6.5	0.0098	0.15	0.022	<0.005	<0.0002	0.029	0.23	
	06/16/14	200.7/200.8	<0.01	0.11	<0.002	<0.006	<0.006	0.42	<0.01	0.055	0.028	<0.005	<0.0002	0.065	0.26	
OW-59	10/15/19	200.7/200.8	0.0096	0.32	<0.002	0.01	0.0065	8.6	0.0054	0.37	<0.01	0.003	<0.0002	NA	0.018	
	08/21/19	200.7/200.8	0.0055	0.076	<0.002	0.0016	<0.006	2.1	0.0014	0.22	<0.005	0.0038	<0.0002	0.13	<0.01	
	05/02/19	200.7/200.8	0.0095	0.41	<0.002	0.014	0.01	11	0.0095	0.54	0.0038	0.0044	<0.0002	0.14	0.023	
	02/13/19	200.7/200.8	0.0055	0.066	<0.002	<0.006	<0.006	1.8	0.0017	0.13	<0.005	0.0052	0.000044	0.13	0.015	
	11/07/18	200.7/200.8	0.0074	0.058	<0.002	0.0019	<0.006	1.6	0.0014	0.12	<0.005	0.0068	<0.0002	0.14	0.0078	
	08/28/18	200.7/200.8	0.0068	0.038	<0.002	<0.006	0.0043	0.97	<0.0025	0.064	<0.005	0.0056	0.000097	0.14	0.0049	
	05/08/18	200.7/200.8	0.0076	0.02	<0.002	<0.006	0.0059	0.36	<0.0005	0.041	<0.01	0.003	0.000058	0.14	<0.01	
	02/22/18	200.7/200.8	0.012	0.16	<0.002	<0.006	0.0073	4.9	0.0039	0.19	<0.02	<0.005	0.000042	0.16	<0.05	
12/06/17	200.7/200.8	0.0095	0.064	<0.002	<0.006	0.0042	2.1	0.0014	0.17	<0.02	0.0037	<0.0002	0.17	0.0041		



8.14.2 STP1-NW, OW-59, OW-60, OW-62  
Total Metals Analytical Result Summary

PARAMETERS																
STANDARDS				Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)				0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.05	0.002	0.03	10.0
40 CFR 141.62 MCL				0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUNE 2019)				0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL TAP WATER (NOVEMBER 2019)				0.000052	3.8	0.00092	22	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
WELL ID	DATE SAMPLED	METHOD														
OW-60	10/15/19	200.7/200.8		0.0052	0.43	<0.002	0.078	0.013	11	0.0059	0.47	0.018	<0.005	<0.0002	NA	0.058
	08/21/19	200.7/200.8		0.0048	0.49	<0.002	0.038	0.0088	15	0.012	0.57	0.022	<0.005	0.00014	0.054	0.041
	05/02/19	200.7/200.8		0.0047	0.82	<0.002	0.031	0.0072	16	0.014	0.86	0.017	<0.005	0.000061	0.053	0.04
	02/13/19	200.7/200.8		0.0029	0.2	<0.002	0.011	<0.006	4.8	0.0037	0.21	0.016	0.0025	0.000061	0.051	0.015
	11/07/18	200.7/200.8		0.0039	0.2	<0.002	0.014	<0.006	5	0.0038	0.22	0.018	0.0036	0.000045	0.054	0.018
	08/28/18	200.7/200.8		0.0029	0.096	<0.002	0.0063	0.0064	2.5	0.0017	0.19	0.016	0.0031	0.000096	0.053	0.0081
	05/08/18	200.7/200.8		0.0055	0.36	<0.002	0.019	0.009	8.4	0.0077	1.3	0.022	0.0013	0.000049	0.052	0.021
	02/22/18	200.7/200.8		0.011	0.23	<0.002	0.02	0.0063	6.7	0.0051	0.25	0.032	0.0021	0.000052	0.053	0.019
	12/06/17	200.7/200.8		<0.02	0.12	<0.002	0.0033	<0.006	3.1	0.002	0.13	0.021	0.0024	<0.0002	0.048	0.0097
	11/29/18	200.7/200.8		0.007	0.21	<0.002	0.0079	0.0086	4.6	0.0032	0.45	<0.001	<0.005	<0.0002	NA	0.024
OW-62	08/22/18	200.7/200.8		0.0068	0.12	<0.002	0.0025	0.0078	1.4	0.0012	0.34	<0.001	<0.005	0.000038	<0.0005	0.044
	04/29/18	200.7/200.8		0.014	0.24	<0.002	0.012	0.0092	7.6	0.0049	0.44	<0.001	<0.005	NA	0.035	0.024

NA = Not analyzed; NE = Not established.

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



















### 8.15 EVAPORATION PONDS (EP-1 thru EP-12B)











### 8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

## BTEX, MTBE and General Chemistry Analytical Result Summary

STANDARDS														
WQCC 20NMAC 6.2.3103														
40 CFR 141.61 and 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
POND ID	DATE SAMPLED	METHOD												
EP-5	11/20/19 <sup>1</sup>	--												
	04/30/19	8260B/300.0	<0.01	<0.01	<0.015	<0.01	31	3900	<2.0	<0.5	1500	7.81	18000	
	09/06/18	8260B/300.0	<0.001	<0.001	<0.0015	<0.001	30	5800	<4.0	<4.0	1500	NA	NA	
	09/06/18	8260B	<0.001	<0.001	<0.0015	<0.001	30	5800	<4.0	<4.0	1500	NA	NA	
	02/21/18	82660B	0.00041	0.00052	<0.005	<0.005	14	6300	<2.0	<0.5	1200	NA	NA	
	10/24/17	8260B	<0.005	<0.005	<0.0075	<0.005	30	10000	<10	<10	2200	7.83	34000	
	03/30/17	8260B	<0.005	<0.005	<0.0075	<0.005	20	7700	<2.0	<0.50	1900	7.80	33000	
	08/29/16	8260B	0.00011	<0.001	<0.0015	<0.001	20	11000	<10	<10	2900	8.09	39000	
	03/02/16	8260B	<0.005	<0.005	<0.0075	<0.005	27	9100	<10	<10	2000	7.77	31000	
	09/01/15	8260B	<0.005	<0.01	<0.015	<0.01	20	8500	<10	<1.0	1600	7.97	32000	
	03/24/15	8260B	<0.01	<0.01	<0.015	<0.01	17	7500	<10	<1.0	1600	7.82	31000	
	11/12/14	8260B	<0.005	<0.01	<0.015	<0.01	27	13000	<10	<1.0	2100	7.93	44000	
	03/05/14	8260B	<0.01	<0.01	<0.015	<0.01	12	5200	<1.0	<1.0	740	7.83	16000	
	10/15/13	8260B	<0.01	<0.01	<0.015	<0.01	29	6500	<4.0	<4.0	950	7.89	21000	
	05/28/13	8260B	<0.01	<0.01	<0.015	<0.01	17	8400	<10	<1.0	1400	7.67	32000	
	11/06/12	8260B	<0.01	<0.01	<0.015	<0.01	16	5600	<50	<2.0	870	8.13	23000	
	05/29/12	8260B	<0.01	<0.01	<0.015	<0.01	21	6100	<4.0	<4.0	1300	7.84	22000	
	11/01/11	8260B	<0.01	<0.01	<0.015	<0.01	26	4300	<20	<20	1600	7.74	21000	
	05/23/11	8260B	<0.01	<0.01	<0.015	<0.01	27	6700	<5.0	<1.0	1200	8.06	26000	
	11/16/10	8260B	<0.001	<0.001	<0.003	<0.001	20	4200	<20	<20	1200	7.86	18000	
08/02/10	8260B	<0.001	<0.001	<0.0015	<0.001	39	4800	<10	<10	1300	7.97	20000		
04/20/10	8260B	<0.001	<0.001	<0.0015	<0.001	53	12000	<40	<40	1100	8.04	40000		











8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX, MTBE and General Chemistry Analytical Result Summary

PARAMETERS														
STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			0.005	1	0.7	0.62	0.1	1.6	250	1	10	600.0	6 to 9	NE
40 CFR 141.61 and 141.62 MCL			0.005	1	0.7	10	NE	4.0	NE	1	10	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			0.00455	1.09	0.0149	0.193	0.143	1.18	NE	1.97	31.60	NE	NE	NE
EPA RSL for Tap Water (NOV 2019)			0.0046	1.1	0.0015	0.19	0.14	0.8	NE	2	32	NE	NE	NE
POND ID	DATE SAMPLED	METHOD												
EP-8	11/20/19	8260B/300.0	<0.001	<0.001	<0.001	<0.0015	<0.001	65	160000	<400	<400	14000	7.58	460000
	04/29/19	8260B/300.0	<0.01	<0.01	<0.01	<0.015	<0.01	26	62000	53	<2.0	1000	7.93	180000
	09/07/18	8260b	<0.001	<0.001	<0.001	<0.0015	<0.001	36	37000	<40	<40	6600	NA	NA
	02/23/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	17	71000	17	17	12000	NA	NA
	10/24/17	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	<10	94000	<100	<100	16000	7.86	290000
	03/30/17	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	11	64000	<40	<40	12000	8.07	190000
	08/30/16	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	17	81000	<40	<40	13000	7.63	220000
	09/01/15	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	27	64000	<10	<1.0	13000	7.80	180000
	03/25/15	8260B	<0.005	<0.01	<0.01	<0.015	<0.1	27	65000	<40	<40	14000	7.96	130000
	11/12/14	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	41	61000	<40	<40	11000	7.82	170000
	03/05/14	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	27	39000	<10	<1.0	7900	7.82	130000
	10/15/13	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	33	110000	<40	<40	18000	7.07	370000
	05/28/13	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	29	47000	<10	<1.0	8600	7.59	170000
	11/06/12	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	71	250000	<500	<500	31000	6.58	550000
	05/29/12	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	33	67000	<20	<20	9700	7.53	180000
	11/01/11	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	27	27000	<20	<20	3600	7.92	66000
	05/23/11	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	43	170000	<100	<100	18000	6.83	370000
	11/16/10	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	44	81000	<200	<200	12000	7.14	190000
	08/02/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	43	110000	<100	<100	22000	6.21	300000
	04/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	46	49000	<200	<200	6900	7.31	150000











### 8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

## BTEX, MTBE and General Chemistry Analytical Result Summary

PARAMETERS																	
Benzene (mg/L)	Toluene (mg/L)	Ethyl- benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)						
0.005	1	0.7	0.62	0.1	1.6	250	1	10	600.0	6 to 9	NE						
0.005	1	0.7	10	NE	4.0	NE	1	10	NE	NE	NE						
0.00455	1.09	0.0149	0.193	0.143	1.18	NE	1.97	31.60	NE	NE	NE						
0.0046	1.1	0.0015	0.19	0.14	0.8	NE	2	32	NE	NE	NE						
EP-12A	POND ID		DATE SAMPLED		METHOD												
			11/21/19		8260B/300.0		<0.005	<0.005	<0.0075	<0.005	<0.5	<0.5	2000	7.72	12000		
			4/29/2019 <sup>2</sup>		--												
			09/07/18		8260B		<0.001	<0.001	<0.0015	<0.001	27	30000	<20	<20	7600	NA	NA
			02/23/18		8260B		<0.001	<0.001	<0.0015	<0.001	27	5400	1.1	<0.5	1600	NA	NA
			10/24/17		8260B		<0.005	<0.005	<0.0075	<0.005	27	1500	<10	<1.0	520	7.76	54000
			03/30/17		8260B		<0.005	<0.005	<0.0075	<0.005	21	4900	<2.0	<0.50	1600	7.91	26000
			08/30/16		8260B		<0.01	<0.01	<0.015	<0.01	18	5800	<2.0	<0.5	3100	7.79	21000
			03/02/16		8260B		<0.005	<0.005	<0.0075	<0.005	24	6500	<10	<1.0	1600	7.95	23000
			09/01/15		8260B		<0.005	<0.01	<0.015	<0.01	31	4900	<10	<1.0	1700	8.31	20000
			03/25/15		8260B		<0.005	<0.01	<0.015	<0.01	20	2500	<2.0	<2.0	1000	8.02	13000
			11/12/14		8260B		<0.01	<0.01	<0.015	<0.01	43	3000	2.5	2.5	1600	8.24	12000
			03/05/14		8260B		<0.01	<0.01	<0.015	<0.01	34	1800	<1.0	<1.0	1100	7.90	8000
			10/15/13		8260B		<0.01	<0.01	<0.015	<0.01	43	1900	<2.0	<2.0	1300	8.20	8600
			05/28/13		8260B		<0.01	<0.01	<0.015	<0.01	29	3800	<1.0	<1.0	1700	7.98	17000
			11/06/12		8260B		<0.01	<0.01	<0.015	<0.01	35	4000	<2.0	<2.0	1400	8.09	19000
			05/29/12		8260B		<0.01	<0.01	<0.015	<0.01	23	7600	<4.0	<4.0	2300	7.88	25000
			11/01/11		8260B		<0.01	<0.01	<0.015	<0.01	36	5400	<20	<20	1500	8.05	18000
			05/23/11		8260B		<0.01	<0.01	<0.015	<0.01	28	6400	<5.0	<1.0	1400	8.08	26000
		11/16/10		8260B		<0.001	<0.001	<0.003	<0.0015	21	11000	<40	<40	3100	8.07	39000	
		04/20/10		8260B		<0.001	<0.001	<0.0015	<0.001	29	6400	<20	<20	1300	7.89	20000	



8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX, MTBE and General Chemistry Analytical Result Summary

PARAMETERS															
STANDARDS															
WQCC 20NMAC 6.2.3103															
40 CFR 141.61 and 141.62 MCL															
NMED Tap Water (Rev 2. JUN 2019)															
EPA RSL for Tap Water (NOV 2019)															
POND ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	
EP-12B	11/21/19	8260B/300.0	0.0012	<0.005	<0.005	<0.0075	<0.005	31	980	<0.5	<0.5	1700	7.64	8500	
	04/29/19	8260B/300.0	<0.01	<0.01	<0.01	<0.015	<0.01	28	7200	5.5	<0.5	2800	8.63	29000	
	09/07/18	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	36	3800	<20	<20	1400	NA	NA	
	02/22/18	8260B	0.0014	0.0022	0.00034	0.0021	<0.001	20	2700	<2.0	<0.5	900	NA	NA	
	10/24/17	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	34	4000	<10	<1.0	1200	7.44	17000	
	03/30/17	8260B	0.0068	0.012	0.0042	0.013	<0.005	20	4300	<2.0	<0.5	1400	7.78	20000	
	08/30/16	8260B	0.0035	0.0024	0.0012	<0.015	<0.01	21	2600	<2.0	<0.5	1600	7.82	15000	
	03/02/16	8260B	0.0012	0.0017	<0.005	<0.0075	<0.005	34	4200	<10	<10	1200	7.86	18000	
	09/01/15	8260B	0.0099	0.021	<0.01	<0.015	<0.01	51	3200	<10	<1.0	900	7.96	15000	
	03/25/15	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	11	2800	<2.0	<2.0	980	7.96	13000	
	11/12/14	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	38	1900	<2.0	<2.0	1200	7.84	7600	
	03/05/14	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	38	1800	<1.0	<1.0	710	7.97	7800	
	10/15/13	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	14	1300	<2.0	<2.0	770	8.43	6800	
	05/28/13	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	32	3100	<1.0	<1.0	1500	7.93	14000	
	11/06/12	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	71	1900	<2.0	<2.0	1100	7.91	12000	
	05/29/12	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	19	7000	<4.0	<10	1500	7.75	25000	
	11/01/11	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	39	3600	<20	<20	1500	8.12	18000	
	05/23/11	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	37	4800	<5.0	<1.0	1100	8.07	22000	
	11/16/10	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	22	6100	<20	<20	1700	7.74	22000	
	04/20/10	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	80	5000	<5.0	<5.0	950	8.06	9400	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NOTES

1) Pond 6 is combined with ponds 4 and 5 as one pond.

2) Pond was not sampled - dry.



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>	<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE	NE		
EPA RSL for Tap Water (NOV 2019)			NE	NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD				
EP-1	11/12/14	SM5210B/E410.4/SM9223B	240	1700	ND	
	03/05/14	SM5210B/E410.4/SM9223B	55	560	<10	
	10/16/13	SM5210B/E410.4/SM9223B	<33.3	560	20	NL
	05/29/13	SM5210B/E410.4/SM9223B	75	310	10	NL
	11/07/12	SM5210B/E410.4/SM9223B	520	1100	10462	NL
	05/30/12	SM5210B/E410.4/SM9223B	340	990	>24196	NL
	11/02/11	SM5210B/9223B	960	2250	>2419.6	NL
	05/24/11	SM5210B/9223B	440	1340	1986.3	NL
	11/17/10	SM9223B/3014	1400	3200	<10	NL
	08/2-3/10	SM5210B/E410.4/3014	290	346	>2419.6	NL
04/21/10	SM5210B/E410.4/3014	1080	2210	>2419.6	>2419.6	
EP-2	11/21/19	SM5210B/E410.4/SM9223B	1649	22990	>24196	
	04/30/19	SM5210B/E410.4/SM9223B	515	738	>24196	
	09/14/18	SM5210B/E410.4/SM9223B	180	373	12997	
	03/01/18	SM5210B/E410.4/SM9223B	450	787	>24196	
	10/24/17	SM5210B/E410.4/SM9223B	410	770	>24196	NL
	03/30/17	SM5210B/E410.4/SM9223B	410	1030	>24196	NL
	08/29/16	SM5210B/E410.4/SM9223B	220	694	>24196	
	03/08/16	SM5210B/E410.4/SM9223B	>413.04	977	>2419.6	>2419.6
	09/02/15	SM5210B/E410.4/SM9223B	460	775	5475	
	03/26/15	SM5210B/E410.4/SM9223B	330	610	>24196	
	11/12/14	SM5210B/E410.4/SM9223B	170	580	>24196	
	03/05/14	SM5210B/E410.4/SM9223B	450	1000	>2419.6	
	10/16/13	SM5210B/E410.4/SM9223B	420	1100	3282	NL
	05/29/13	SM5210B/E410.4/SM9223B	210	700	31	NL
	11/07/12	SM5210B/E410.4/SM9223B	750	1300	<10	NL
	05/30/12	SM5210B/E410.4/SM9223B	100	860	4106	
	11/02/11	SM5210B/9223B	530	1560	>2419.6	NL
	05/24/11	SM5210B/9223B	230	737	648.8	NL
	11/17/10	SM9223B/3014	550	1020	1553.1	NL
	08/2-3/10	SM5210B/E410.4/3014	64	172	>2419.6	NL
	04/21/10	SM5210B/E410.4/3014	1100	2060	>2419.6	>2419.6



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>	<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE	NE		
EPA RSL for Tap Water (NOV 2019)			NE	NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD				
EP-3	11/20/19	SM5210B/E410.4/SM9223B	300	731	>24196	
	04/30/19	SM5210B/E410.4/SM9223B	158	683	19863	
	09/14/18	SM5210B/E410.4/SM9223B	120	340	1354	
	03/01/18	SM5210B/E410.4/SM9223B	260	611	2987	
	10/24/17	SM5210B/E410.4/SM9223B	300	800	>24196	NL
	03/30/17	SM5210B/E410.4/SM9223B	280	717	>24196	NL
	08/29/16	SM5210B/E410.4/SM9223B	110	746	>24196	
	03/08/16	SM5210B/E410.4/SM9223B	240	627	1732.9	>2419.6
	09/02/15	SM5210B/E410.4/SM9223B	120	725	1076	
	03/26/15	SM5210B/E410.4/SM9223B	230	977	24196	
	11/12/14	SM5210B/E410.4/SM9223B	120	590	408	
	03/05/14	SM5210B/E410.4/SM9223B	440	990	122	
	10/16/13	SM5210B/E410.4/SM9223B	320	870	121	NL
	05/29/13	SM5210B/E410.4/SM9223B	120	1600	<10	NL
	11/07/12	SM5210B/E410.4/SM9223B	390	900	10	NL
	05/30/12	SM5210B/E410.4/SM9223B	69	980	10	NL
	11/02/11	SM5210B/9223B	140	608	>2419.6	NL
	05/24/11	SM5210B/9223B	190	574	1	NL
	11/17/10	SM9223B/3014	120	560	40.8	NL
	08/2-3/10	SM5210B/E410.4/3014	36	238	>2419.6	NL
	04/21/10	SM5210B/E410.4/3014	200	771	100.6	>2419.6
EP-4	04/30/19	SM5210B/E410.4/SM9223B	264	800	>24196	
	09/14/18	SM5210B/E410.4/SM9223B	85	324	71	
	03/01/18	SM5210B/E410.4/SM9223B	160	106	402	
	10/24/17	SM5210B/E410.4/SM9223B	280	990	>24196	NL
	03/30/17	SM5210B/E410.4/SM9223B	390	802	>24196	NL
	08/29/16	SM5210B/E410.4/SM9223B	<64.88	872	6131	
	03/08/16	SM5210B/E410.4/SM9223B	190	569	36.3	2419.6
	09/02/15	SM5210B/E410.4/SM9223B	110	909	880	
	03/26/15	SM5210B/E410.4/SM9223B	110	730	5475	
	11/12/14	SM5210B/E410.4/SM9223B	120	670	63	
	03/05/14	SM5210B/E410.4/SM9223B	500	1000	1	
	10/16/13	SM5210B/E410.4/SM9223B	270	840	31	NL
	05/29/13	SM5210B/E410.4/SM9223B	96	700	<10	NL
	11/07/12	SM5210B/E410.4/SM9223B	230	880	<10	NL
	05/30/12	SM5210B/E410.4/SM9223B	59	680	<10	NL
	11/02/11	SM5210B/9223B	62	478	547.5	NL
	05/24/11	SM5210B/9223B	190	639	4.1	NL
	11/17/20	SM9223B/3014	140	440	12	NL
	08/2-3/10	SM5210B/E410.4/3014	35	204	>2419.6	NL
	04/21/10	SM5210B/E410.4/3014	281	683	<1.0	>2419.6



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>	<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE	NE		
EPA RSL for Tap Water (NOV 2019)			NE	NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD				
EP-5	04/30/19	SM5210B/E410.4/SM9223B	97	618	109	
	09/14/18	SM5210B/E410.4/SM9223B	23	928	10	
	03/01/18	SM5210B/E410.4/SM9223B	>171.3	849	2	
	10/24/17	SM5210B/E410.4/SM9223B	<2	820	52	NL
	03/30/17	SM5210B/E410.4/SM9223B	32	990	52	NL
	08/29/16	SM5210B/E410.4/SM9223B	19	861	31	
	03/08/16	SM5210B/E410.4/SM9223B	63	537	1	613.1
	09/02/15	SM5210B/E410.4/SM9223B	17	979	1515	
	03/26/15	SM5210B/E410.4/SM9223B	47	860	135	
	11/12/14	SM5210B/E410.4/SM9223B	<20.55	660	<1	
	03/05/14	SM5210B/E410.4/SM9223B	>69.15	1000	<1	
	10/16/13	SM5210B/E410.4/SM9223B	220	720	31	NL
	05/29/13	SM5210B/E410.4/SM9223B	66	600	<10	NL
	11/07/12	SM5210B/E410.4/SM9223B	150	1000	<10	NL
	05/30/12	SM5210B/E410.4/SM9223B	35	760	10	NL
	11/02/11	SM5210B/9223B	29	302	5.2	NL
	05/24/11	SM5210B/9223B	150	413	1	NL
	11/17/10	SM9223B/3014	76	320	4.1	NL
	08/2-3/10	SM5210B/E410.4/3014	40	208	1960.8	NL
04/21/10	SM5210B/E410.4/3014	123	782	2	>2419.6	
EP-6	11/20/19 <sup>1</sup>	SM5210B/E410.4/SM9223B	12	214	183	
	04/29/19	SM5210B/E410.4/SM9223B	54	393	20	
	09/14/18	SM5210B/E410.4/SM9223B	14	549	10	
	03/01/18	SM5210B/E410.4/SM9223B	150	591	109	
	10/24/17	SM5210B/E410.4/SM9223B	100	640	63	NL
	03/30/17	SM5210B/E410.4/SM9223B	30	981	10	NL
	08/29/16	SM5210B/E410.4/SM9223B	14	746	10	
	03/02/16	SM5210B/E410.4/SM9223B	77	574	10	
	09/02/15	SM5210B/E410.4/SM9223B	8	1700	341	
	03/26/15	SM5210B/E410.4/SM9223B	47	978	63	
	11/12/14	SM5210B/E410.4/SM9223B	<15.30	810	<1	
	03/05/14	SM5210B/E410.4/SM9223B	>171.97	600	<10	NL
	10/16/13	SM5210B/E410.4/SM9223B	<25.5	940	<10	NL
	05/29/13	SM5210B/E410.4/SM9223B	46	710	<10	NL
	11/07/12	SM5210B/E410.4/SM9223B	10	1000	<1.0	NL
	05/30/12	SM5210B/E410.4/SM9223B	18	710	<1.0	NL
	11/02/11	SM5210B/9223B	7.3	252	47.3	NL
	05/24/11	SM5210B/9223B	71	473	<1.0	NL
	11/17/10	SM9223B/3014	<1200	168	8.6	NL
	08/2-3/10	SM5210B/E410.4	15	172	1892	NL
04/21/10	SM5210B/E410.5	54.8	290	1	>2419.6	



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS				
			BOD (mg/L)		COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>		<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE		NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE		NE		
EPA RSL for Tap Water (NOV 2019)			NE		NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD					
EP-7	11/20/19	SM5210B/E410.4/SM9223B	15	5040	<10		
	04/29/19	SM5210B/E410.4/SM9223B	15	2370	<10		
	09/14/18	SM5210B/E410.4/SM9223B	46	4690	<10		
	03/01/18	SM5210B/E410.4/SM9223B	27	3530	<10		
	10/24/17	SM5210B/E410.4/SM9223B	NA	NA	NA	NL	
	03/30/17	SM5210B/E410.4/SM9223B	18	3150	<1		
	08/30/16	SM5210B/E410.4/SM9223B	4	3140	<1		
	03/08/16	SM5210B/E410.4/SM9223B	41	820	<1		
	09/02/15	SM5210B/E410.4/SM9223B	21	1960	<10		
	03/26/15	SM5210B/E410.4/SM9223B	11	658	<10		
	11/12/14	SM5210B/E410.4/SM9223B	28	4400	20		
	03/05/14	SM5210B/E410.4/SM9223B	11	3900	<1.0		
	10/16/13	SM5210B/E410.4/SM9223B	37	3200	<10		
	05/29/13	SM5210B/E410.4/SM9223B	19	6000	<10		
	11/07/12	SM5210B/E410.4/SM9223B	21	2300	<1.0		
	05/30/12	SM5210B/E410.4/SM9223B	15	3200	<1.0		
	11/02/11	SM5210B/9223B	15	1240	<1.0		
	05/24/11	SM5210B/9223B	27	918	<1.0		
	11/17/10	SM9223B/3014	380	920	<1.0		
	08/2-3/10	SM5210B/E410.4/3014	5	870	<1.0		
	04/21/10	SM5210B/E410.4/3014	<60.0	1010	<1.0		
EP-8	11/20/19	SM5210B/E410.4/SM9223B	28	5170	<10		
	04/29/19	SM5210B/E410.4/SM9223B	20	1850	<10		
	09/14/18	SM5210B/E410.4/SM9223B	17	2310	<10		
	03/01/18	SM5210B/E410.4/SM9223B	29	4040	<10		
	10/24/17	SM5210B/E410.4/SM9223B	23	2100	<10		
	03/30/17	SM5210B/E410.4/SM9223B	18	5430	<10		
	08/30/16	SM5210B/E410.4/SM9223B	6	3180	<1		
	09/02/15	SM5210B/E410.4/SM9223B	32	880	10		
	03/26/15	SM5210B/E410.4/SM9223B	12	600	<1		
	11/12/14	SM5210B/E410.4/SM9223B	27	4100	10		
	03/05/14	SM5210B/E410.4/SM9223B	13	2900	<1.0		
	10/16/13	SM5210B/E410.4/SM9223B	6.8	9800	<10		
	05/29/13	SM5210B/E410.4/SM9223B	22	4600	<10		
	11/07/12	SM5210B/E410.4/SM9223B	10	13000	<10		
	05/30/12	SM5210B/E410.4/SM9223B	4.5	3800	<1.0		
	11/02/11	SM5210B/9223B	9	512	32.3		
	05/24/11	SM5210B/9223B	46	3140	<1.0		
	11/17/10	SM9223B/3014	400	1720	<1.0		
	08/2-3/10	SM5210B/E410.4/3014	5	2520	<1.0		
	04/21/10	SM5210B/E410.4/3014	14.3	776	<1.0		



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS				
			BOD (mg/L)		COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>		<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE		NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE		NE		
EPA RSL for Tap Water (NOV 2019)			NE		NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD					
EP-9	11/20/19	SM5210B/E410.4/SM9223B	15	2230	<10		
	04/29/19	SM5210B/E410.4/SM9223B	90	1630	<10		
	09/14/18	SM5210B/E410.4/SM9223B	30	2160	<10		
	03/01/18	SM5210B/E410.4/SM9223B	26	1510	<10		
	10/24/17	SM5210B/E410.4/SM9223B	20	5000	<10		
	03/30/17	SM5210B/E410.4/SM9223B	30	5590	<1		
	08/30/16	SM5210B/E410.4/SM9223B	37	5420	<1		
	03/02/16	SM5210B/E410.4/SM9223B	<2.99	2720	<1		
	09/02/15	SM5210B/E410.4/SM9223B	20	1480	74		
	03/26/15	SM5210B/E410.4/SM9223B	11	509	<10		
	11/13/14	SM5210B/E410.4/SM9223B	4.2	3900	<1		
	03/05/14	SM5210B/E410.4/SM9223B	15	1000	<1		
	10/16/13	SM5210B/E410.4/SM9223B	<12.3	4700	<10		
	05/29/13	SM5210B/E410.4/SM9223B	19	7400	<10		
	11/07/12	SM5210B/E410.4/SM9223B	7.9	1400	<1.0		
	05/30/12	SM5210B/E410.4/SM9223B	23	2800	<1.0		
	11/02/11	SM5210B/9223B	9	1870	<1.0		
	05/24/11	SM5210B/9223B	43	1640	<1.0		
	11/17/10	SM9223B/3014	350	1240	<1.0		
	04/21/10	SM5210B/E410.4/3014	<60.0	760	<1.0		
EP-11	04/29/19	SM5210B/E410.4/SM9223B	17	2160	<10		
	09/14/18	SM5210B/E410.4/SM9223B	>199.62	14200	<10		
	03/01/18	SM5210B/E410.4/SM9223B	44	3290	<10		
	10/24/17	SM5210B/E410.4/SM9223B	4	2260	<1		
	03/30/17	SM5210B/E410.4/SM9223B	21	4120	<1		
	08/30/16	SM5210B/E410.4/SM9223B	4	2260	<1		
	03/08/16	SM5210B/E410.4/SM9223B	18	210	<1		
	09/02/15	SM5210B/E410.4/SM9223B	30	1120	10		
	03/26/15	SM5210B/E410.4/SM9223B	16	692	10		
	11/12/14	SM5210B/E410.4/SM9223B	89	4700	<10		
	03/05/14	SM5210B/E410.4/SM9223B	48	570	<10		
	10/16/13	SM5210B/E410.4/SM9223B	190	530	20		
	05/29/13	SM5210B/E410.4/SM9223B	30	610	<10		
	11/07/12	SM5210B/E410.4/SM9223B	130	620	<10		
	05/30/12	SM5210B/E410.4/SM9223B	20	890	<10		
	11/02/11	SM5210B/9223B	40	486	461.1		
	05/24/11	SM5210B/9223B	52	711	<1.0		
	11/17/10	SM9223B/3014	350	460	4.1		
	04/21/10	SM5210B/E410.4/3014	<60.0	492	<1.0		



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>	<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE	NE		
EPA RSL for Tap Water (NOV 2019)			NE	NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD				
EP-12A	11/21/19	SM5210B/E410.4/SM9223B	116	237	15531	
	03/01/18	SM5210B/E410.4/SM9223B	86	504	<10	
	10/24/17	SM5210B/E410.4/SM9223B	270	1100	10	NL
	03/30/17	SM5210B/E410.4/SM9223B	59	721	10	NL
	08/30/16	SM5210B/E410.4/SM9223B	<39.64	618	2723	
	03/08/16	SM5210B/E410.4/SM9223B	130	867	21.6	980.4
	09/02/15	SM5210B/E410.4/SM9223B	150	755	8164	
	03/26/15	SM5210B/E410.4/SM9223B	170	403	12033	
	11/12/14	SM5210B/E410.4/SM9223B	<37.50	450	131	
	03/05/14	SM5210B/E410.4/SM9223B	210	560	<10	
	10/16/13	SM5210B/E410.4/SM9223B	270	930	41	NL
	05/29/13	SM5210B/E410.4/SM9223B	100	1400	<10	NL
	11/07/12	SM5210B/E410.4/SM9223B	150	650	<10	NL
	05/29/12	SM5210B/E410.4/SM9223B	22	660	<10	NL
	11/02/11	SM5210B/9223B	85	515	>2419.6	NL
	05/24/11	SM5210B/9223B	130	582	1	NL
	11/17/10	SM9223B/3014	330	300	64.4	NL
	04/21/10	SM5210B/E410.4/3014	87.3	675	47.6	>2419.6
EP-12B	11/21/19	SM5210B/E410.4/SM9223B	292	448	>24196	
	04/29/19	SM5210B/E410.4/SM9223B	38	2160	<10	
	09/14/18	SM5210B/E410.4/SM9223B	<35.2	599	120	
	03/01/18	SM5210B/E410.4/SM9223B	280	678	12997	
	10/24/17	SM5210B/E410.4/SM9223B	370	780	24200	NL
	03/30/17	SM5210B/E410.4/SM9223B	260	694	>24196	NL
	08/30/16	SM5210B/E410.4/SM9223B	240	770	>24196	
	03/08/16	SM5210B/E410.4/SM9223B	240	806	770.1	>2419.6
	09/02/15	SM5210B/E410.4/SM9223B	300	657	3873	
	03/26/15	SM5210B/E410.4/SM9223B	270	647	17329	
	11/12/14	SM5210B/E410.4/SM9223B	110	410	1012	
	03/05/14	SM5210B/E410.4/SM9223B	430	810	<10	
	10/16/13	SM5210B/E410.4/SM9223B	460	940	231	NL
	05/29/13	SM5210B/E410.4/SM9223B	260	770	31	NL
	11/07/12	SM5210B/E410.4/SM9223B	310	850	<10	NL
	05/30/12	SM5210B/E410.4/SM9223B	37	920	<10	NL
	11/02/11	SM5210B/9223B	130	618	>2419.6	NL
	05/24/11	SM5210B/9223B	170	450	3	NL
	11/17/10	SM9223B/3014	350	280	12	NL
	04/21/10	SM5210B/E410.4/3014	342	1070	1540.2	>2419.6



**8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)**  
**BOD/COD/E-COLI Analytical Result Summary**

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)			<30 <sup>1</sup>	<125 <sup>1</sup>	< 500 organisms per 100 ml	
40 CFR 141.61 and 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)			NE	NE		
EPA RSL for Tap Water (NOV 2019)			NE	NE	MCL <sup>6</sup>	
POND ID	DATE SAMPLED	METHOD				

**DEFINITIONS**

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) Pond 6 is combined with ponds 4 and 5 as one pond.



8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS																
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)			
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10			
40 CFR 141.62 MCL			0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE			
NMED Tap Water (Rev 2. JUN 2019)			0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96			
EPA RSL for Tap Water (NOV 2019)			0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6			
POND ID	DATE SAMPLED	METHOD														
EP-1	11/12/14	200.7/200.8	0.047	0.13	0.048	<0.006	2.2	<0.005	0.68	0.017	0.00032	<0.005	0.059			
	03/05/14	200.7/200.8	0.013	0.12	0.018	<0.006	0.86	<0.001	0.51	<0.01	<0.0002	<0.001	0.028			
	10/15/13	200.7/200.8	0.011	0.1	0.018	<0.006	0.56	<0.01	0.46	<0.01	<0.0002	<0.01	0.025			
	05/28/13	200.7/200.8	0.0062	0.057	0.0099	<0.006	0.4	<0.005	0.39	0.0077	<0.0002	0.0016	0.019			
	11/06/12	200.7/200.8	0.0095	0.037	0.0079	<0.006	3.1	<0.005	0.6	0.011	0.0022	<0.0025	0.066			
	05/29/12	200.7/200.8	0.0091	0.074	<0.006	0.014	2.3	<0.005	0.15	0.0098	0.00082	<0.0025	0.17			
	11/01/11	200.7/200.8	0.0077	0.18	0.013	0.021	7.3	<0.005	0.14	0.0067	0.0045	<0.0025	0.43			
	05/23/11	200.7/200.8	0.014	0.077	0.055	0.013	20	<0.005	0.36	<0.05	0.0015	<0.0025	0.23			
	11/16/10	6010B	<0.1	<0.1	0.39	<0.03	14	<0.025	0.19	<0.25	0.00067	<0.02	0.89			
	08/02/10	6010B	<0.5	<0.5	<0.15	<0.15	15	<0.13	0.43	<1.3	0.0016	NL	1.3			
04/20/10	6010B	<0.1	0.27	<0.03	<0.03	36	<0.025	0.24	<0.25	<0.0002	0.00581	0.49				
EP-2	11/21/19	200.7/200.8	0.0094	0.14	0.0083	0.01	2.9	<0.0025	0.15	0.0032	<0.00012	0.0016	0.037			
	04/30/19	200.7/200.8	0.0068	0.25	0.0017	0.0057	0.53	<0.0025	0.29	0.0082	0.000088	0.0021	0.012			
	09/06/18	200.7/200.8	0.011	0.16	0.0024	0.01	0.16	<0.0025	0.22	0.0057	0.000085	0.0015	0.006			
	02/21/18	200.7/200.8	0.0087	0.17	0.0027	0.0093	0.94	<0.0025	0.17	0.011	0.00015	0.00071	0.024			
	10/24/17	200.7/200.8	0.012	0.17	0.005	<0.006	0.89	<0.0025	0.32	0.01	<0.0002	<0.0025	0.016			
	03/30/17	200.7/200.8	0.018	0.24	0.0075	<0.006	1.4	0.00087	0.35	0.032	0.00014	0.0017	0.024			
	08/29/16	200.7/200.8	0.014	0.12	0.012	<0.006	3.5	<0.0025	0.43	0.03	0.000069	0.0015	0.038			
	03/02/16	200.7/200.8	0.011	0.13	0.0072	<0.006	0.85	<0.005	0.22	0.018	0.000071	0.0051	0.014			
	09/01/15	200.7/200.8	0.014	0.13	0.013	<0.006	0.58	<0.0025	0.3	0.013	<0.0002	0.0048	0.014			
	03/24/15	200.7/200.8	<0.2	0.14	0.017	0.0073	4.4	<0.01	0.42	<0.2	<0.0002	<0.01	0.089			
	11/12/14	200.7/200.8	<0.02	0.11	0.012	<0.006	2.8	0.002	0.24	<0.02	<0.0002	0.0071	0.025			
	03/05/14	200.7/200.8	0.012	0.12	0.013	<0.006	1.2	<0.001	0.36	0.023	<0.0001	0.0051	0.02			
	10/15/13	200.7/200.8	0.011	0.093	0.0081	<0.006	0.45	<0.01	0.2	0.012	<0.0002	<0.01	0.032			
	05/28/13	200.7/200.8	0.013	0.056	0.017	<0.006	3.1	<0.005	0.44	0.029	<0.0002	<0.001	0.045			
	11/06/12	200.7/200.8	0.0093	0.037	0.014	<0.006	1.3	<0.005	0.37	0.0053	0.00033	<0.0025	0.025			
	05/29/12	200.7/200.8	0.011	0.064	<0.006	<0.006	0.99	<0.005	0.15	0.011	<0.0002	<0.0025	0.032			
	11/01/11	200.7/200.8	0.0083	0.059	0.008	<0.006	3.9	<0.005	0.11	0.0062	0.0015	<0.005	0.12			
	05/23/11	200.7/200.8	0.014	0.024	0.024	<0.006	2.6	<0.005	0.33	<0.05	<0.0002	<0.0025	0.037			
	11/16/10	200.7/200.8	<0.1	<0.11	0.051	<0.03	7.9	<0.025	0.41	<0.25	0.00045	<0.001	0.59			
	08/02/10	6010B	<0.2	<0.2	<0.06	<0.06	2.4	<0.05	0.23	<0.5	<0.0002	<0.001	<0.5			
	04/20/10	6010B	<0.1	<0.1	<0.03	<0.03	17	<0.025	0.31	<0.25	0.00077	0.0083	<0.25			



8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS											
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)											
40 CFR 141.62 MCL											
NMED Tap Water (Rev 2. JUN 2019)											
EPA RSL for Tap Water (NOV 2019)											
POND ID	DATE SAMPLED	METHOD									
EP-3	11/20/19	200.7/200.8									
	04/30/19	200.7/200.8									
	09/06/18	200.7/200.8									
	02/21/18	200.7/200.8									
	10/24/17	200.7/200.8									
	03/30/17	200.7/200.8									
	08/29/16	200.7/200.8									
	03/02/16	200.7/200.8									
	09/01/15	200.7/200.8									
	03/24/15	200.7/200.8									
	11/12/14	200.7/200.8									
	03/05/14	200.7/200.8									
	10/15/13	200.7/200.8									
	05/28/13	200.7/200.8									
	11/06/12	200.7/200.8									
	05/29/12	200.7/200.8									
	11/01/11	200.7/200.8									
	05/23/11	200.7/200.8									
	11/16/10	6010B									
	08/02/10	6010B									
	04/20/10	6010B									
PARAMETERS											
Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10	
0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE	
0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96	
0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6	
0.0092	0.15	0.014	0.007	9.6	<0.0025	0.34	0.0055	0.00022	0.0029	0.039	
0.0087	0.24	0.0019	0.0056	0.53	0.00075	0.36	0.0087	0.00011	0.002	0.0084	
0.013	0.15	0.0022	0.0075	0.18	<0.0025	0.23	0.006	0.00011	0.0013	0.012	
0.0077	0.28	0.0058	0.0086	3.1	0.0023	0.28	0.0094	0.00013	0.0012	0.024	
0.012	0.17	0.0057	<0.006	0.98	<0.0025	0.31	0.01	<0.0002	<0.0025	0.017	
0.018	0.22	0.0072	<0.006	0.69	0.00063	0.35	0.03	0.000079	0.0011	0.016	
0.0089	0.14	0.01	<0.006	2.5	<0.0025	0.38	0.032	0.000067	0.0016	0.033	
0.013	0.18	0.0095	<0.006	1.4	0.00083	0.38	0.019	0.000079	0.0042	0.015	
0.015	0.2	0.017	<0.006	0.42	<0.0025	0.29	0.018	<0.0002	0.0027	0.013	
<0.2	0.13	0.01	<0.006	1.2	<0.2	0.33	<0.2	<0.0002	<0.2	0.021	
<0.02	0.1	0.0098	<0.006	1.9	<0.02	0.23	<0.02	<0.0002	<0.02	0.02	
0.011	0.15	<0.03	<0.03	1	<0.01	0.41	0.019	<0.0002	<0.01	<0.05	
0.014	0.11	0.007	<0.006	0.76	<0.01	0.19	0.015	<0.0002	<0.01	0.023	
0.013	0.079	0.011	<0.006	0.89	<0.005	0.22	0.013	<0.0002	<0.005	0.016	
0.0095	0.039	0.0076	<0.006	1.7	<0.005	0.48	0.008	0.00044	<0.0025	0.031	
0.013	0.081	<0.006	<0.006	0.39	<0.005	0.11	0.013	<0.0002	<0.005	<0.01	
0.0076	0.061	0.0069	<0.006	2.6	<0.005	0.12	0.0065	0.00055	<0.005	0.06	
0.015	0.034	0.023	<0.006	2	<0.005	0.33	<0.05	<0.0002	<0.0025	0.033	
<0.1	<0.1	<0.03	<0.03	0.65	<0.025	0.19	<0.25	<0.0002	<0.001	<0.1	
<0.2	<0.2	<0.06	<0.06	3	<0.05	0.38	<0.5	<0.0002	<0.001	<0.5	
<0.1	<0.1	<0.03	<0.03	1.6	<0.025	0.39	<0.25	<0.0002	0.00326	<0.25	







8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS											
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)											
40 CFR 141.62 MCL											
NMED Tap Water (Rev 2. JUN 2019)											
EPA RSL for Tap Water (NOV 2019)											
POND ID	DATE SAMPLED	METHOD									
EP-5	04/30/19	200.7/200.8									
	09/06/18	200.7/200.8									
	02/21/18	200.7/200.8									
	10/24/17	200.7/200.8									
	03/30/17	200.7/200.8									
	08/29/16	200.7/200.8									
	03/02/16	200.7/200.8									
	09/01/15	200.7/200.8									
	03/24/15	200.7/200.8									
	11/12/14	200.7/200.8									
	03/05/14	200.7/200.8									
	10/15/13	200.7/200.8									
	05/28/13	200.7/200.8									
	11/06/12	200.7/200.8									
	05/29/12	200.7/200.8									
	11/01/11	200.7/200.8									
	05/23/11	200.7/200.8									
	11/16/10	6010B									
	08/02/10	6010B									
	04/20/10	6010B									
PARAMETERS											
Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10	
0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE	
0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96	
0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6	
0.014	0.2	0.0018	0.0044	0.38	0.00049	0.48	0.0053	0.000068	0.0023	<0.01	
0.021	0.16	0.0044	0.0045	0.094	<0.0025	0.16	<0.005	0.000044	0.0012	0.0043	
0.013	0.32	0.008	0.0085	3	<0.005	0.51	0.013	0.000075	0.0016	0.017	
0.017	0.24	0.01	<0.006	0.28	<0.005	0.47	0.016	<0.0002	0.0028	0.008	
0.032	0.18	0.0094	<0.006	0.33	0.0008	0.66	0.056	0.000059	0.0025	0.0084	
0.024	0.17	0.0085	<0.006	0.25	<0.0025	0.35	0.047	0.000054	0.0036	0.0078	
0.022	0.15	0.009	<0.006	0.6	<0.005	0.43	0.02	0.000067	0.0039	0.011	
0.026	0.16	0.016	<0.006	0.16	<0.005	0.32	0.034	<0.0002	<0.005	0.012	
0.022	0.14	0.01	<0.006	0.89	<0.01	0.89	<0.2	<0.0002	<0.01	0.016	
0.032	0.13	0.0077	<0.006	0.62	<0.02	0.48	<0.05	<0.0002	<0.05	0.012	
0.015	0.12	<0.03	<0.03	0.6	<0.01	0.55	0.016	<0.0002	<0.01	<0.05	
0.013	0.09	0.0071	<0.006	0.33	<0.01	0.18	0.017	<0.0002	<0.01	0.016	
0.012	0.084	0.012	<0.006	0.47	<0.01	0.16	<0.02	<0.0002	<0.01	0.014	
0.012	0.062	<0.006	<0.006	0.63	<0.005	0.39	0.012	<0.0002	<0.0025	0.023	
0.015	0.064	<0.006	<0.006	0.28	<0.005	0.07	0.018	<0.0002	<0.0025	<0.01	
0.011	0.094	0.0085	<0.006	0.39	<0.005	0.27	0.0069	<0.0002	<0.005	0.01	
0.018	0.083	0.022	<0.006	0.14	<0.005	0.19	<0.05	<0.0002	<0.0025	0.015	
<0.1	<0.1	0.043	<0.03	0.68	<0.025	0.22	<0.25	<0.0002	<0.001	<0.1	
<0.2	<0.2	<0.06	<0.06	<0.5	<0.05	0.069	<0.5	<0.002	<0.001	<0.5	
<0.1	0.11	<0.03	<0.03	1.1	<0.025	0.45	<0.25	<0.0002	0.00571	<0.05	



### 8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)







8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS													
STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (Rev 2. JUN 2019)													
EPA RSL for Tap Water (NOV 2019)													
POND ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
EP-8	11/20/19	200.7/200.8	0.26	0.21	<0.12	0.11	0.23	<0.05	5.1	<0.5	<0.0002	<0.05	<0.2
	04/29/19	200.7/200.8	0.12	0.19	<0.03	0.022	0.13	<0.01	0.61	0.01	<0.00002	0.0046	<0.05
	09/07/18	200.7/200.8	0.096	0.2	0.009	0.029	0.062	<0.01	1	<0.02	0.000046	0.0031	<0.01
	02/23/18	200.7/200.8	0.15	0.25	<0.03	<0.03	0.72	<0.1	0.65	<0.2	<0.0002	<0.1	<0.05
	10/24/17	200.7/200.8	0.12	0.22	0.026	<0.03	0.2	<0.025	1.1	0.19	<0.0002	0.0079	<0.05
	03/30/17	200.7/200.8	0.17	0.17	<0.03	<0.03	0.31	<0.025	0.55	0.31	0.000047	<0.025	0.016
	08/30/16	200.7/200.8	0.14	0.19	0.016	<0.03	<0.1	<0.025	1.5	0.19	0.000079	0.0095	0.018
	09/01/15	200.7/200.8	0.18	0.18	0.046	<0.03	<0.1	<0.05	0.52	0.22	<0.0002	<0.05	<0.05
	03/25/15	200.7/200.8	<0.2	0.16	<0.03	<0.03	0.34	<0.2	0.78	<0.2	<0.0002	<0.2	<0.05
	11/12/14	200.7/200.8	0.14	0.2	<0.03	<0.03	0.57	<0.05	1.2	<0.5	<0.0002	<0.05	<0.05
	03/05/14	200.7/200.8	0.12	0.12	<0.03	<0.03	0.28	<0.1	2.2	<0.1	<0.0002	<0.1	<0.05
	10/15/13	200.7/200.8	0.35	0.24	<0.06	<0.06	0.23	<0.1	18	0.3	<0.0002	<0.1	<0.1
	05/28/13	200.7/200.8	0.12	0.13	<0.03	<0.03	0.16	<0.02	4	<0.1	<0.001	<0.01	<0.05
	11/06/12	200.7/200.8	0.5	0.23	<0.12	<0.12	<0.2	<0.1	34	<2.5	<0.0002	<0.05	<0.2
	05/29/12	200.7/200.8	0.15	0.17	0.018	0.0071	0.5	<0.005	8.6	0.12	<0.0002	<0.02	0.025
	11/01/11	200.7/200.8	0.047	0.13	0.017	<0.006	0.17	<0.005	1.5	0.026	<0.0002	<0.005	0.012
	05/23/11	200.7/200.8	0.42	0.23	<0.03	<0.06	0.41	<0.025	20	<0.25	<0.0002	<0.0025	0.1
	11/16/10	6010B	<0.4	<0.4	<0.12	<0.12	<1.0	<0.025	<1.0	<1.0	<0.0002	0.003	<0.4
	08/02/10	6010B	<1.0	<1.0	<0.3	<0.3	<2.5	<0.25	24	<2.5	<0.0002	NL	<2.5
	04/20/10	6010B	0.17	0.13	<0.03	<0.03	<0.3	<0.025	9.6	<0.25	<0.0002	0.00227	<0.25



8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS											
STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)											
40 CFR 141.62 MCL											
NMED Tap Water (Rev 2. JUN 2019)											
EPA RSL for Tap Water (NOV 2019)											
POND ID	DATE SAMPLED	METHOD									
EP-9	11/20/19	200.7/200.8									
	04/29/19	200.7/200.8									
	09/07/18	200.7/200.8									
	02/23/18	200.7/200.8									
	10/24/17	200.7/200.8									
	03/30/17	200.7/200.8									
	08/30/16	200.7/200.8									
	03/02/16	200.7/200.8									
	09/01/15	200.7/200.8									
	03/25/15	200.7/200.8									
	11/13/14	200.7/200.8									
	03/05/14	200.7/200.8									
	10/15/13	200.7/200.8									
	05/28/13	200.7/200.8									
	11/06/12	200.7/200.8									
	05/29/12	200.7/200.8									
	11/01/11	200.7/200.8									
	05/23/11	200.7/200.8									
	11/16/10	6010B									
	04/20/10	6010B									
Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
0.01	2	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10	
0.01	2.0	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE	
0.000855	3.28	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96	
0.000052	3.8	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6	
0.1	0.16	<0.06	0.073	0.17	<0.05	1.9	<0.2	<0.0002	<0.05	0.091	
0.082	0.17	<0.03	0.022	0.18	<0.01	0.38	0.011	<0.0002	0.0055	<0.05	
0.082	0.18	0.0069	<0.006	0.07	<0.025	1.3	<0.05	<0.0002	<0.025	0.0055	
0.067	0.22	<0.03	<0.03	0.76	<0.025	1.3	<0.1	<0.0002	<0.05	<0.05	
0.22	0.26	0.021	<0.03	0.1	<0.025	4.9	0.33	<0.0002	0.0087	<0.05	
0.13	0.26	<0.03	<0.03	1.8	<0.025	1.4	0.23	0.000047	<0.025	0.022	
0.25	0.29	<0.06	<0.06	<0.2	<0.05	1.8	0.31	0.000092	<0.05	0.029	
0.11	0.24	0.012	<0.03	0.26	<0.025	0.27	0.079	<0.0002	0.0061	0.023	
0.14	0.22	0.033	<0.03	<0.1	<0.05	0.4	0.18	<0.0002	<0.05	<0.05	
<0.2	0.11	<0.03	<0.03	0.12	<0.2	0.5	<0.2	<0.0002	<0.2	<0.05	
0.2	0.25	<0.03	<0.03	0.19	<0.05	0.25	<1.0	<0.0002	<0.05	<0.1	
0.12	0.18	<0.03	<0.03	0.26	<0.1	2.7	0.15	<0.0002	<0.1	<0.05	
<0.1	0.18	<0.03	<0.03	0.1	<0.05	3.3	0.11	<0.0002	<0.05	<0.05	
0.095	0.2	<0.03	<0.03	<0.1	<0.05	3.4	<0.1	<0.0002	<0.01	<0.05	
0.055	0.15	<0.03	<0.03	0.13	<0.025	0.94	<0.25	<0.0002	<0.01	<0.05	
0.081	0.17	0.0096	<0.006	0.11	<0.005	4.7	0.074	<0.0002	<0.02	0.014	
0.087	0.2	<0.03	<0.03	0.037	<0.025	1.9	0.051	<0.0002	<0.02	<0.05	
0.1	0.2	<0.03	<0.03	0.18	<0.025	7.4	<0.25	<0.0002	<0.01	<0.05	
<0.4	<0.4	<0.12	<0.12	<1.0	<0.1	6.7	<1.0	<0.0002	0.003	<0.4	
<0.1	0.14	<0.03	<0.03	0.62	<0.025	29	<0.25	<0.0002	0.0022	<0.25	



8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
POND ID	DATE SAMPLED	METHOD		Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
EP-11	04/29/19	200.7/200.8		0.12	0.2	<0.03	0.02	0.19	0.0011	0.63	0.017	<0.0002	0.0045	<0.05
	09/07/18	200.7/200.8		0.96	0.027	0.064	<0.03	0.26	<0.05	9	<0.1	<0.0002	0.013	<0.05
	02/23/18	200.7/200.8		0.15	0.19	0.01	<0.03	0.67	<0.1	1.1	<0.2	<0.0002	<0.1	<0.05
	10/24/17	200.7/200.8		0.24	0.17	0.044	<0.06	0.31	<0.05	2.2	0.35	<0.0002	<0.05	<0.1
	03/30/17	200.7/200.8		0.17	0.18	0.018	<0.03	0.31	<0.025	0.59	0.32	0.000042	<0.025	0.019
	08/30/16	200.7/200.8		0.14	0.18	0.02	<0.03	<0.1	<0.025	1.5	0.19	0.000078	0.0083	0.017
	03/02/16	200.7/200.8		0.086	0.19	<0.03	<0.03	2.9	<0.025	0.55	0.075	0.000077	0.0066	0.021
	09/01/15	200.7/200.8		0.17	0.17	0.036	<0.03	0.18	<0.05	0.48	0.21	<0.0002	<0.05	<0.05
	03/25/15	200.7/200.8		<0.2	0.13	<0.03	<0.03	0.22	<0.2	0.66	<0.2	<0.0005	<0.2	<0.05
	11/12/14	200.7/200.8		0.14	0.16	<0.03	<0.03	0.38	<0.05	1.2	<0.5	<0.0002	<0.05	<0.05
	03/05/14	200.7/200.8		0.042	0.081	0.013	<0.006	0.79	<0.01	0.99	0.041	<0.0002	<0.01	0.019
	10/15/13	200.7/200.8		<0.05	0.072	0.011	<0.006	0.42	<0.05	0.41	<0.05	<0.0002	<0.05	<0.01
	05/28/13	200.7/200.8		0.042	0.064	0.01	<0.006	0.12	<0.01	0.44	<0.05	<0.0002	<0.005	<0.01
	11/06/12	200.7/200.8		0.017	0.051	0.0065	<0.006	0.99	<0.005	0.35	0.014	<0.0002	<0.0025	0.024
	05/29/12	200.7/200.8		0.028	0.086	0.0099	<0.006	0.48	<0.005	0.8	0.017	<0.0002	<0.0025	0.014
	11/01/11	200.7/200.8		0.0083	0.071	<0.006	<0.006	1.2	<0.005	0.19	0.0084	<0.0002	<0.005	0.021
	05/23/11	200.7/200.8		0.061	0.085	<0.03	<0.03	0.22	<0.025	0.9	<0.25	<0.0002	<0.01	<0.05
	11/16/10	6010B		<0.1	0.14	0.35	<0.03	1.3	<0.025	0.88	<0.25	<0.0002	0.002	<0.1
	04/20/10	6010B		<0.1	<0.1	<0.03	<0.03	0.42	<0.025	1.6	<0.25	<0.0002	0.00197	<0.25



### 8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)



8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
POND ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
EP-12B	11/21/19	200.7/200.8	0.0098	0.14	0.013	0.0048	8	<0.0025	0.4	0.0037	<0.0002	0.0025	0.032	
	04/29/19	200.7/200.8	0.021	0.097	0.0028	0.0041	0.49	0.00038	0.11	0.0078	<0.0002	0.0018	<0.01	
	09/07/18	200.7/200.8	0.017	0.16	0.0038	<0.006	0.18	<0.005	0.27	0.0059	0.00011	0.0017	0.0035	
	02/22/18	200.7/200.8	0.013	0.15	0.0042	0.0043	1.1	<0.0025	0.23	<0.02	0.000065	0.00098	0.013	
	10/24/17	200.7/200.8	0.012	0.17	0.0042	<0.006	0.85	<0.005	0.31	<0.1	<0.0002	<0.005	0.016	
	03/30/17	200.7/200.8	0.017	0.21	0.0083	<0.006	0.93	0.00087	0.37	0.03	0.000096	0.0012	0.018	
	08/30/16	200.7/200.8	0.018	0.17	0.015	<0.006	5.8	<0.005	0.47	0.03	<0.0002	0.0017	0.043	
	03/02/16	200.7/200.8	0.013	0.2	0.014	<0.006	3.7	0.0035	0.38	0.024	0.000054	0.0047	0.025	
	09/01/15	200.7/200.8	0.014	0.13	0.013	<0.006	0.55	<0.0025	0.26	0.017	<0.0002	0.0035	0.015	
	03/25/15	200.7/200.8	0.018	0.1	0.011	<0.006	1.1	<0.01	0.22	<0.2	<0.0002	<0.01	0.02	
	11/12/14	200.7/200.8	<0.05	0.087	0.011	<0.006	1.4	<0.05	0.27	<0.05	<0.0002	<0.05	0.019	
	03/05/14	200.7/200.8	0.014	0.08	0.013	<0.006	1.2	<0.01	0.55	0.014	<0.0002	<0.01	0.014	
	10/15/13	200.7/200.8	0.011	0.08	0.0076	<0.006	0.38	<0.01	0.2	0.012	<0.0002	<0.01	0.023	
	05/28/13	200.7/200.8	0.013	0.049	0.013	<0.006	1.3	<0.01	0.25	<0.02	<0.0002	<0.01	0.025	
	11/06/12	200.7/200.8	0.0092	0.04	0.0069	<0.006	1.6	<0.005	0.47	0.0089	0.00042	<0.0025	0.031	
	05/29/12	200.7/200.8	0.016	0.072	<0.006	<0.006	0.32	<0.005	0.12	0.017	<0.0002	<0.0025	<0.01	
	11/01/11	200.7/200.8	0.0076	0.063	0.0073	<0.006	2.4	<0.005	0.13	0.006	0.00055	<0.005	0.059	
	05/23/11	200.7/200.8	0.016	0.05	0.022	<0.006	0.59	<0.005	0.29	<0.05	<0.0002	<0.0025	0.02	
	11/16/10	6010B		<0.1	<0.1	<0.03	<0.03	0.84	<0.025	0.15	<0.25	<0.0002	<0.001	<0.25
	04/20/10	6010B		<0.1	<0.1	<0.03	<0.03	4.2	<0.025	0.35	<0.25	<0.0002	0.00291	<0.25

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
POND ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
EP-1	11/12/14	200.7/200.8	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
	0.01		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
	0.000855		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
	0.000052		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
	0.0093		0.0093	0.16	<0.002	<0.002	<0.006	0.64	<0.0025	0.31	0.014	<0.005	<0.0025	0.031
	<0.01		<0.01	0.13	<0.002	0.018	<0.006	0.78	<0.01	0.53	<0.01	<0.005	<0.01	0.021
	0.01		0.01	0.1	<0.002	0.017	<0.006	0.42	<0.005	0.45	<0.01	<0.05	<0.01	0.017
	<0.01		<0.01	0.061	<0.01	<0.03	<0.03	0.25	<0.01	0.43	<0.01	<0.025	<0.01	<0.05
	0.0088		0.0088	0.034	<0.002	0.0073	<0.006	2.2	<0.005	0.66	0.0072	<0.005	0.0011	0.099
	0.0084		0.0084	0.046	<0.002	<0.006	<0.006	0.76	<0.005	0.15	0.011	<0.005	<0.005	0.074
	0.0047		0.0047	0.012	<0.002	<0.006	<0.006	1	<0.005	0.12	0.015	<0.005	<0.002	0.059
<0.01		<0.01	0.014	<0.01	0.047	<0.03	<0.03	15	<0.025	0.34	<0.25	<0.025	<0.005	0.13
<0.1		<0.1	<0.1	<0.1	<0.03	<0.03	<0.03	4.3	<0.025	0.15	<0.25	<0.025	<0.001	<0.25
<0.02		<0.02	0.072	<0.002	0.013	<0.006	<0.006	2.5	<0.005	0.36	<0.05	<0.025	<0.001	0.096
<0.02		<0.02	0.085	<0.002	0.019	0.0091	0.0091	29	<0.005	0.24	0.066	<0.005	0.00442	0.28
EP-2	11/21/19	200.7/200.8	0.0079	0.4	<0.002	0.0089	0.004	2.7	<0.0025	0.15	0.0063	0.0022	0.00065	0.064
	04/30/19	200.7/200.8	0.0047	0.25	<0.002	0.0018	<0.006	0.3	<0.0025	0.27	0.0049	0.0036	0.0014	0.026
	09/06/18	200.7/200.8	0.0091	0.16	<0.002	0.0016	<0.006	0.095	<0.0025	0.22	<0.005	0.0068	0.0013	0.0066
	02/21/18	200.7/200.8	0.0064	0.14	<0.002	<0.006	<0.006	0.47	0.00028	0.16	0.0075	0.0037	0.00048	0.013
	10/24/17	200.7/200.8	0.0093	0.16	<0.002	0.0054	<0.006	0.64	<0.0025	0.31	0.014	<0.005	<0.0025	0.031
	03/30/17	200.7/200.8	0.015	0.22	<0.002	0.013	<0.006	1.1	<0.0025	0.34	0.026	<0.005	0.0013	0.017
	08/29/16	200.7/200.8	0.018	0.12	<0.002	0.012	<0.006	3	<0.0025	0.44	0.053	<0.005	0.0014	0.052
	03/02/16	200.7/200.8	0.0098	0.13	<0.002	0.0069	<0.006	0.63	0.00039	0.22	0.017	<0.005	0.0044	0.016
	09/01/15	200.7/200.8	0.0098	0.13	<0.002	0.012	<0.006	0.37	<0.0025	0.3	0.011	<0.005	0.0031	0.02
	03/24/15	200.7/200.8	<0.01	0.13	<0.002	0.017	<0.006	4	<0.2	0.37	<0.1	<0.005	<0.01	0.086
	11/12/14	200.7/200.8	0.011	0.076	<0.002	0.0099	<0.006	1.4	<0.01	0.21	<0.01	<0.005	<0.01	0.056
	03/05/14	200.7/200.8	<0.01	0.13	<0.005	0.016	<0.006	0.72	<0.01	0.38	0.042	<0.005	<0.01	0.01
	10/15/13	200.7/200.8	<0.01	0.085	<0.002	0.0071	<0.006	0.27	<0.005	0.19	0.011	<0.005	<0.01	0.017
	05/28/13	200.7/200.8	0.012	0.059	<0.01	<0.03	<0.03	3.2	<0.01	0.48	0.024	<0.025	<0.01	0.092
	11/06/12	200.7/200.8	0.01	0.034	<0.002	0.012	<0.006	1.2	<0.005	0.36	0.0041	<0.005	<0.001	0.045
	05/29/12	200.7/200.8	0.011	0.06	<0.002	<0.006	<0.006	0.46	<0.005	0.15	0.011	<0.005	<0.005	0.024
	11/01/11	200.7/200.8	0.0058	0.042	<0.002	0.0065	<0.006	1.1	<0.005	0.11	0.0057	<0.005	<0.002	0.044
	05/23/11	200.7/200.8	0.014	0.026	<0.01	<0.03	<0.03	1.7	<0.025	0.33	<0.25	<0.025	<0.005	<0.05
	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03	0.71	<0.025	0.18	<0.25	<0.025	<0.001	<0.25
	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03	2.2	<0.025	0.27	<0.25	<0.025	<0.001	<0.25
	<0.02		<0.02	0.057	<0.002	0.013	<0.006	9.7	<0.005	0.34	<0.25	<0.005	0.0046	0.12



8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
EP-3	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
	40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE	
	NMED Tap Water (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96	
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6	
	POND ID	DATE SAMPLED	METHOD												
	EP-3	11/20/19	200.7/200.8	0.0057	0.15	<0.002	<0.06	<0.06	6.8	<0.0025	0.35	0.0061	<0.05	0.0021	0.055
		04/30/19	200.7/200.8	0.0066	0.24	<0.002	0.0016	0.0039	0.33	<0.0025	0.34	0.0085	0.0044	0.0018	0.045
		09/06/18	200.7/200.8	0.01	0.15	<0.002	<0.006	<0.006	0.083	<0.0025	0.22	<0.005	0.0071	0.0011	0.0054
		02/21/18	200.7/200.8	0.0068	0.19	<0.002	<0.006	0.0038	0.44	0.00034	0.22	0.0081	0.0054	0.00066	<0.01
		10/24/17	200.7/200.8	0.011	0.16	<0.002	0.0053	<0.006	0.64	<0.0025	0.31	0.011	<0.005	<0.0025	0.024
		03/30/17	200.7/200.8	0.016	0.22	<0.002	0.0072	<0.006	0.69	<0.0025	0.35	0.028	<0.005	0.0013	0.016
		08/29/16	200.7/200.8	0.015	0.15	<0.002	0.012	<0.006	2.2	<0.0025	0.43	0.049	<0.005	0.0019	0.041
		03/02/16	200.7/200.8	0.011	0.16	<0.002	0.0085	<0.006	0.59	0.00054	0.36	0.021	<0.005	0.0037	0.0099
		09/01/15	200.7/200.8	0.013	0.19	<0.002	0.014	<0.006	0.21	<0.0025	0.27	0.014	<0.005	<0.0025	0.014
		03/24/15	200.7/200.8	<0.1	0.13	<0.002	0.0088	<0.006	0.9	<0.2	0.31	<0.1	<0.005	<0.01	0.055
		11/12/14	200.7/200.8	0.012	0.1	<0.002	0.0091	<0.006	1.6	<0.01	92	<0.01	<0.005	<0.01	0.016
		03/05/14	200.7/200.8	<0.01	0.13	<0.002	0.013	<0.006	0.65	<0.01	0.41	0.021	<0.005	<0.01	<0.01
		10/15/13	200.7/200.8	0.01	0.085	<0.002	0.0073	<0.006	0.2	<0.005	0.15	0.015	<0.05	<0.01	0.012
		05/28/13	200.7/200.8	0.011	0.088	<0.01	<0.03	<0.03	0.41	<0.01	0.26	0.013	<0.025	<0.01	0.072
		11/06/12	200.7/200.8	0.0081	0.04	<0.002	0.0065	<0.006	1	<0.005	0.52	0.0053	<0.005	0.0014	0.076
05/29/12		200.7/200.8	0.014	0.076	<0.002	<0.006	<0.006	0.22	<0.005	0.1	0.022	<0.005	<0.01	0.033	
11/01/11		200.7/200.8	0.0066	0.053	<0.002	<0.006	<0.006	1.3	<0.005	0.12	0.0056	<0.005	<0.005	0.03	
05/23/11		200.7/200.8	0.014	0.033	<0.002	0.024	<0.006	1.5	<0.005	0.34	<0.05	<0.005	<0.005	0.033	
11/16/10		6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.24	<0.025	0.15	<0.25	<0.025	<0.001	<0.25	
08/02/10		6010B	<0.1	0.12	<0.002	0.0093	<0.006	1.8	<0.005	0.37	<0.05	<0.005	<0.001	<0.05	
04/20/10		6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.88	<0.025	0.42	<0.25	<0.005	0.00258	<0.25	



8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS												
STANDARDS												
EP-4	WQCC 20 NMAC 6.2.3103 (DEC 2018)											
	40 CFR 141.62 MCL											
	NMED Tap Water (Rev 2. JUN 2019)											
	EPA RSL for Tap Water (NOV 2019)											
POND ID	DATE SAMPLED	METHOD										
EP-4	04/30/19	200.7/200.8										
	09/06/18	200.7/200.8										
	02/21/18	200.7/200.8										
	10/24/17	200.7/200.8										
	03/30/17	200.7/200.8										
	08/29/16	200.7/200.8										
	03/02/16	200.7/200.8										
	09/01/15	200.7/200.8										
	03/24/15	200.7/200.8										
	11/12/14	200.7/200.8										
	03/05/14	200.7/200.8										
	10/15/13	200.7/200.8										
	05/28/13	200.7/200.8										
	11/06/12	200.7/200.8										
	05/29/12	200.7/200.8										
	11/01/11	200.7/200.8										
	05/23/11	200.7/200.8										
	11/16/10	6010B										
	08/02/10	6010B										
	04/20/10	6010B										
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
	0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
	0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
	0.0064	0.24	<0.002	0.0017	0.0015	0.31	<0.0025	0.34	0.012	0.0046	0.0018	0.019
	0.012	0.15	<0.002	0.0016	<0.006	0.088	<0.0025	0.2	<0.005	0.0065	0.00092	0.0064
	0.009	0.22	<0.002	<0.006	0.0032	0.42	<0.005	0.27	0.0093	0.0072	<0.005	0.0057
	0.013	0.16	<0.002	0.006	<0.006	0.65	<0.0025	0.3	0.013	<0.005	0.0005	0.035
	0.015	0.22	<0.002	0.009	<0.006	0.61	<0.0025	0.34	0.029	<0.005	0.0011	0.035
	0.016	0.15	<0.002	0.013	<0.006	1.3	<0.0025	0.37	0.05	<0.005	0.0022	0.036
	0.019	0.15	<0.002	0.0088	<0.006	0.49	0.00059	0.43	0.02	<0.005	0.0035	0.018
	0.014	0.19	<0.002	0.013	<0.006	0.24	<0.0025	0.28	0.018	<0.005	0.0026	0.016
	0.022	0.12	<0.002	0.0079	<0.006	0.46	<0.2	0.4	0.038	<0.005	<0.01	<0.01
	0.012	0.11	<0.002	0.01	<0.006	1.3	0.0013	0.27	0.011	<0.005	0.0039	0.017
	<0.01	0.13	<0.002	0.012	<0.006	0.58	<0.01	0.43	0.021	<0.005	<0.01	<0.01
	0.012	0.084	<0.002	<0.006	<0.006	0.26	<0.005	0.15	0.017	<0.05	<0.01	0.013
	0.013	0.085	<0.01	<0.03	<0.03	0.31	<0.01	0.19	0.019	<0.025	<0.01	<0.05
	0.0076	0.068	<0.002	<0.006	<0.006	0.29	<0.005	0.59	<0.01	<0.005	<0.001	0.13
	0.017	0.06	<0.002	0.0067	<0.006	0.2	<0.005	0.061	0.024	<0.005	<0.005	0.036
	0.0086	0.073	<0.002	<0.006	<0.006	0.78	<0.005	0.2	0.0084	<0.005	<0.005	0.022
	0.017	0.067	<0.002	0.024	<0.006	0.19	<0.005	0.33	<0.05	<0.005	<0.005	0.019
	<0.1	<0.1	<0.01	<0.03	<0.03	0.22	<0.025	0.14	<0.25	<0.025	<0.001	<0.25
	<0.1	<0.1	<0.01	<0.03	<0.03	1	<0.025	0.33	<0.25	<0.025	0.002	<0.25
	<0.1	<0.1	<0.01	<0.03	<0.03	0.95	<0.025	0.41	<0.25	<0.005	0.00292	<0.25







8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS												
STANDARDS												
WQCC 20 NMAC 6.2.3103 (DEC 2018)	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
	0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE
NMED Tap Water (Rev 2. JUN 2019)	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (NOV 2019)	0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6
EP-6	0.017	0.24	<0.02	<0.06	0.014	0.45	<0.0025	0.62	0.0032	<0.05	0.0021	0.033
	0.013	0.2	<0.002	<0.006	<0.006	0.097	<0.0025	0.46	0.005	0.0071	0.0019	0.016
	0.022	0.15	<0.002	0.0042	<0.006	<0.02	<0.0025	0.13	<0.005	0.0076	0.0012	0.0036
	0.017	0.21	<0.002	0.005	<0.006	0.27	<0.005	0.52	0.015	0.0074	0.0018	<0.01
	0.021	0.23	<0.002	0.0091	<0.006	0.13	<0.01	0.47	0.017	<0.005	0.0024	0.069
	0.031	0.19	<0.02	<0.06	<0.06	<0.2	<0.0025	0.72	0.054	<0.05	0.0026	0.042
	0.028	0.19	<0.002	0.012	<0.006	0.046	<0.005	0.38	0.037	<0.005	0.0039	0.24
	0.02	0.16	<0.002	0.0099	<0.006	0.57	0.00059	0.46	0.019	<0.005	0.0037	0.015
	0.03	0.13	<0.01	0.014	<0.03	0.028	<0.005	0.33	0.035	<0.005	<0.005	0.014
	<0.2	0.12	<0.002	0.0079	<0.006	0.4	<0.2	0.39	<0.2	<0.005	<0.01	0.011
	0.027	0.14	<0.01	<0.03	<0.03	0.2	<0.02	0.53	0.025	<0.025	<0.02	<0.05
	0.015	0.11	<0.002	0.0091	<0.006	0.45	<0.01	0.6	0.024	<0.005	<0.01	0.011
	<0.05	0.098	<0.002	0.0086	<0.006	0.077	<0.005	0.22	<0.05	<0.05	<0.05	<0.01
	0.021	0.096	<0.01	<0.03	<0.03	<0.1	<0.01	0.15	0.02	<0.025	<0.01	0.069
	0.022	0.11	<0.02	<0.06	<0.06	0.053	<0.05	0.1	0.014	<0.05	<0.005	<0.1
	0.02	0.094	<0.002	0.011	<0.006	0.11	<0.005	0.41	0.017	<0.005	<0.01	0.019
	0.02	0.11	<0.002	0.014	<0.006	0.076	<0.005	0.19	0.011	<0.005	<0.01	0.011
	0.016	0.11	<0.01	<0.03	<0.03	0.13	<0.025	0.13	<0.25	<0.025	<0.005	<0.05
	<0.1	0.12	<0.01	<0.03	<0.03	0.18	<0.025	0.3	<0.25	<0.025	0.001	<0.25
	<0.1	<0.1	<0.01	<0.03	<0.03	0.033	<0.025	0.045	<0.25	<0.025	0.002	<0.25
	<0.02	0.068	<0.002	<0.006	<0.006	0.38	<0.005	0.43	<0.05	<0.005	0.00169	0.5







8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
	40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.03	NE	
	NMED Tap Water (Rev 2. JUN 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96	
	EPA RSL for Tap Water (NOV 2019)		0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.094	0.004	6	
	POND ID	DATE SAMPLED	METHOD												
	EP-8	11/20/19	200.7/200.8	0.32	0.22	<0.1	<0.3	0.15	<1.0	<0.05	4.3	0.054	<0.25	<0.05	<0.5
		04/29/19	200.7/200.8	0.11	0.19	<0.01	<0.03	0.014	<0.1	<0.01	0.45	0.014	0.019	0.005	0.019
		09/07/18	200.7/200.8	0.093	0.24	<0.01	0.011	<0.03	<0.02	<0.01	0.94	<0.05	0.022	0.003	<0.05
		02/23/18	200.7/200.8	0.1	0.23	<0.01	<0.3	<0.03	0.15	<0.025	0.45	0.099	<0.25	0.0054	<0.05
		10/24/17	200.7/200.8	0.11	0.26	<0.01	0.031	<0.03	<0.1	<0.025	1.1	<0.2	<0.025	0.0077	<0.05
		03/30/17	200.7/200.8	0.12	0.2	<0.02	0.017	<0.06	<0.2	<0.0041	0.13	0.31	<0.05	<0.025	0.071
		08/30/16	200.7/200.8	0.18	0.2	<0.01	0.014	<0.03	<0.1	<0.025	1.4	0.22	<0.025	0.0096	0.027
		09/01/15	200.7/200.8	0.15	0.17	<0.01	0.035	<0.03	<0.1	<0.05	0.38	0.18	<0.025	<0.05	0.051
		03/25/15	200.7/200.8	<0.2	0.15	<0.01	<0.03	<0.03	<0.1	<0.2	0.53	<0.2	<0.025	<0.01	<0.05
		11/12/14	200.7/200.8	0.11	0.17	<0.01	<0.03	<0.03	0.23	<0.02	0.77	<0.2	<0.025	<0.02	<0.05
		03/05/14	200.7/200.8	0.11	0.11	<0.01	<0.03	<0.03	0.14	<0.1	2.1	0.12	<0.025	<0.1	<0.05
		10/15/13	200.7/200.8	0.37	0.22	<0.01	0.039	<0.03	<0.1	0.064	18	0.47	<0.1	<0.05	<0.05
		05/28/13	200.7/200.8	0.11	0.12	<0.01	<0.03	<0.03	<0.1	<0.02	3	0.088	<0.025	<0.02	<0.05
		11/06/12	200.7/200.8	0.47	0.26	<0.04	<0.12	<0.12	<0.4	<0.1	36	<1.0	<0.1	0.0011	<0.2
05/29/12		200.7/200.8	0.16	0.18	<0.02	<0.06	<0.06	<0.2	<0.05	7.3	0.13	<0.05	<0.02	<0.1	
11/01/11		200.7/200.8	0.05	0.13	<0.01	<0.03	<0.03	<0.1	<0.025	1.1	0.03	<0.025	<0.02	<0.05	
05/23/11		200.7/200.8	0.38	0.25	<0.02	<0.06	<0.06	<0.1	<0.05	20	<0.5	<0.05	<0.05	<0.1	
11/16/10	6010B	<0.4	<0.4	<0.04	<0.12	<0.12	0.11	<0.1	9.1	<1.0	<0.1	0.003	1		
08/02/10	6010B	0.77	<0.4	<0.04	<0.12	<0.12	<0.2	<0.1	22	<1.0	<0.1	0.001	1		
04/20/10	6010B	<0.2	<0.2	<0.02	<0.06	<0.06	0.26	<0.05	10	<0.05	<0.05	0.00166	<0.5		







8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (Rev 2. JUN 2019)														
EPA RSL for Tap Water (NOV 2019)														
POND ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
EP-11	04/29/19	200.7/200.8	0.11	0.19	<0.01	<0.03	0.02	<0.1	<0.025	0.41	0.011	0.018	0.0059	0.032
	09/07/18	200.7/200.8	0.86	0.027	<0.01	0.047	<0.03	0.09	<0.1	12	<0.1	0.014	<0.1	0.021
	02/23/18	200.7/200.8	0.15	0.19	<0.02	<0.03	<0.06	0.2	<0.025	0.9	<0.2	0.027	0.0052	<0.05
	10/24/17	200.7/200.8	0.25	0.21	<0.02	0.058	<0.06	0.38	<0.05	2.3	<1	<0.05	0.011	<0.1
	03/30/17	200.7/200.8	0.15	0.2	<0.02	0.014	<0.060	<0.20	<0.025	0.37	0.27	<0.05	0.0053	0.055
	08/30/16	200.7/200.8	0.16	0.19	<0.01	0.016	<0.03	<0.1	<0.025	1.4	0.21	<0.025	0.0091	0.045
	03/02/16	200.7/200.8	0.076	0.2	<0.01	<0.03	<0.03	0.22	0.0023	0.42	0.088	<0.025	0.0057	0.028
	09/01/15	200.7/200.8	0.15	0.16	<0.01	0.042	<0.03	<0.1	<0.05	0.44	0.17	<0.025	<0.05	<0.05
	03/25/15	200.7/200.8	<0.2	0.15	<0.01	<0.03	<0.03	<0.2	<0.2	0.45	<0.2	<0.025	<0.01	<0.05
	11/12/14	200.7/200.8	0.1	0.16	<0.01	<0.03	<0.03	0.31	<0.02	1	<0.5	<0.025	<0.05	0.061
	03/05/14	200.7/200.8	0.04	0.074	<0.002	0.011	<0.006	0.48	<0.01	0.99	0.039	<0.025	<0.01	0.013
	10/15/13	200.7/200.8	<0.05	0.067	<0.002	0.0096	<0.006	0.21	<0.005	0.41	<0.05	<0.05	<0.05	<0.01
	05/28/13	200.7/200.8	0.04	0.068	<0.01	<0.03	<0.03	<0.1	<0.01	0.48	0.022	<0.025	<0.01	<0.05
	11/06/12	200.7/200.8	0.013	0.056	<0.002	<0.006	<0.006	0.79	<0.005	0.4	0.011	<0.005	0.0012	0.043
	05/29/11	200.7/200.8	0.03	0.081	<0.002	0.011	<0.006	0.16	<0.005	0.78	0.019	<0.005	<0.01	0.023
	11/01/11	200.7/200.8	0.008	0.068	<0.002	<0.006	<0.006	0.89	<0.005	0.19	0.0079	<0.005	<0.005	0.015
	05/23/11	200.7/200.8	0.055	0.087	<0.01	<0.03	<0.03	0.066	<0.025	0.89	<0.25	<0.025	<0.01	<0.05
	11/16/10	6010B	<0.1	0.12	<0.01	<0.03	<0.03	0.48	<0.025	0.64	<0.25	<0.025	0.002	<0.25
	04/20/10	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.15	<0.025	1.6	<0.25	<0.025	0.00211	<0.25







8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

PARAMETERS												
STANDARDS												
WQCC 20 NMAC 6.2.3103 (DEC 2018)												
40 CFR 141.62 MCL												
NMED Tap Water (Rev 2. JUN 2019)												
EPA RSL for Tap Water (NOV 2019)												
POND ID	DATE SAMPLED	METHOD										
EP-12B	11/21/19	200.7/200.8										
	04/29/19	200.7/200.8										
	09/07/18	200.7/200.8										
	02/22/18	200.7/200.8										
	10/24/17	200.7/200.8										
	03/30/17	200.7/200.8										
	08/30/16	200.7/200.8										
	03/02/16	200.7/200.8										
	09/01/15	200.7/200.8										
	03/25/15	200.7/200.8										
	11/12/14	200.7/200.8										
	03/05/14	200.7/200.8										
	10/15/13	200.7/200.8										
	05/28/13	200.7/200.8										
	11/06/12	200.7/200.8										
	05/29/12	200.7/200.8										
	11/01/11	200.7/200.8										
	05/23/11	200.7/200.8										
	11/16/10	6010B										
	04/20/10	6010B										

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Pond 6 is combined with ponds 4 and 5 as one pond.











8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compounds Analytical Result Summary

PARAMETERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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1,2,4-Trimethyl benzene (mg/L)		1,3,5-Trimethyl benzene (mg/L)		Naphthalene (mg/L)		1-Methyl naphthalene (mg/L)		2-Methyl naphthalene (mg/L)		Acetone (mg/L)		Bromo methane (mg/L)		2-Butanone (mg/L)		Carbon disulfide (mg/L)		Chloroform (mg/L)		Chloro methane (mg/L)		Isopropyl benzene (mg/L)		4-Isopropyl toluene (mg/L)		n-Butyl benzene (mg/L)		n-Propyl benzene (mg/L)		sec-Butyl benzene (mg/L)		4-Methylene 2-pentanone (mg/L)		Methylene Chloride (mg/L)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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EPA RSL for Tap Water (NOV 2019)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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EP-5	04/30/19	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.1	<0.0017	<0.01	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.0



8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compounds Analytical Result Summary

PARAMETERS																					
STANDARDS																					
WQCC 20 NMAC 6.2.3103 (DEC 2018)																					
40 CFR 141.61 MCL																					
NMED Tap Water (Rev 2. JUN 2019)																					
EPA RSL for Tap Water (NOV 2019)																					
POND ID	DATE SAMPLED	METHOD	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	4-Methylene 2-pentanone (mg/L)	Methylene Chloride (mg/L)	
EP-7	11/20/19	8260B	0.00055	<0.001	<0.002	<0.004	<0.004	0.058		<0.01	<0.01	<0.001	0.0009			<0.003	NE	NE	NE	0.005	
	04/29/19	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.016		<0.1	<0.1	<0.01	0.0047			<0.03	NE	NE	NE	0.005	
	09/07/18	8260B	0.00047	<0.001	<0.002	<0.004	<0.004	0.027		0.0017	<0.01	<0.001	0.0021			<0.003	NE	NE	NE	0.005	
	02/23/18	8260B	0.00044	<0.001	<0.002	<0.004	<0.004	0.028		0.0022	0.00041	<0.001	0.0024			<0.003	NE	NE	NE	1.24	
	10/24/17	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05		<0.05	<0.05	<0.005	<0.015			<0.015	NE	NE	NE	0.1180	
	03/30/17	8260B	0.0023	<0.005	<0.01	<0.02	<0.02	0.0095		0.016	<0.05	<0.005	<0.015			<0.015	NE	0.66	2	6.3	
	08/30/16	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.011	
	03/02/16	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.018		<0.05	<0.05	<0.005	0.0063			<0.03	NE	NE	NE	0.005	
	09/01/15	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	03/25/15	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/12/14	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	03/05/14	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	10/15/13	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/28/13	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/06/12	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/29/12	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/01/11	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/23/11	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	08/02/10	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.004	0.061		<0.01	<0.01	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
	04/20/10	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.004	0.023		<0.01	<0.01	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	<0.001
EP-8	11/20/19	8260B	0.0005	<0.001	<0.002	<0.004	<0.004	0.045		<0.01	<0.01	<0.001	0.0013			<0.003	NE	NE	NE	0.005	
	04/29/19	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	0.0042			<0.03	NE	NE	NE	0.005	
	09/07/18	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.0083		<0.01	<0.01	<0.001	0.0012			<0.003	NE	NE	NE	0.005	
	02/23/18	8260B	0.00032	<0.001	<0.002	<0.004	<0.004	0.036		0.0028	0.0019	<0.001	0.00087			<0.003	NE	NE	NE	0.005	
	10/24/17	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05		<0.05	<0.05	<0.005	<0.015			<0.015	NE	NE	NE	0.005	
	03/30/17	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.012		0.017	<0.05	<0.005	<0.015			<0.015	NE	NE	NE	0.005	
	08/30/16	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	09/01/15	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	03/25/15	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/12/14	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	03/05/14	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	10/15/13	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/28/13	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/06/12	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/29/12	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	11/01/11	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	05/23/11	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.03	NE	NE	NE	0.005	
	08/02/10	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.004	0.066		<0.01	<0.01	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	
	04/20/10	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.004	0.038		<0.01	<0.01	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001	







8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compounds Analytical Result Summary

PARAMETERS																																			
STANDARDS																																			
1,2,4-Trimethyl benzene (mg/L)		1,3,5-Trimethyl benzene (mg/L)		Naphthalene (mg/L)		1-Methyl naphthalene (mg/L)		2-Methyl naphthalene (mg/L)		Acetone (mg/L)		Bromo methane (mg/L)		2-Butanone (mg/L)		Carbon disulfide (mg/L)		Chloroform (mg/L)		Chloro methane (mg/L)		Isopropyl benzene (mg/L)		4-Isopropyl toluene (mg/L)		n-Butyl benzene (mg/L)		n-Propyl benzene (mg/L)		sec-Butyl benzene (mg/L)		4-Methylene 2-pentanone (mg/L)		Methylene Chloride (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		NE		0.03		NE		NE		NE		NE		NE		NE		0.1		NE		NE		NE		NE		NE		NE		NE		0.005	
40 CFR 141.61 MCL		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		NE		0.005	
NMED Tap Water (Rev 2. JUN 2019)		NE		0.00165		0.0114		0.035		14.06		0.00754		5.56		0.81		0.00229		0.0203		0.447		NE		NE		NE		NE		1.24		0.1180	
EPA RSL for Tap Water (NOV 2019)		0.056		0.06		0.00017		0.036		14		0.0075		5.6		0.81		0.00022		0.19		0.45		NE		1		0.66		2		6.3		0.011	
POND ID		DATE SAMPLED		METHOD																															
EP-12A		11/21/19	8260B	<0.005	<0.01	<0.02	0.14	<0.015	0.015	0.032	<0.005	<0.015			0.015	0.032	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.05		
		09/07/18	8260B	<0.001	<0.002	<0.004	0.098	<0.003	0.0083	0.00077	<0.001	0.0014			0.0083	0.00077	<0.001	0.0014			0.0014			<0.003			<0.003			<0.003			0.0016		
		02/23/18	8260B	<0.001	<0.002	<0.004	0.019	<0.003	0.0037	0.011	<0.001	<0.003			0.0037	0.011	<0.001	<0.003			<0.003			<0.001			<0.001			<0.001			<0.003		
		10/24/17	8260B	<0.005	<0.01	<0.02	<0.05	<0.015	<0.05	<0.05	<0.005	<0.015			<0.05	<0.05	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.003		
		03/30/17	8260B	<0.005	<0.01	<0.02	0.011	<0.015	<0.05	<0.05	<0.005	<0.015			<0.05	<0.05	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.003		
		08/30/16	8260B	<0.01	<0.02	<0.04	<0.1	<0.03	<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		03/02/16	8260B	<0.005	<0.01	<0.02	0.0065	0.04	0.0024	0.055	<0.005	<0.015			0.0024	0.055	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.003		
		09/01/15	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		03/25/15	8260B	<0.10	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		11/12/14	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		03/05/14	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		10/15/13	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		05/28/13	8260B	<0.01	<0.02	<0.04	0.17		<0.1	0.14	<0.01	<0.03			<0.1	0.14	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		11/06/12	8260B	<0.01	<0.02	<0.04	0.15		<0.1	0.61	<0.01	<0.03			<0.1	0.61	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		05/29/12	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		11/01/11	8260B	<0.01	<0.02	<0.04	0.16		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		05/23/11	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	0.1	<0.01	<0.03			<0.1	0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.003		
		04/20/11	8260B	<0.001	<0.002	<0.004	0.13		0.011	0.034	<0.001	<0.001			0.011	0.034	<0.001	<0.001			<0.001			<0.001			<0.001			<0.001			<0.001		
EP-12B		11/21/19	8260B	<0.005	<0.01	<0.02	<0.05	<0.015	0.017	0.031	<0.005	<0.015			0.017	0.031	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.005		
		04/29/19	8260B	<0.01	<0.02	<0.04	<0.1	<0.03	<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		09/07/18	8260B	<0.001	<0.002	<0.004	0.051	<0.003	0.0043	0.023	<0.001	<0.003			0.0043	0.023	<0.001	<0.003			<0.003			<0.003			<0.003			<0.003			<0.001		
		02/22/18	8260B	0.00087	0.00068	0.0013	0.11	<0.003	0.034	0.029	<0.001	<0.003			0.034	0.029	<0.001	<0.003			<0.003			0.0002			0.00018			0.0002			0.00018		
		10/24/17	8260B	<0.005	<0.01	<0.02	0.13	<0.015	<0.05	0.012	<0.005	<0.015			<0.05	0.012	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.005		
		03/30/17	8260B	0.0055	<0.01	<0.02	0.087	0.0091	0.025	0.023	<0.005	<0.015			0.025	0.023	<0.005	<0.015			<0.015			<0.015			<0.015			<0.015			<0.005		
		08/30/16	8260B	0.0017	<0.02	<0.04	0.17	<0.03	<0.1	0.016	<0.01	<0.03			<0.1	0.016	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		03/02/16	8260B	<0.005	<0.01	<0.02	0.031	0.038	0.0031	0.063	<0.01	0.0016			0.0031	0.063	<0.01	0.0016			0.0016			<0.015			<0.015			<0.015			<0.005		
		09/01/15	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		03/25/15	8260B	<0.01	<0.02	<0.04	0.13		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		11/12/14	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		03/05/14	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		10/15/13	8260B	<0.01	<0.02	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		05/28/13	8260B	<0.01	<0.02	<0.04	0.28		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		10/15/13	8260B	<0.01	<0.02	<0.04	0.53		<0.1	<0.1	<0.01	<0.03			<0.1	<0.1	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		05/28/13	8260B	<0.01	<0.02	<0.04	0.24		<0.1	0.47	<0.01	<0.03			<0.1	0.47	<0.01	<0.03			<0.03			<0.03			<0.03			<0.03			<0.005		
		11/06/12	8260B	<0.01	<0.02	<0.04	0.1		<0.1	<0.1	<0.01	<0.03			<																				



8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compounds Analytical Result Summary

STANDARDS		PARAMETERS																	
		1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	4-Methylene 2-pentanone (mg/L)	Methylene Chloride (mg/L)
	WQCC 20 NMAC 6.2.3103 (DEC 2018)	NE	NE	0.03	NE	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	NE	NE	0.005
	40 CFR 141.61 MCL	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005
	NMED Tap Water (Rev 2. JUN 2019)	NE	NE	0.00165	0.0114	0.035	14.06	0.00754	5.56	0.81	0.00229	0.447	NE	NE	NE	NE	1.24	0.1180	
	EPA RSL for Tap Water (NOV 2019)	0.056	0.06	0.00017	0.0011	0.036	14	0.0075	5.6	0.81	0.00022	0.45	NE	1	0.66	2	6.3	0.011	
POND ID	DATE SAMPLED	METHOD																	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Pond 6 is combined with ponds 4 and 5 as one pond.



8.15.5 EVAPORATION PONDS (EP-1 thru EP-12B)  
Semi-Volatile Organic Compounds Analytical Result Summary

STANDARDS			PARAMETERS																										
			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis (2-ethyl hexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluor anthene (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphtha lene (mg/L)	2-Nitro phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	Benz (a) anthra cene (mg/L)	Benzo (a) pyrene (mg/L)	Benzo (b) fluor anthene (mg/L)	Benzo (g,h,i) perylene (mg/L)	Indeno (1,2,3-cd) pyrene (mg/L)		
			WQCC 20 NMAC 6.2.3103 (DEC 2018)	40 CFR 141.61 MCL	NMED Tap Water (Rev 2. JUN 2019)	EPA RSL for Tap Water (NOV 2019)																							
			POND ID	SAMPLE DATE	METHOD																								
EP-1	11/12/14	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.062	<0.05	<0.05	<0.05	<0.05	<0.05	0.005	NE	NE	NE	0.0002	NE	NE		
	03/05/14	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	NE	NE	NE	0.0002	NE	NE	NE		
	10/15/13	8270C	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	05/28/13	8270C	<0.03	<0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		
	11/06/12	8270C	0.072	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	0.41	0.7	<0.05	<0.05	<0.05	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	05/29/12	8270C	0.07	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.43	<0.05	<0.05	<0.05	<0.05	0.31	0.7	<0.05	<0.05	0.051	1.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	11/01/11	8270C	0.82	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	<0.05	<0.05	2.5	5.0	<0.05	<0.05	<0.05	9.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	05/23/11	8270C	0.42	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.36	<0.05	<0.05	<0.05	<0.05	2.0	3.6	<0.05	<0.05	<0.05	6.4	<0.5	<0.05	0.00012	0.00025	0.000343	0.000343	0.000343		
	08/02/10	8270C	0.6	<0.02	<0.01	<0.01	0.017	0.025	0.2	NE	0.36	0.8	0.29	0.036	0.93	4.2	0.025	<0.1	0.11	8.5	0.012	0.00003	0.000025	0.0025	NE	0.00025	NE	0.00025	
	04/20/10	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.063	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.091	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
EP-2	11/21/19	8270D	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00266	<0.0005	<0.0005	0.00021	0.289	0.389	0.00035	<0.0005	<0.0005	0.192	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
	04/30/19	8270C	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.05	<0.05	<0.05	<0.05	<0.05	0.064	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	09/06/18	8270C	<0.05	0.062	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	02/21/18	8270C	0.04	0.072	<0.1	<0.1	<0.1	<0.05	<0.05	0.038	<0.05	<0.05	<0.1	0.11	0.29	<0.1	<0.1	<0.1	0.46	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	10/24/17	8270C	<0.05	0.044	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.031	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	03/30/17	8270C	<0.05	0.051	<0.05	0.039	<0.05	<0.05	<0.05	0.026	<0.05	<0.05	<0.05	<0.05	0.036	<0.01	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	08/29/16	8270C	<0.05	0.041	<0.05	0.015	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.094	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/02/16	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	0.064	<0.01	<0.01	0.22	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	09/01/15	8270C	<0.1	<0.2	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	11/12/14	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.35	<0.01	<0.01	0.058	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
EP-3	03/05/14	8270C	0.044	0.097	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	<0.01	<0.01	<0.01	0.14	0.35	<0.01	<0.01	0.87	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	10/15/13	8270C	<0.01	0.057	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	0.082	0.2	<0.01	<0.01	0.42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	05/28/13	8270C	0.16	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	0.38	<0.02	<0.02	<0.02	2.2	4.3	<0.02	<0.02	7.4	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	11/06/12	8270C	0.11	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	0.92	1.3	<0.05	<0.05	2.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	05/29/12	8270C	0.11	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.05	0.58	0.81	<0.05	<0.05	1.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	11/01/11	8270C	0.25	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	<0.05	1.1	2.0	<0.05	<0.05	3.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	05/23/11	8270C	0.27	<0.02	0.02	0.013	<0.01	<0.01	0.18	<0.01	<0.01	<0.01	<0.01	1.2	2.5	<0.01	<0.01	2.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	08/02/10	8270C	0.48	<0.02	0.011	<0.05	0.01	0.025	0.24	<0.05	0.24	<0.05	0.089	1.5	2.1	0.027	<0.01	3.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		















8.15.5 EVAPORATION PONDS (EP-1 thru EP-12B)  
Semi-Volatile Organic Compounds Analytical Result Summary

STANDARDS		PARAMETERS																								
		Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis (2-ethyl hexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluor anthene (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphtha lene (mg/L)	2-Nitro phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	Benz (a) anthra cene (mg/L)	Benzo (a) pyrene (mg/L)	Benzo (b) fluor anthene (mg/L)	Benzo (g,h,i) perylene (mg/L)	Indeno (1,2,3-cd) pyrene (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	NE	0.005	NE	NE	NE	0.0002	NE	NE	NE
40 CFR 141.61 MCL		NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.0002	NE	NE	NE
NMED Tap Water (Rev 2. JUN 2019)		NE	NE	NE	0.0556	NE	0.0343	NE	0.612	0.354	0.802	0.288	0.035	NE	NE	0.00165	NE	0.17	5.76	0.117	NE	0.00012	0.00025	0.000343	NE	0.000343
EPA RSL for Tap Water (NOV 2019)		0.13	75	2	0.056	NE	0.025	0.2	NE	0.36	0.8	0.29	0.036	0.93	0.93	0.00017	NE	NE	5.8	0.12	0.02	0.00003	0.000025	0.00025	NE	0.00025
POND ID	SAMPLE DATE	METHOD																								

DEFINITIONS

NE = Not established  
NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table







**8.16 STP-1 TO EP-2 (EP-2 INLET)**  
**BTEX, MTBE, DRO/GRO/MRO and TDS Analytical Result Summary**

PARAMETERS											
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	TDS (mg/L)	TSS <sup>3</sup> (mg/L)	
WQCC 20NMAC 6.2.3103 (DECEMBER 2018)	0.005	1	0.7	0.62	0.1	NE	NE	NE	1000	NE	NE
40 CFR 141.61 MCL	0.005	1	0.7	10	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (Rev 2. JUNE 2019)	0.00455	1.09	0.0149	0.193	0.143	NE	NE	NE	NE	NE	NE
EPA RSL TAP WATER (NOVEMBER 2019)	0.0046	1.1	0.0015	0.19	0.14	NE	NE	NE	NE	NE	NE
NMED SSG (JUNE 2019)	NE	NE	NE	NE	NE	0.0167	0.0101	0.0858	NE	NE	NE
STP-1 TO EP-2 (EP-2 Inlet)	0.022	0.013	<0.01	<0.015	<0.01	<0.4	<0.5	<2.5	3140	69	
	<0.02	<0.02	<0.02	<0.03	<0.02	2.1	<1.0	<5.0	4350	36	
	0.015	0.0089	0.00028	0.0017	<0.001	1.2	0.072	<5.0	3550		
	0.0013	0.0011	<0.005	<0.0075	<0.005	14	0.14	5.4	3220		
	<0.01	<0.01	<0.01	<0.015	<0.01	2.7	0.29	<5.0	2730		
	0.0026	0.0018	<0.01	0.0058	<0.01	10	0.51	8.7	3630		
	<0.01	0.0023	0.0013	0.0071	<0.01	61	115	32	2380		
	0.0071	0.002	<0.01	<0.015	<0.01	3.8	0.24	<5.0	2550		
	0.0026	0.0014	<0.01	<0.015	<0.01	30	<0.25	<5.0	3520		
	0.00071	<0.01	<0.01	<0.015	<0.01	1.5	<0.25	<5.0	3680		
	0.0019	0.0022	<0.005	0.0035	<0.005	11	1.2	<5.0	3760		
	<0.01	<0.01	<0.01	<0.015	<0.01	0.95	<0.5	<5.0	4810		
	<0.01	<0.01	<0.01	<0.015	<0.01	5.1	0.22	<5.0	5100		
	<0.005	<0.005	<0.005	<0.0075	<0.005	2	<0.25	<5.0	4400		
	<0.002	<0.002	<0.002	<0.003	<0.002	2.3	0.13	<5.0	2420		
	0.018	<0.002	<0.002	<0.003	<0.002	2.4	<0.5	<5.0	2590		
	0.033	0.013	<0.01	<0.015	<0.01	3.3	<0.5	<5.0	2340		
	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<0.05	<5.0	3720		
	<0.005	0.0063	<0.005	<0.0075	<0.005	39	1.7	6.9	6730		
	<0.005	<0.005	<0.005	<0.0075	<0.005	21	0.83		4120		

**DEFINITIONS**

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

**NOTES**

1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.

2) Switched to quarterly per NMED directive "Approval with Modifications", dated May 18, 2016.



**8.16.1 STP-1 TO EP-2 (EP-2 INLET)**  
**BOD/COD Analytical Result Summary**

STANDARDS			PARAMETERS	
			BOD (mg/L)	COD (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<30	<125
SAMPLE ID	DATE SAMPLED	METHOD		
STP-1 TO EP-2 (EP-2 Inlet)	11/21/19	SM5210B/410.4	1600	2420
	05/29/19	SM5210B/410.4	1100	1590
	02/07/19	SM5210B/410.4	150	495
	11/08/18	SM5210B/5220C	>2697.6	8080
	08/31/18	SM5210B/5220C	1500	1890
	05/06/18	SM5210B/5220C	770	1300
	02/12/18	SM5210B/5220C	780	1360
	12/12/17	SM5210B/5220C	1400	2100
	09/07/17	SM5210B/5220C	640	1100
	06/02/17	SM5210B/5220C	1200	1400
	03/30/17	SM5210B/5220C	470	1300
	11/17/16	SM5210B/5220C	1000	1620
	08/30/16	SM5210B/5220C	310	661
	06/08/16	SM5210B/5220C	160	408
	08/24/15	SM5210B/5220C	380	80.6
	11/12/14	SM5210B/5220C	630	1300
	09/10/14	SM5210B/5220C	270	1500
	09/05/13	SM5210B/5220C	670	1200
	08/21/12 <sup>1</sup>	SM5210B/5220C	<2.0	<10.0
	10/31/11	SM5210B/5220C	410	1520
	07/21/10	SM5210B/5220C	1400	3200
	06/18/09	SM5210B/5220C	191	1149
	08/22/08	SM5210B/5220C	348	1540
	03/26/08	SM5210B/5220C	649	1430
	03/20/08	SM5210B/5220C	344	829
	03/11/08	SM5210B/5220C	651	1150
	03/06/08	SM5210B/5220C	947	1520
	02/28/08	SM5210B/5220C	46.1	2440
	02/21/08	SM5210B/5220C	>394	1950
	02/14/08	SM5210B/5220C	570	2290
	02/07/08	SM5210B/5220C	671	2570
	01/31/08	SM5210B/5220C	414	1290
	01/25/08	SM5210B/5220C	520	1200
	01/18/08	SM5210B/5220C	462	1460
	01/11/08	SM5210B/5220C	449	1350

**DEFINITIONS**

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

**NOTES**

1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.



8.16.2 STP-1 TO EP-2 (EP-2 INLET)

Volatile Organic Compounds Analytical Result Summary

PARAMETERS												
STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromomethane (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Methylene Chloride (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	0.03	NE	NE	NE	NE	NE	NE	0.005
40 CFR 141.61 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005
NMED TAP WATER (Rev 2. JUNE 2019)			NE	NE	0.00165	0.0114	0.035	14.06	0.00754	5.56	0.81	0.1180
EPA RSL TAP WATER (NOVEMBER 2019)			0.056	0.06	0.00017	0.0011	0.036	14	0.0075	5.6	0.81	0.011
SAMPLE ID	DATE SAMPLED	METHOD										
STP-1 TO EP-2	11/21/19	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	0.016	0.047	<0.1	<0.03
	05/29/19	8260B	<0.02	<0.02	<0.04	<0.08	<0.08	0.76	<0.06	0.046	<0.2	<0.06
	02/07/19	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.53	<0.003	0.016	0.0012	<0.003
	11/08/18	8260B	<0.005	<0.005	<0.01	<0.002	<0.002	<0.05	0.0019	0.92	<0.05	<0.015
	08/31/18	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	1.2	<0.03	0.17	<0.1	<0.03
	05/06/18	8260B	0.0031	<0.01	<0.02	0.0053	0.0057	1.4	<0.03	<0.1	<0.1	<0.03
	02/12/18	8260B	0.0029	0.0013	0.0062	0.028	0.025	1.1	<0.03	<0.1	<0.1	<0.03
	12/12/17	8260B		<0.01	<0.02	<0.04		1.6		0.054	<0.1	<0.03
	09/07/17	8260B/8270C		<0.01	<0.02	<0.04		1.1		<0.1	<0.1	<0.03
	06/02/17	8260B		<0.01	0.0018	0.0057		1.6		0.14	0.012	0.0019
	03/30/17	8260B		<0.01				1.2		0.058	0.02	
	11/17/16	8260B		<0.01				2.4		0.076	0.013	
	08/30/16	8260B/8270C		<0.01				1.1		<0.1	<0.1	
	06/08/16 <sup>1</sup>	8260B		<0.005				0.87		0.024	0.039	
	08/24/15	8260B		<0.01				0.25		<0.02	<0.02	
	09/10/14	8260B/8270C		0.022				1.3		0.16	0.058	
	09/05/13	8260B						2.2		0.26	<0.1	
	08/21/12 <sup>1</sup>	8260B						<0.01		<0.01	<0.01	
	10/31/11	8260B						0.86		0.14	<0.05	
	07/21/10	8260B						0.49		<0.05	<0.05	



8.16.2 STP-1 TO EP-2 (EP-2 INLET)  
Volatile Organic Compounds Analytical Result Summary

DEFINITIONS

NA = Not analyzed NE = Not established  
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.  
a) Human Health Standards; b) Other Standards for Domestic Water  
40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants  
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1  
EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.



8.16.3 STP-1 TO EP-2 (EP-2 INLET)

Total Metals Analytical Result Summary

PARAMETERS															
STANDARDS	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)			
	0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.002	0.03	10.0			
	0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE			
	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0000626	0.0592	5.96			
	0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.00063	0.004	6			
STP-1 TO EP-2 (EP-2 Inlet)	SAMPLE ID	DATE SAMPLED	METHOD												
		11/21/19	200.7/200.8	0.009	0.15	<0.002	0.011	0.0097	0.011	<0.0025	0.15	0.003	<0.0002	0.0017	0.039
		05/29/19	200.7/200.8	0.0082	0.26	<0.01	<0.03	<0.0025	0.0055	<0.0002	0.00065	<0.05	<0.0002	0.00065	<0.05
		02/07/19	200.7/200.8	0.0055	0.28	<0.002	0.013	0.0021	0.013	<0.005	0.00014	0.0057	0.00014	0.0057	0.018
		11/08/18	200.7/200.8	0.015	0.18	<0.002	0.0074	0.0056	0.0074	0.0012	0.0097	0.0056	0.00049	0.0056	0.051
		08/31/18	200.7/200.8	0.0087	0.18	<0.002	0.012	0.0025	0.012	0.0003	0.0084	0.0003	0.000095	0.0003	0.026
		11/12/14	200.7/200.8	0.011	0.071	<0.002	0.013	0.013	0.0066	<0.001	<0.025	0.0022	<0.0002	0.0022	0.044
		09/10/14	200.7/200.8	0.014	0.098	<0.002	<0.006	0.017	<0.006	<0.001	0.021	0.0045	<0.0002	0.0045	0.12

NA = Not analyzed NE = Not established

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

1) Method 200.7/200.8 analysis requested as part of the annual sampling



8.16.4 STP-1 TO EP-2 (EP-2 INLET)

Dissolved Metals Aanalytical Result Summary

PARAMETERS													
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1.0	1.0	0.015	0.2	0.05	0.03	10.0
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	0.03	NE
NMED TAP WATER (Rev 2. JUNE 2019)			0.000513	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL TAP WATER (NOVEMBER 2019)			0.000052	3.8	0.0092	22	0.8	14	0.015	0.43	0.1	0.004	6
SAMPLE ID	DATE SAMPLED	METHOD											
STP-1 TO EP-2 (EP-2 Inlet)	11/21/19	200.7/200.8	0.007	0.14	<0.002	0.0084	0.0047	2.8	<0.0025	0.15	0.0051	0.00069	0.049
	05/29/19	200.7/200.8	0.0069	0.25	<0.01	<0.03	<0.03	1.8	<0.005	0.22	0.0084	0.00042	0.033
	02/07/19	200.7/200.8	0.0074	0.26	<0.01	<0.03	<0.03	0.59	<0.005	0.2	0.011	0.0055	0.025
	11/08/18	200.7/200.8	0.012	0.13	<0.002	0.0042	<0.006	0.49	<0.0025	0.2	0.013	0.004	0.04
	08/31/18	200.7/200.8	0.0075	0.15	<0.002	0.0023	<0.006	0.17	<0.0025	0.36	0.014	<0.0025	0.017
	09/10/14	200.7/200.8	0.011	0.087	<0.002	0.018	<0.006	3.5	<0.001	0.18	0.022	0.0028	0.087

DEFINITIONS

NA = Not analyzed NE = Not established

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-1	02/24/16	8260B	9.5	1.8	0.85	1	0.33
	11/04/15	8260B	10	1.4	0.79	1.2	0.39
	08/21/15	8260B	9.1	1	0.7	0.87	0.44
	06/09/15	8260B	9.3	1.5	0.74	1.8	0.41
	03/11/15	8260B	9.3	2	0.74	1.9	0.37
	06/06/14	8260B	8.7	7.1	0.92	4.3	0.42
MKTF-2	11/19/19	8260B	0.36	0.003	0.046	<0.0075	0.023
	08/23/19	8260B	0.99	0.012	0.078	<0.03	0.051
	05/06/19	8260B	0.95	0.019	0.043	0.11	0.049
	03/28/19	8260B	0.62	0.016	0.01	0.13	0.047
	11/28/18	8260B	5.5	0.082	0.51	0.17	0.099
	08/20/18	8260B	2.5	0.031	0.14	0.031	0.1
	05/01/18	8260B	2.9	0.039	0.24	0.12	0.097
	02/06/18	8260B	2.6	0.049	0.25	0.089	0.11
	11/20/17	8260B	2.9	0.05	0.28	0.069	0.13
	10/03/17	8260B	2.7	0.028	0.15	0.037	0.13
	03/16/17	8260B	4	0.056	0.51	0.23	0.15
	10/28/16	8260B	1.6	0.02	0.095	0.0099	0.15
	09/07/16	8260B	1.8	0.017	0.16	0.028	0.11
	06/10/16	8260B	1.2	0.026	0.21	0.16	0.087
	02/24/16	8260B	0.11	0.00095	0.0011	<0.0075	0.036
	11/04/15	8260B	0.44	0.013	0.072	0.0063	0.058
	08/21/15	8260B	0.37	0.0056	0.011	0.0033	0.044
	06/09/15	8260B	0.47	0.011	0.062	0.039	0.037
	03/11/15	8260B	0.2	<0.002	0.0041	0.0076	0.044
	11/14/14	8260B	0.2	0.0022	0.0029	0.0016	0.059
	09/18/14	8260B	2.1	0.044	0.34	<0.0075	0.1
	06/06/14	8260B	0.23	0.0036	0.022	0.034	0.042
	04/08/14	8260B	0.11	<0.002	0.0035	0.008	0.036
	10/28/13	8021B	0.69	<0.02	0.055	0.16	<0.05



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-4	10/30/19	8260B	0.93	0.012	0.71	0.74	1.8
	08/21/19	8260B	0.53	0.0091	0.42	0.44	1.6
	05/13/19	8260B	0.77	0.013	0.62	0.73	1.7
	03/26/19	8260B	0.78	0.014	0.62	0.74	1.6
	11/20/18	8260B	1.1	0.011	0.61	0.65	2.2
	09/04/18	8260B	1.1	0.014	0.7	0.86	1.8
	05/02/18	8260B	1.1	0.016	0.74	0.89	2.3
	02/14/18	8260B	0.9	0.014	0.6	0.71	2
	11/28/17	8260B	1.2	0.019	0.82	1.1	2.3
	09/26/17	8260B	1.1	0.019	0.82	1.1	2.3
	06/08/17	8260B	0.92	0.016	0.59	0.89	2
	03/02/17	8260B	0.98	0.015	0.68	0.88	2.5
	11/02/16	8260B	0.88	0.018	0.64	0.85	2.1
	09/11/16	8260B	0.88	0.015	0.67	0.76	2.4
	06/09/16	8260B	0.63	0.015	0.58	0.72	1.8
	02/29/16	8260B	0.8	0.017	0.73	0.8	2.2
	11/03/15	8260B	0.38	0.015	0.7	0.78	1.5
	08/18/15	8260B	0.32	0.011	0.43	0.55	1.4
	06/04/15	8260B	0.31	0.013	0.45	0.56	1.3
	03/16/15	8260B	0.22	<0.01	0.26	0.34	1.2
	11/13/14	8260B	0.18	<0.01	0.28	0.26	1.4
	09/15/14	8260B	0.15	<0.005	0.14	0.14	1.4
	06/04/14	8260B	0.67	0.019	0.57	0.68	1.8
	04/11/14	8260B	1	0.025	0.8	1	2.4
MKTF-9	11/18/19	8260B	3.7	0.014	0.23	0.069	0.45
	08/28/19	8260B	3.5	0.021	0.27	0.098	0.42
	05/13/19	8260B	3.2	0.025	0.28	0.095	0.31
	03/26/19	8260B	2.2	0.019	0.22	0.098	0.24
	11/28/18	8260B	3.3	0.02	0.19	0.073	0.56
	09/04/18	8260B	2.7	0.019	0.25	0.084	0.43
	05/02/18	8260B	2.8	0.025	0.28	0.098	0.49
	02/14/18	8206B	2.7	0.024	0.25	0.084	0.48
	11/28/17	8260B	3.2	0.027	0.26	0.086	0.51
	09/28/17	8260B	3	0.03	0.3	0.097	0.53
	06/12/17	8260B	3	0.032	0.3	0.086	0.68
	03/15/17	8260B	2.4	0.032	0.3	0.083	0.61
	11/02/16	8260B	1.6	0.026	0.21	0.052	0.5
	09/11/16	8260B	2	0.03	0.22	0.059	0.62
	06/09/16	8260B	1.4	0.029	0.21	0.056	0.53
	02/29/16	8260B	1.6	0.029	0.24	0.064	0.69
	11/03/15	8260B	1.5	0.036	0.23	0.07	0.63
	08/18/15	8260B	1.2	0.035	0.2	0.063	0.6
	06/04/15	8260B	0.89	0.025	0.15	0.039	0.43
	03/16/15	8260B	0.49	0.013	0.08	0.018	0.5
	11/14/14	8260B	0.81	0.033	0.15	0.11	0.77
	09/18/14	8260B	0.75	0.027	0.096	0.043	0.76
	06/05/14	8260B	1.3	0.052	0.2	0.098	1.2
	04/14/14	8260B	1.1	0.038	0.14	0.075	1.2



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-10	10/30/19	8260B	5.5	0.57	1.7	7.2	0.017
	08/22/19	8260B	4.6	0.66	1.6	7.4	0.019
	05/13/19	8260B	5.5	0.9	1.7	7.9	0.024
	03/26/19	8260B	5	0.86	1.7	7.9	0.047
	11/20/18	8260B	11	1.9	1.9	8	0.01
	09/04/18	8260B	10	2.4	1.8	8.1	<0.05
	05/02/18	8260B	13	4.9	2.1	9.6	0.03
	02/14/18	8260B	10	3.7	1.8	8.3	0.014
	11/28/17	8260B	9.8	4.7	1.8	8.3	0.035
	09/28/17	8260B	9.5	8.8	1.8	8.7	<0.1
	06/08/17	8260b	12	20	1.8	8.2	<0.1
	03/02/17	8260B	18	21	1.6	7.8	0.028
	11/02/16	8260B	17	22	1.7	8	<0.1
	09/11/16	8260b	16	20	1.6	7.3	<0.1
	06/09/16	8260B	15	22	1.7	8.9	0.018
	02/29/16	8260B	11	23	1.7	7.7	<0.1
	11/03/15	8260B	12	22	1.6	6.8	<0.05
	08/18/15	8260B	9.2	19	1.5	6.5	<0.5
	06/04/15	8260B	10	20	1.5	6.5	<0.05
	03/16/15	8260B	11	21	1.6	6.8	<0.05
	11/14/14	8260B	11	20	1.7	7.6	<0.02
	09/18/14	8260B	11	15	0.93	4	<0.05
	06/06/14	8260B	12	14	0.74	3.4	0.019
	04/11/14	8260B	14	19	1.5	6.9	<0.05
MKTF-11	10/30/19	8260B	13	1.5	0.85	2.2	0.041
	08/21/19	8260B	9.1	1.4	0.67	1.7	0.028
	05/13/19	8260B	6.1	3.4	0.57	1.8	0.046
	03/26/19	8260B	5.7	5	0.65	2.3	0.067
	11/20/18	8260B	11	4.7	0.47	2.5	0.071
	09/04/18	8260B	10	5.7	0.81	2.5	0.064
	05/02/18	8260B	13	12	1.2	3.8	0.5
	02/08/18	8260B	13	12	1	3.1	0.059
	11/28/17	8260B	9.9	8.8	0.84	2.6	0.068
	09/26/17	8260B	10	10	0.81	2.8	0.054
	06/08/17	8260B	4.5	4.7	0.47	1.5	0.05
	03/02/17	8260B	3.9	3.4	0.59	1.6	0.065
	11/02/16	8260B	3.9	4.5	0.52	1.6	0.071
	09/11/16	8260B	4.5	4.8	0.53	1.6	0.081
	06/09/16	8260B	4.5	5.8	0.57	1.8	0.078
	02/29/16	8260B	5.1	6.4	0.67	2.2	0.12
	11/03/15	8260B	11	13	0.96	3.9	0.056
	08/18/15	8260B	3.7	4.2	0.5	1.5	0.082
	06/04/15	8260B	12	13	1.2	4.9	0.041
	03/16/15	8260B	10	11	0.93	3.7	0.048
	11/13/14	8260B	9.5	8.2	0.77	2.3	0.08
	09/15/14	8260B	9.5	7.1	0.72	2	0.083
	06/05/14	8260B	12	7.8	0.75	2.2	0.096
	04/11/14	8260B	15	7.6	0.93	2.2	0.15



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-13	10/29/19	8260B	4.7	0.11	0.6	2.6	0.33
	08/20/19	--	SPH Detected - No samples were collected.				
	05/09/19	8260B	3.2	0.12	0.32	2.6	0.48
	03/26/19	8260B	3.5	0.14	0.6	3.5	0.44
	11/28/18	8260B	4.5	0.13	0.53	2.8	1.4
	08/30/18	8260B	3.5	0.12	0.65	3.2	1.2
	05/10/18	8260B	4.8	0.15	0.87	4	2
	03/15/17	8260B	3	0.21	0.87	4	2.3
MKTF-15	10/30/19	--	SPH Detected - No samples were collected.				
	08/21/19	--	SPH Detected - No samples were collected.				
	05/13/19	8260B	18	4.9	1.8	5.8	0.068
	03/25/19	--	SPH Detected - No samples were collected.				
	11/19/18	--	SPH Detected - No samples were collected.				
	08/28/18	8260B	17	4.6	1.8	5.8	0.14
	05/02/18	8260B	16	11	2.4	7.9	0.18
	02/08/18	--	SPH Detected - No samples were collected.				
	11/28/17	8260B	18	15	2.2	7.7	0.16
	09/26/17	--	SPH Detected - No samples were collected.				
	06/08/17	8260B	23	22	2.6	8.7	0.13
	03/02/17	8260B	24	17	2.1	7.7	0.16
	11/02/16	8260B	20	16	2.1	7.6	0.099
	09/11/16	8260B	24	16	2	7.3	0.096
	06/09/16	--	SPH Detected - No samples were collected.				
	03/16/16	--	SPH Detected - No samples were collected.				
	2015	--	SPH Detected - No samples were collected.				
	11/14/14	--	SPH Detected - No samples were collected.				
	09/17/14	8260B	11	7	1.4	4.3	0.38
	06/05/14	8260B	12	8.8	1.3	3.7	0.27
	04/10/14	8260B	16	2.4	1.2	6.1	0.27
	11/01/13	8021B	12	12	1.5	4.8	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-16	10/30/19	8260B	15	0.095	1.5	0.43	0.62
	08/22/19	8260B	9.8	0.043	0.48	0.11	0.55
	05/14/19	8260B	14	0.11	0.71	0.62	0.62
	02/20/19	8260B	21	0.19	1.4	1.6	0.61
	11/29/18	8260B	17	0.12	0.89	0.72	0.69
	08/31/18	8260B	17	0.13	1.3	1.4	0.64
	05/11/18	8260B	19	0.17	1.6	2	0.64
	02/15/18	8260B	1.8	0.024	0.015	0.23	0.04
	11/29/17	8260B	21	0.21	1.4	3.2	0.8
	09/26/17	8260B	23	0.24	1.6	3.9	0.92
	06/08/17	8260B	19	0.22	0.71	2.8	0.82
	03/14/17	8260B	22	0.34	1.7	4.9	0.72
	11/03/16	8260B	19	0.22	0.88	3.4	0.97
	09/12/16	8260B	23	0.24	1.3	4.3	1.7
	06/09/16	8260B	16	0.34	1.1	3.6	1.4
	02/29/16	8260B	19	0.28	1	3.9	1.4
	11/03/15	8260B	28	0.62	1.7	6.6	1.7
	08/23/15	8260B	24	0.64	1.4	5.6	2.1
	06/08/15	8260B	23	1.3	1.4	5.3	2
	03/16/15	8260B	19	0.45	1.4	5.4	1.6
	11/18/14	8260B	20	1.2	1.3	5.8	1.4
	09/17/14	8260B	17	1.4	1.2	5.3	2.1
	06/05/14	8260B	18	3.7	1.7	8.1	2
	04/10/14	8260B	11	7.5	1.1	3.6	0.27
	11/19/13	8021B	9.9	8.2	1.9	9.8	NA
MKTF-17	10/29/19	8260B	12	23	1.1	3.1	2.5
	08/20/19	8260B	0.87	0.0026	0.64	0.078	4.3
	05/09/19	8260B	2.2	0.0022	0.49	0.15	4.3
	03/26/19	8260B	0.98	<0.005	0.09	0.021	4.6
	11/28/18	8260B	0.0036	<0.005	0.025	<0.0075	5.7
	08/24/18	8260B	0.0027	<0.005	0.12	<0.0075	5.3
	05/04/18	8260B	0.047	0.0011	0.14	0.002	7.4
	02/16/18	8260B	0.22	0.00098	0.21	<0.0075	4.9
	12/01/17	8260B	0.14	0.0008	0.17	<0.0075	1.5
	09/26/17	8260B	0.047	0.0011	0.68	<0.0075	0.94
	06/14/17	8260B	0.26	0.0017	0.58	0.0048	0.39
	03/15/17	8260B	0.29	0.0022	0.23	0.07	0.28
	11/08/16	8260B	0.76	0.0019	0.39	0.0043	0.36
	09/13/16	8260B	1.3	0.0021	0.55	<0.015	0.38
	06/10/16	8260B	1.9	0.006	0.52	0.24	0.49
	02/26/16	8260B	0.26	<0.005	0.018	0.023	0.64
	11/03/15	8260B	0.029	<0.002	0.31	<0.003	0.77
	08/18/15	8260B	0.036	0.0011	0.3	0.0018	0.64
	06/08/15	8260B	0.011	<0.001	0.018	<0.0015	0.5
	03/12/15	8260B	0.0028	<0.001	0.0059	<0.0015	0.59
	11/18/14	8260B	0.14	<0.001	0.078	<0.0015	0.57
	09/18/14	8260B	0.55	<0.01	0.24	<0.015	0.69
	06/06/14	8260B	2.6	<0.01	0.48	0.068	1.1
	04/09/14	8260B	3.5	<0.01	0.58	0.27	1.3
	11/13/13	8021B	1.8	1.6	0.71	2.7	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-18	10/29/19	8260B	0.16	<0.002	0.00083	<0.003	0.088
	08/19/19	--	SPH Detected - No samples were collected.				
	05/16/19	8260B	0.14	<0.002	0.0023	<0.003	0.13
	03/26/19	8260B	0.17	<0.002	0.0029	<0.003	0.22
	11/28/18	8260B	0.0009	<0.002	<0.002	<0.003	0.13
	08/24/18	8260B	0.19	<0.002	0.011	<0.003	0.11
	05/04/18	8260B	0.11	<0.002	0.014	0.00073	0.14
	02/16/18	8260B	0.13	0.00033	0.021	<0.003	0.16
	06/14/17	8260B	0.03	<0.002	0.022	<0.003	0.1
	03/01/17	8260B	0.027	0.00033	0.026	0.00085	0.093
	11/08/16	8260B	0.016	0.0003	0.014	0.00076	0.081
	09/13/16	8260B	0.016	0.000377	0.015	0.0013	0.074
	06/10/16	8260B	0.016	0.00048	0.021	0.0025	0.092
	02/26/16	8260B	0.017	0.00059	0.034	0.0056	0.071
	11/03/15	8260B	0.019	<0.002	0.041	0.017	0.083
	08/18/15	8260B	0.032	0.0016	0.054	0.019	0.1
	06/08/15	8260B	0.05	0.0033	0.049	0.031	0.082
	03/17/15	8260B	0.058	<0.005	0.017	0.029	0.091
	11/18/14	8260B	0.096	0.0076	0.09	0.047	0.1
	09/18/14	8260B	0.12	0.013	0.069	0.042	0.12
	06/06/14	8260B	0.29	0.014	0.036	0.055	0.14
	04/14/14	8260B	0.29	0.015	0.058	0.044	0.15
	11/19/13	8021B	0.33	0.37	0.13	0.47	NA
MKTF-19	10/29/19	8260B	1.6	0.013	0.61	0.61	7.9
	08/19/19	8260B	1.4	<0.02	0.72	0.69	8.3
	05/09/19	8260B	1.8	<0.02	0.77	0.61	7.8
	03/26/19	8260B	1.3	<0.02	0.71	0.61	6.9
	11/28/18	8260B	1.9	<0.02	0.63	0.57	10
	08/24/18	8260B	1.7	0.0043	0.71	0.74	9.7
	05/04/18	8260B	2	0.0057	0.87	0.82	11
	02/16/18	8260B	1.9	0.0037	0.74	0.64	10
	12/01/17	8260B	1.9	0.0059	0.75	0.75	11
	09/26/17	8260B	3.2	0.014	0.8	0.87	12
	06/14/17	8260B	2.3	0.0084	0.78	0.9	10
	03/15/17	8260B	1.8	0.0098	0.6	0.92	9
	11/08/16	8260B	1.3	0.0068	0.7	1	10
	09/13/16	8260B	1.4	0.0075	0.69	0.92	8.9
	06/10/16	8260B	1.5	0.0064	0.69	0.66	7.9
	02/25/16	8260B	1.5	0.005	0.79	0.67	8.6
	11/03/15	8260B	2.8	0.022	0.76	0.93	8.4
	08/18/15	8260B	2.4	0.015	0.74	0.45	8.8
	06/08/15	8260B	1.8	0.013	0.59	0.31	9.1
	03/12/15	8260B	1.4	<0.01	0.43	0.15	9.7
	11/18/14	8260B	2.3	<0.05	0.74	0.36	9.7
	09/24/14	8260B	1.8	<0.05	0.73	0.76	11
	04/09/14	8260B	1.4	<0.05	0.68	0.61	9.7
	11/05/13	8021B	0.64	0.14	0.47	1.1	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
WELL ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
MKTF-20 <sup>1</sup>	11/05/19	8260B	2.4	<0.01	0.26	0.096	0.17
	08/21/19	8260B	4.8	0.009	1.1	3.7	0.035
	05/14/19	8260B	2.3	<0.01	1	3.5	0.032
	02/20/19	8260B	2.1	0.0021	0.23	0.14	0.22
	11/29/18	8260B	3	0.02	0.12	2.5	0.026
	08/31/18	8260B	9.9	0.064	0.77	9.1	0.096
	05/11/18	8260B	13	0.14	1.3	13	0.13
	02/15/18	8260B	12	0.19	0.96	12	0.055
	11/29/17	8260B	17	0.24	0.8	11	0.1
	09/26/17	8260B	16	0.34	0.58	11	0.17
	06/12/17	8260B	21	3.5	0.7	14	0.16
	03/14/17	8260B	17	2.2	0.26	9.8	0.23
	11/03/16	8260B	13	0.4	1.1	9.2	0.19
	09/12/16	8260B	18	0.48	1.3	8.8	0.16
	06/09/16	8260B	11	0.39	0.85	7.9	0.16
	03/01/16	8260B	13	0.47	1.1	9.2	0.13
	03/16/15	8260B	7	2.3	0.089	9.6	<0.05
	11/18/14	8260B	4.4	1.3	0.48	10	0.083
	04/11/14	8260B	25	17	2.8	14	0.38
MKTF-21 <sup>1</sup>	11/05/19	8260B	5.6	0.0082	1.1	2.8	0.29
	08/22/19	8260B	5.4	<0.02	0.68	0.50	0.29
	05/14/19	8260B	2.4	<0.02	0.28	0.22	0.29
	02/20/19	8260B	2	0.016	1.2	7.1	0.015
	11/29/18	8260B	2	<0.02	0.11	0.14	0.22
	08/31/18	8260B	5.9	0.013	0.8	0.99	0.5
	05/11/18	8260B	4.8	0.0074	0.47	0.67	0.52
	02/15/18	8260B	3.4	0.0035	0.31	0.39	0.39
	11/28/17	8260B	4.9	0.018	0.52	1.4	0.52
	09/26/17	8260B	6.3	0.016	0.61	0.83	0.63
	06/21/17	8260B	10	0.041	0.69	2.6	1.2
	03/14/17	8260B	8	0.038	0.46	2	0.61
	11/03/16	8260B	7.6	0.068	0.4	2.3	0.77
	09/12/16	8260B	9.3	0.059	0.48	2	0.68
	06/09/16	8260B	7.5	0.17	0.25	1.3	0.55
	03/01/16	8260B	4.6	0.34	0.15	1.3	0.48
	06/10/15	8260B	6.2	0.48	0.18	0.81	0.82
	03/16/15	8260B	3.7	0.26	0.013	0.27	0.63
	04/11/14	8260B	7.2	13	2.1	11	0.58



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
WELL ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
MKTF-22	10/24/19	8260B	3.4	<0.02	0.27	<0.03	2.6
	08/20/19	8260B	3.2	0.0087	0.26	0.014	2.7
	05/09/19	8260B	3.5	0.0091	0.33	<0.03	3.3
	03/26/19	8260B	2.4	<0.02	0.19	<0.03	4.1
	11/28/18	8260B	3	0.0084	0.17	<0.03	6
	08/30/18	8260B	2.2	0.0056	0.12	<0.03	5.4
	05/10/18	8206B	2.5	0.0088	0.15	0.014	5.9
	02/08/18	8260B	2.3	0.0093	0.14	0.018	5.7
	11/28/17	8260B	2.5	0.013	0.18	0.025	6
	10/03/17	8260B	2.4	0.018	0.28	0.037	4.9
	06/08/17	8260B	2.9	0.014	0.18	0.022	5.9
	03/08/17	8260B	3.5	0.03	0.42	0.046	6.5
	11/01/16	8260B	3.7	0.032	0.46	<0.03	8
	09/10/16	8260B	4.2	0.03	0.43	0.049	8.8
	06/10/16	8260B	3.8	0.035	0.5	0.062	6.5
	02/25/16	8260B	4	0.032	0.57	0.07	7.2
	11/09/15	8260B	2.7	<0.02	0.35	<0.03	5.5
	08/20/15	8260B	1.2	<0.02	0.097	<0.03	4.8
	06/09/15	8260B	2.9	0.022	0.32	0.047	5.7
	03/12/15	8260B	2.6	<0.02	0.25	<0.03	5.1
	11/17/14	8260B	1.6	<0.01	0.09	<0.0015	3.9
	09/23/14	--	Dry - No samples were collected.				
	04/10/14	8260B	2.3	0.021	0.28	0.032	3.7
	11/19/13	8021B	1.3	0.0075	0.072	0.016	NA
MKTF-23	10/29/19	8260B	4.8	8.3	1.2	7.1	0.33
	08/20/19	--	SPH Detected - No samples were collected.				
	05/09/19	--	SPH Detected - No samples were collected.				
	03/26/19	8260B	3.6	8.4	0.99	7.4	0.48
	06/10/16	8260B	3.2	0.98	0.3	6.1	1.4
	02/25/16	8260B	3.1	1.2	0.31	6.7	1.6
	11/09/15	8260B	2.6	3	0.57	7.8	1.4
	08/21/15	8260B	3	2.7	0.42	6.2	1.2
	06/09/15	8260B	2.9	3	0.51	6.5	1.1
	03/12/15	8260B	3.3	4.8	0.6	8.1	1.1
	11/17/14	8260B	3.6	3	0.47	4.5	0.57
	09/23/14	8260B	2.7	1.4	0.34	1.6	0.48
	04/10/14	--	SPH Detected - No samples were collected.				
	11/05/13	8021B	0.92	1	0.23	0.66	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-24	10/23/19	8260B	5	0.024	0.31	<0.03	0.11
	08/23/19	8260B	4.1	0.022	0.24	0.012	0.11
	05/06/19	8260B	3	0.014	0.12	<0.03	0.11
	02/25/19	--	Well not sampled.				
	11/15/18	8260B	4.8	0.021	0.2	<0.03	0.12
	08/20/18	8260B	4.8	0.025	0.32	<0.03	0.12
	05/01/18	8260B	5.5	0.029	0.3	0.0065	0.13
	02/06/18	8260B	6.3	0.03	0.41	0.015	0.17
	11/20/17	8260B	5.5	0.023	0.32	0.018	0.16
	10/03/17	8260B	2.6	0.019	0.071	<0.03	0.16
	06/05/17	8260B	6	0.024	0.3	0.0083	0.2
	03/29/17	8260B	3	0.015	0.042	<0.03	0.19
	10/28/16	8260B	6.1	0.025	0.3	0.015	0.23
	09/07/16	8260B	5.3	0.021	0.21	0.011	0.17
	06/08/16	8260B	3	0.018	0.074	0.006	0.21
	02/22/16	8260B	5.6	0.027	0.31	0.0088	0.21
	11/04/15	8260B	2.8	<0.02	0.054	<0.03	0.21
	08/20/15	8260B	2.7	<0.02	0.056	<0.03	0.2
	06/10/15	8260B	2.9	0.015	0.046	<0.0075	0.17
	03/11/15	8260B	2.6	0.012	0.031	<0.0075	0.17
	11/14/14	8260B	1.6	0.0095	0.049	0.0029	0.063
	09/24/14	8260B	1.6	0.0087	0.058	<0.003	0.17
	04/08/14	8260B	0.45	0.0067	0.065	0.0023	0.18
	11/01/13	8021B	1.2	<0.02	0.23	<0.04	NA
MKTF-25	10/23/19	8260B	0.37	<0.005	0.00081	<0.0075	0.88
	08/27/19	8260B	0.13	<0.005	<0.005	<0.0075	0.85
	05/06/19	8260B	0.37	<0.01	<0.01	<0.015	0.29
	02/14/19	--	Well not sampled.				
	11/15/18	8260B	1.7	0.0059	0.0029	<0.015	0.2
	08/17/18	8260B	4.5	0.017	0.026	<0.015	0.25
	05/06/18	8260B	3.4	0.015	0.15	0.009	0.26
	02/05/18	8260B	2	0.01	0.11	0.003	0.25
	11/21/17	8260B	1.6	0.011	0.14	0.013	0.2
	09/25/17	8260B	1.6	0.01	0.13	0.014	0.23
	06/05/17	8260B	0.62	0.0028	0.021	0.003	0.12
	03/29/17	8260B	0.78	0.0045	0.024	0.0043	0.12
	11/01/16	8260B	0.96	0.006	0.046	0.0046	0.19
	09/09/16	8260B	0.92	0.005	0.018	<0.015	0.15
	06/09/16	8260B	0.99	0.013	0.19	0.018	0.48
	02/23/16	8260B	1.2	0.011	0.19	0.0064	0.2
	11/05/15	8260B	1.1	0.0087	0.14	0.016	0.25
	08/21/15	8260B	1.2	0.0099	0.13	0.0089	0.24
	06/10/15	8260B	1	0.0066	0.099	0.016	0.21
	03/11/15	8260B	0.97	0.012	0.17	<0.0075	0.27
	11/14/14	8260B	0.58	<0.005	0.023	<0.0075	0.18
	09/23/14	8260B	0.53	<0.01	0.012	<0.015	0.23
	04/08/14	8260B	1	0.0092	0.13	0.013	0.27
	11/01/13	8021B	1.4	<0.02	0.16	<0.04	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-26	06/09/16	8260B	0.33	0.019	0.0036	0.0077	0.082
	02/22/16	8260B	0.15	0.0014	<0.005	<0.0075	0.055
	11/04/15	8260B	0.76	0.0072	0.0069	<0.0075	0.094
	08/20/15	8260B	0.38	0.005	<0.005	<0.0075	0.065
	06/10/15	8260B	0.8	0.0087	0.0069	<0.0075	0.079
	03/11/15	8260B	0.8	0.0078	0.0071	<0.0075	0.099
	11/14/14	8260B	0.97	0.011	<0.005	<0.0075	0.094
	09/24/14	8260B	1.6	0.019	0.012	0.0016	0.084
	04/08/14	8260B	0.017	<0.001	<0.001	<0.0015	0.049
	11/01/13	8021B	0.57	0.008	0.15	0.002	NA
MKTF-27	10/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	08/21/19	8260B	0.0097	<0.001	<0.001	<0.0015	0.024
	05/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.019
	03/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0018
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
	08/20/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	05/01/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.025
	02/06/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.018
	11/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	10/03/17	8260B	0.00013	<0.001	<0.001	<0.0015	0.025
	06/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	03/29/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.022
	10/28/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
	09/07/16	8260B	0.00031	0.00021	<0.001	<0.0015	0.026
	06/08/16	8260B	0.00015	0.0004	0.00015	0.00091	0.042
	02/22/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	08/20/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.033
	06/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.034
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0089
	11/14/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.019
	09/24/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	04/08/14	8260B	<0.002	<0.002	<0.002	<0.003	0.038
	11/19/13	8021B	<0.001	<0.001	<0.001	<0.002	NA



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-28	10/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0049
	08/21/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0045
	05/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00074
	03/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00082
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0028
	08/20/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.008
	05/01/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0094
	02/06/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00074
	11/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0033
	10/03/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00035
	06/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00044
	03/29/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00097
	10/28/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00052
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0021
	06/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00054
	02/23/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	08/20/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0014
MKTF-29	06/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/14/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	09/24/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.016
	10/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	08/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0086
	05/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0048
	03/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0041
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0037
	08/20/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0047
	05/01/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0073
	02/06/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	11/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0095
	10/03/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0072
	06/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0058
	03/29/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0094
	10/28/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.005
	09/07/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0024
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0088
	02/23/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	08/20/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.017
	09/24/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	04/08/14	8260B	<0.001	<0.001	<0.001	<0.015	0.012



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-30	10/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0015
	08/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
	05/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0018
	03/28/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0013
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0021
	08/20/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0018
	05/01/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.0018
	02/06/18	8260B	0.00022	<0.001	<0.001	<0.0015	0.0028
	11/20/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0014
	10/03/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0011
	06/05/17	8260B	<0.002	<0.002	<0.002	<0.003	0.002
	03/29/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0028
	10/28/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	09/07/16	8260B	0.0006	<0.001	0.00019	<0.0015	0.00084
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0036
	02/23/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.0023
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0025
	08/20/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0019
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0027
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.0019
	11/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.0037
	09/24/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.0059
	04/09/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
MKTF-31	10/22/19	8260B	0.0006	<0.001	<0.001	<0.0015	0.10
	08/23/19	8260B	0.00072	<0.001	<0.001	<0.0015	0.11
	05/06/19	8260B	0.00045	<0.001	<0.001	<0.0015	0.09
	02/20/19	8260B	0.001	<0.001	<0.001	<0.0015	0.12
	11/15/18	8260B	0.0011	<0.001	<0.001	<0.0015	0.088
	08/17/18	8260B	0.00073	<0.001	<0.001	<0.0015	0.088
	05/06/18	8260B	0.00099	<0.001	<0.001	<0.0015	0.11
	02/05/18	8260B	0.0013	<0.001	<0.001	<0.0015	0.085
	11/21/17	8260B	0.00062	<0.001	<0.001	<0.0015	0.066
	09/25/17	8260B	0.00085	<0.001	<0.001	<0.0015	0.076
	06/05/17	8260B	0.00066	<0.001	<0.001	<0.0015	0.072
	03/07/17	8260B	0.00062	<0.001	<0.001	<0.0015	0.074
	10/31/16	8260B	0.00048	0.00015	<0.001	<0.0015	0.07
	09/08/16	8260B	0.00077	<0.001	<0.001	<0.0015	0.063
	06/09/16	8260B	0.00075	<0.001	<0.001	<0.0015	0.08
	02/23/16	8260B	0.00062	<0.001	<0.001	<0.0015	0.061
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.079
	08/21/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.064
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.056
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.054
	11/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	09/23/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.055
	04/08/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.055



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-32	10/23/19	8260B	0.00036	<0.002	<0.002	<0.003	0.67
	08/20/19	8260B	0.00031	<0.001	<0.001	<0.0015	0.61
	05/07/19	8260B	<0.002	<0.002	<0.002	<0.003	0.74
	02/13/19	8260B	<0.002	<0.002	<0.002	<0.003	0.84
	11/15/18	8260B	<0.002	<0.002	<0.002	<0.003	0.81
	08/28/18	8206B	0.00076	<0.002	<0.002	<0.003	0.78
	05/09/18	8260B	0.0004	<0.001	<0.001	<0.0015	0.82
	02/07/18	8260B	0.00049	<0.001	<0.001	<0.0015	0.74
	11/27/17	8260B	0.00028	<0.001	<0.001	<0.0015	0.6
	09/25/17	8260B	0.00038	<0.001	<0.001	<0.0015	0.69
	06/06/17	8260B	0.00042	<0.001	<0.001	<0.0015	0.64
	03/07/17	8260B	0.00045	<0.001	<0.001	<0.0015	0.66
	10/31/16	8260B	0.00049	<0.001	<0.001	<0.0015	0.63
	09/09/16	8260B	0.00047	<0.002	<0.002	<0.003	0.75
	06/09/16	8260B	0.00081	<0.002	<0.002	<0.003	0.64
	02/24/16	8260B	0.0004	<0.001	<0.001	<0.0015	0.62
	11/05/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.59
	08/21/15	8260B	<0.002	<0.002	<0.002	<0.003	0.49
	06/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.59
	03/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.54
	11/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.4
	09/23/14	8260B	<0.005	<0.005	<0.005	<0.0075	0.32
	04/09/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.15
MKTF-33	10/24/19	8260B	<0.002	<0.002	<0.002	<0.003	0.67
	08/20/19	8260B	<0.005	<0.005	<0.005	<0.0015	0.73
	05/09/19	8260B	<0.005	<0.005	<0.005	<0.0015	0.3
	03/26/19	8260B	<0.005	<0.005	<0.005	<0.0075	0.5
	11/28/18	8260B	<0.002	<0.002	<0.002	<0.003	0.45
	08/30/18	8260B	<0.001	<0.001	<0.001	<0.003	0.58
	05/10/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.57
	02/08/18	8260B	<0.001	<0.001	<0.001	0.00055	0.41
	11/28/17	8260B	0.00011	<0.001	<0.001	<0.0015	0.53
	09/25/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.25
	06/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.22
	03/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.23
	11/01/16	8260B	<0.001	0.00015	0.00019	<0.0015	0.2
	09/10/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.27
	06/10/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.4
	02/25/16	8260B	0.00016	<0.001	<0.001	<0.0015	0.31
	11/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.58
	08/21/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.63
	06/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.49
	03/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	0.48
	11/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	0.41
	09/23/14	8260B	<0.005	<0.005	<0.005	<0.0075	0.45
	04/10/14	8260B	0.028	<0.001	<0.001	<0.0015	0.36



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-34	10/29/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00058
	08/19/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/09/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/26/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
	11/28/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
	08/24/18	8260B	0.00024	<0.001	<0.001	<0.0015	0.00087
	05/04/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00087
	02/16/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00066
	12/01/17	8260B	0.000096	<0.001	<0.001	<0.0015	0.00075
	09/26/17	8260B	0.0003	<0.001	0.00014	<0.0015	0.00078
	06/14/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00038
	03/01/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00058
	11/08/16	8260B	0.00014	<0.001	0.00016	<0.0015	0.00097
	09/13/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00035
	06/10/16	8260B	0.00045	<0.001	0.00026	<0.0015	0.00058
	02/25/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/03/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/18/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/08/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/12/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/24/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	04/09/14	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
MKTF-35	10/29/19	8260B	0.056	<0.001	0.0022	<0.0015	0.12
	08/19/19	8260B	0.022	<0.001	0.003	0.00066	0.026
	05/16/19	8260B	0.014	<0.001	0.0024	<0.0015	0.042
	03/26/19	8260B	0.021	<0.001	0.0034	<0.0015	0.017
	11/28/18	8260B	0.019	0.00017	0.0012	<0.0015	0.077
	08/23/18	8260B	0.011	<0.001	0.00068	<0.0015	0.063
	05/03/18	8260B	0.0099	<0.001	0.00074	<0.0015	0.056
	02/18/18	8260B	0.0024	0.0034	0.00038	<0.0015	0.078
	11/30/17	8260B	0.0015	0.0001	0.00029	<0.0015	0.11
	09/27/17	8260B	0.0015	<0.001	0.00015	<0.0015	0.077
	06/14/17	8260B	0.0023	<0.001	0.0011	<0.0015	0.033
	03/01/17	8260B	0.053	0.00011	0.0027	<0.0015	0.0079
	11/03/16	8260B	0.065	0.00026	0.055	0.01	0.01
	09/13/16	8260B	0.37	0.00052	0.025	0.011	0.012
	06/10/16	8260B	0.067	0.00027	0.012	0.0055	0.019
	02/26/16	8260B	0.046	<0.005	0.034	0.0045	0.02
	11/03/15	8260B	0.19	<0.001	0.039	0.0023	0.048
	08/18/15	8260B	0.97	<0.005	0.16	<0.0075	0.061
	06/04/15	8260B	0.79	0.0023	0.19	0.0021	0.027
	03/17/15	8260B	0.47	0.0052	0.32	0.17	0.033
	11/21/14	8260B	0.039	<0.001	0.052	0.073	0.066



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-36	11/06/19	--	SPH Detected - No samples were collected.				
	08/19/19	--	Could not locate well - No samples were collected.				
	05/14/19	--	Could not locate well - No samples were collected.				
	03/25/19	--	Could not locate well - No samples were collected.				
	11/29/18	--	Could not locate well - No samples were collected.				
	09/05/18	8260B	7.4	0.019	1.5	0.11	1.3
	05/03/18	8260B	9.4	0.03	1.9	0.19	2.1
	02/15/18	8260B	8.4	0.02	1.5	0.16	2.5
	11/30/17	8260B	9.5	0.03	1.7	0.22	2.9
	09/27/17	8260B	9.1	0.023	1.6	0.067	2.3
	06/14/17	8260B	9.4	0.017	1.6	0.27	3.9
	03/01/17	8260B	8.6	0.013	1.4	0.032	8
	11/08/16	8260B	8.4	0.021	1.3	0.13	6
	09/13/16	--	SPH Detected - No samples were collected.				
	06/10/16	--	SPH Detected - No samples were collected.				
	03/17/16	--	SPH Detected - No samples were collected.				
	11/03/15	--	SPH Detected - No samples were collected.				
	08/18/15	8260B	9	0.033	1.6	0.064	8
	06/04/15	8260B	8.1	0.034	1.6	0.14	8.4
	03/17/15	8260B	8.3	0.023	1.4	0.078	8.3
	11/21/14	8260B	8.4	0.032	1.5	0.56	7.2
MKTF-37	10/28/19	--	SPH Detected - No samples were collected.				
	08/23/19	--	SPH Detected - No samples were collected.				
	05/16/19	--	SPH Detected - No samples were collected.				
	03/26/19	8260B	0.8	0.46	0.026	0.9	0.047
	11/27/18	--	SPH Detected - No samples were collected.				
	08/23/18	8260B	1.3	0.014	0.036	0.37	0.037
	05/03/18	8260B	2.1	0.05	0.078	0.58	0.041
	02/15/18	--	SPH Detected - No samples were collected.				
	11/30/17	--	SPH Detected - No samples were collected.				
	09/27/17	--	SPH Detected - No samples were collected.				
	06/14/17	--	SPH Detected - No samples were collected.				
	03/01/17	8260B	2	0.18	0.024	0.96	0.032
	11/03/16	8260B	0.96	0.012	0.014	0.84	0.03
	08/18/15	8260B	0.76	0.14	0.024	1.6	0.05
	06/04/15	8260B	1.2	0.058	0.017	0.93	0.054
	03/17/15	8260B	0.82	0.27	0.029	0.49	0.057
	11/21/14	8260B	0.14	0.2	0.0093	1.3	0.027



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
WELL ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
MKTF-38	12/03/19	8260B	<0.001	0.005	<0.001	<0.0015	<0.001
	08/20/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00056
	06/27/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/14/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/26/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00058
	11/20/18	8260B	0.0012	0.053	0.00023	0.00077	0.00066
	08/21/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.00036
	05/03/18	8260B	0.0003	<0.001	<0.001	<0.0015	0.00078
	02/12/18	8260B	0.00018	0.00019	0.00013	0.00057	0.001
	11/30/17	8260B	0.0012	0.000074	<0.001	<0.0015	0.001
	09/28/17	8260B	0.002	<0.001	<0.001	<0.0015	0.00049
	06/21/17	8260B	0.00079	<0.001	<0.001	<0.0015	0.00068
	03/14/17	8260B	0.00017	<0.001	<0.001	<0.0015	0.00048
	11/01/16	8260B	0.00039	<0.001	<0.001	<0.0015	0.001
	09/13/16	8260B	0.00093	<0.001	<0.001	<0.0015	0.0006
	06/08/16	8260B	0.0012	<0.001	<0.001	<0.0015	0.0052
	02/29/16	8260B	0.00034	<0.001	<0.001	<0.0015	0.00059
	11/09/15	8260B	0.0013	<0.001	<0.001	<0.0015	0.0043
	08/24/15	8260B	0.0017	<0.001	<0.001	<0.0015	0.0073
	06/10/15	8260B	0.0054	<0.001	<0.001	<0.0015	0.0076
	03/16/15	8260B	0.0092	0.018	<0.001	<0.0015	0.006
	11/21/14	8260B	0.0028	<0.001	0.0029	0.0031	0.0074
MKTF-39	11/05/19	8260B	0.01	<0.001	0.041	0.0014	<0.001
	08/20/19	8260B	0.0083	<0.005	0.038	<0.0075	<0.005
	06/05/19	8260B	0.0091	0.0008	0.034	0.016	<0.001
	03/28/19	--	Not accessible to collect samples.				
	11/20/18	8260B	0.0084	0.00065	0.03	0.0039	<0.001
	08/21/18	8260B	0.0083	<0.001	0.045	<0.0015	<0.001
	05/06/18	8260B	0.012	<0.005	0.056	<0.0075	<0.005
	02/08/18	8260B	0.013	0.0024	0.048	<0.0075	<0.005
	11/28/17	8260B	0.013	<0.005	0.05	<0.0075	<0.005
	09/28/17	8260B	0.01	<0.005	0.049	<0.0075	<0.005
	06/08/17	8260B	0.012	<0.005	0.057	<0.0075	<0.005
	03/14/17	8260B	0.012	<0.005	0.063	<0.0075	<0.005
	11/01/16	8260B	0.013	<0.005	0.059	<0.0075	<0.005
	09/13/16	8260B	0.016	<0.005	0.06	<0.0075	<0.005
	06/08/16	8260B	0.016	<0.001	0.061	0.0069	0.00036
	03/03/16	8260B	0.019	<0.001	0.064	0.00069	<0.001
	11/09/15	8260B	0.021	<0.001	0.064	<0.0015	<0.001
	08/23/15	8260B	0.023	<0.001	0.06	0.0016	<0.001
	06/10/15	8260B	0.025	<0.002	0.064	<0.003	<0.002
	03/16/15	8260B	0.016	<0.002	0.039	<0.003	<0.002
	11/18/14	8260B	0.02	<0.005	0.06	<0.0075	<0.005



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-40	10/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0072
	08/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/06/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/20/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/17/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/06/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/08/18	8260B	0.00019	<0.001	<0.001	<0.0015	0.00053
	11/21/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/25/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00046
	06/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00046
	03/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00041
	10/31/16	8260B	<0.001	0.00015	<0.001	<0.0015	0.0003
	09/08/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00062
	02/23/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00061
	11/04/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/21/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/21/14	8260B	<0.001	<0.001	<0.001	<0.001	<0.001
MKTF-41	10/23/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0013
	08/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	05/07/19	8260B	<0.001	<0.001	<0.001	<0.0015	0.00087
	02/13/19	8260B	<0.001	<0.001	<0.001	0.0013	0.00099
	11/15/18	8260B	<0.001	<0.001	<0.001	0.0012	0.0014
	08/29/18	8260B	<0.001	<0.001	<0.001	0.00082	0.0011
	05/09/18	8260B	<0.001	<0.001	<0.001	0.00047	0.0016
	02/07/18	8260B	<0.001	<0.001	<0.001	0.00036	0.0014
	11/27/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00081
	09/25/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	06/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	03/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	10/31/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00091
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00041
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.003
	02/24/16	8260B	<0.001	<0.001	<0.001	<0.0015	0.00068
	11/05/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/21/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/12/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/18/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.005	1	0.7	0.62	0.1
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-42	10/23/19	8260B	0.011	<0.002	0.0011	0.021	0.0044
	08/22/19	8260B	0.0096	<0.002	0.0011	0.022	0.0041
	05/07/19	8260B	0.007	<0.002	0.00033	0.015	0.004
	02/13/19	8260B	0.017	0.00087	0.0031	0.051	0.0044
	11/15/18	8260B	0.03	0.0021	0.0087	0.11	0.005
	08/29/18	8260b	0.011	0.0007	0.0018	0.032	0.0043
	05/09/18	8260B	0.0093	0.00076	0.0016	0.031	0.0038
	02/07/18	8260B	0.0084	0.00056	0.0015	0.032	0.0033
	11/27/17	8260B	0.0071	0.0008	0.0026	0.037	0.002
	09/25/17	8260B	0.0093	0.00098	0.0039	0.046	0.002
	06/06/17	8260B	0.0049	0.00037	0.0011	0.021	0.0014
	03/07/17	8260B	0.0049	0.00044	0.0011	0.024	0.0011
	10/31/16	8260B	0.0034	0.00049	0.0019	0.027	0.00067
	09/09/16	8260B	0.004	0.00033	0.0018	0.025	0.00056
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/24/16	8260B	0.0041	0.0022	0.0011	0.026	<0.001
	11/05/15	8260B	0.0033	<0.001	0.0017	0.022	<0.001
	08/21/15	8260B	0.0028	<0.001	0.001	0.017	<0.001
	06/10/15	8260B	0.0016	<0.001	<0.001	0.011	<0.001
	03/11/15	8260B	0.0017	<0.001	<0.001	0.01	<0.001
	11/18/14	8260B	0.012	<0.01	<0.01	0.056	<0.01
MKTF-43	10/24/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/22/19	8260B	0.00035	<0.01	<0.001	0.0007	<0.001
	05/08/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/30/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/09/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/07/18	8260B	0.00018	<0.001	<0.001	<0.0015	<0.001
	11/27/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/25/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/06/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/31/16	8260B	<0.001	0.00013	<0.001	<0.0015	<0.001
	09/09/16	8260B	0.00041	<0.001	<0.001	<0.0015	<0.001
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/24/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/05/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/21/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/10/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/11/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/18/14	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001



**8.17 MKTF WELLS**  
**BTEX and MTBE Analytical Results**

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	<b>0.1</b>
40 CFR 141.61 MCL			0.005	1	0.7	10	NE
NMED Tap Water (JUNE 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOVEMBER 2019)			0.0046	1.1	0.0015	0.19	0.14
WELL ID	DATE SAMPLED	METHOD					
MKTF-44	10/24/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/22/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/08/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/13/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/30/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	05/10/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/08/18	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/28/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/25/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/05/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	03/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/01/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	09/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/09/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	02/24/16	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/09/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	08/17/15	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	06/10/15	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	03/12/15	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	11/21/14	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
MKTF-46	12/03/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTF-47	12/03/19	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTF-48	12/03/19	8260B	<b>0.05</b>	<0.001	0.0055	0.00063	<0.001
MKTF-49	12/03/19	8260B	<b>18</b>	<b>8.2</b>	<b>1.3</b>	<b>6.6</b>	0.014
MKTF-50	12/03/19	8260B	<b>11</b>	0.064	<b>1.2</b>	0.17	0.0027

**DEFINITIONS**

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

**STANDARDS**

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.61 Maximum Contaminant Levels for Organic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

**NOTES**

MKTF-13 and MKTF-15 - 1st Quarter - had hydrocarbon layer - not sampled.

MKTF-15 - had hydrocarbon layer -4th Quarter - no samples collected.

MKTF-36 - Was not able to locate well at Truck Loading Rack for the 4th Qtr 2018.

MKTF-37 - Hydrocarbon layer, sheen detected in 4th Qtr 2018.



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-1	02/24/16	8015D/300.0	3	51	<5.0	<0.1	470	2.6	2.6	0.55
	11/04/15	8015D/300.0	200	36	<5.0	1.1	450	<1.0	<1.0	<0.5
	08/21/15	8015D/300.0	34	26	<5.0	0.78	460	<1.0	<1.0	<2.5
	06/09/15	8015D	110	31	<50	NA	NA	NA	NA	NA
	03/11/15	8015D	370	31	<50	NA	NA	NA	NA	NA
	06/06/14	8015D/300.0	510	50	<50	0.6	400	<1.0	<1.0	0.58
MKTF-2	11/19/19	8015D/300.0	0.65	2.4	<2.5	0.98	1900	<2.0	<0.5	330
	08/23/19	8015D/300.0	3.1	3.9	<5.0	0.95	2000	<2.0	<0.5	150
	05/06/19	8015D/300.0	3.5	5.3	<5.0	1.3	1600	<0.5	<0.5	61
	03/28/19	8015D/300.0	3.8	4.1	<5.0	1.2	1400	<1.0	<1.0	52
	11/18/18	8015D/300.0	2.9	18	<5.0	2.3	570	0.18	<0.5	5.6
	08/20/18	8015D/300.0	1.3	7.8	<5.0	2.1	510	<0.5	<0.5	11
	05/01/18	8015D/300.0	3.2	9.1	<5.0	2.3	520	<0.5	<0.5	15
	02/06/18	8015D/300.0	2.8	7.7	<5.0	2.3	520	<1.0	<1.0	20
	11/20/17	8015D/300.0	2.7	12	<5.0	2.4	540	<1.0	<1.0	18
	10/03/17	8015D/300.0	1.5	9.3	<5.0	1.8	460	<1.0	<1.0	20
	03/16/17	8015D/300.0	2.7	14	<5.0	2.7	400	<0.5	<0.5	16
	10/28/16	8015D/300.0	1.4	6.1	<5.0	2.7	380	<1.0	<1.0	40
	09/07/16	8015D/300.0	1.5	6.2	<5.0	2.3	410	<1.0	<1.0	48
	06/10/16	8015D/300.0	1.2	5.2	<5.0	2.7	390	<1.0	<1.0	50
	02/24/16	8015D/300.0	1	1.2	<5.0	1.8	520	8.8	8.8	160
	11/04/15	8015D/300.0	1	2.5	<5.0	2.5	360	<1.0	<1.0	49
	08/21/15	8015D/300.0	<1.0	2	<5.0	1.2	550	6.2	6.2	130
	06/09/15	8015D	<1.0	3.5	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	1.3	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	<1.0	0.61	<5.0	<1.0	830	<1.0	<1.0	230
	09/18/14	8015D	1.7	6.8	<5.0	NA	NA	NA	NA	NA
	06/06/14	8015D/300.0	<1.0	1.5	<5.0	0.76	750	<1.0	<1.0	200
	04/08/14	8015D	<1.0	0.67	<5.0	NA	NA	NA	NA	NA
	10/28/13	8015D	<1.0	3.8	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-4	10/30/19	8015D/300.0	0.73	10	<2.5	1.2	210	<0.5	<0.5	2.9
	08/21/19	8015D/300.0	4.3	6.4	<5.0	0.81	220	<0.5	0.12	16
	05/13/19	8015D/300.0	5.4	9.6	<5.0	1	260	<0.5	<0.5	5.6
	03/26/19	8015D/300.0	5	10	<5.0	1	240	<0.5	<0.5	4.7
	11/20/18	8015D/300.0	4.5	7.6	<5.0	1.1	210	0.093	<0.5	9.6
	09/04/18	8015D/300.0	4.7	12	<5.0	1	200	<0.5	0.083	5.5
	05/02/18	8015D/300.0	4.9	12	<5.0	<0.5	200	<0.5	<0.5	9.8
	02/14/18	8015D/300.0	5	9.6	<5.0	0.93	220	<0.5	<0.5	8.6
	11/28/17	8015D/300.0	5.6	16	<5.0	1.1	210	<1.0	<1.0	2.3
	09/26/17	8015D/300.0	6.6	13	<5.0	0.87	200	<1.0	<1.0	0.7
	06/08/17	8015D/300.0	5.7	10	<5.0	0.67	210	<1.0	<1.0	5.3
	03/02/17	8015D/300.0	5.7	12	<5.0	0.99	220	<1.0	<1.0	2.8
	11/02/16	8015D/300.0	4.1	9.8	<5.0	1	180	<0.5	<0.5	6.1
	09/11/16	8015D/300.0	5.3	10	<5.0	0.74	220	<1.0	<1.0	4.1
	06/09/16	8015D/300.0	3.9	9	<5.0	0.79	250	<1.0	<1.0	7
	02/29/16	8015D/300.0	3.6	9.2	<5.0	0.97	250	<1.0	<1.0	3.2
	11/03/15	8015D/300.0	3	8.6	<5.0	0.96	300	<1.0	<1.0	3
	08/18/15	8015D/300.0	3.7	6.8	<5.0	0.86	300	<0.1	<0.1	4.2
	06/04/15	8015D	2.3	6.2	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	1.9	4.8	<5.0	NA	NA	NA	NA	NA
	11/13/14	8015D/300.0	2	4.2	<5.0	<1.0	250	<1.0	<1.0	26
	09/15/14	8015D	1.5	3.4	<5.0	NA	NA	NA	NA	NA
	06/04/14	8015D/300.0	2.9	8.2	<5.0	0.7	0.19	<1.0	<1.0	6.8
	04/11/14	8015D	4.5	9.4	<5.0	NA	NA	NA	NA	NA
MKTF-9	11/18/19	8015D/300.0	1.0	10	<2.5	0.3	220	<0.5	<0.5	25
	08/28/19	8015D/300.0	3.9	12	<5.0	0.51	230	<0.5	<0.5	12
	05/13/19	8015D/300.0	3.1	8.4	<5.0	0.47	250	<0.5	<0.5	8.1
	03/26/19	8015D/300.0	2.5	8.2	<5.0	0.5	240	<0.5	<0.5	10
	11/28/18	8015D/300.0	1.8	9.1	<5.0	<0.5	260	0.11	<0.5	24
	09/04/18	8015D/300.0	2.4	11	<5.0	0.52	260	<0.5	<0.5	17
	05/02/18	8015D/300.0	2.6	8.2	<5.0	0.34	250	<0.5	0.21	22
	02/14/18	8015D/300.0	2.2	8.7	<5.0	0.4	220	<0.5	<0.5	27
	11/28/17	8015D/300.0	2.6	11	<5.0	0.45	220	<1.0	<1.0	27
	09/28/17	8015D/300.0	4.2	13	<5.0	0.35	180	<0.5	<0.5	14
	06/12/17	8015D/300.0	2.4	11	<5.0	<0.5	180	<1.0	<1.0	14
	03/15/17	8015D/300.0	3.9	12	<5.0	0.33	180	<0.1	<0.1	28
	11/02/16	8015D/300.0	1.6	7.8	<5.0	0.46	150	<0.5	<0.5	71
	09/11/16	8015D/300.0	2.3	6.7	<5.0	0.26	160	<1.0	<1.0	57
	06/09/16	8015D/300.0	1.7	7.8	<5.0	0.35	170	<1.0	<1.0	81
	02/29/16	8015D/300.0	2.5	7.4	<5.0	0.47	170	<1.0	<1.0	70
	11/03/15	8015D/300.0	5.3	9.8	<5.0	0.46	170	<0.1	<0.1	110
	08/18/15	8015D/300.0	4.7	7.1	<5.0	0.43	170	<0.1	<0.1	130
	06/04/15	8015D	1.8	4.1	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	<1.0	3.3	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	2.1	4.4	<5.0	<1.0	180	<1.0	<1.0	140
	09/18/14	8015D	1.4	5.6	<5.0	NA	NA	NA	NA	NA
	06/05/14	8015D/300.0	2.7	6.2	<5.0	0.43	180	<1.0	<1.0	78
	04/14/14	8015D	3.6	5.7	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-10	10/30/19	8015D/300.0	0.35	40	<2.5	0.76	1000	<0.5	<0.5	<2.5
	08/22/19	8015D/300.0	3	35	<5.0	0.91	960	<0.5	0.1	<2.5
	05/13/19	8015D/300.0	3.5	48	<5.0	1	460	<0.5	<0.5	<2.5
	03/26/19	8015D/300.0	2.6	50	<5.0	1.1	390	<0.5	<0.5	0.4
	11/20/18	8015D/300.0	2.8	53	<5.0	<0.5	320	0.12	<0.5	<2.5
	09/04/18	8015D/300.0	2.5	57	<5.0	0.85	340	<0.5	<0.5	<2.5
	05/02/18	8015D/300.0	3.7	100	<5.0	<0.5	380	<0.5	<0.5	<2.5
	02/14/18	8015D/300.0	2.6	74	<5.0	<0.5	390	<0.5	<0.5	<2.5
	11/28/17	8015D/300.0	3.5	83	<5.0	1.1	370	<1.0	<1.0	<2.5
	09/28/17	8015D/300.0	3.6	74	<5.0	<0.5	330	<0.5	<0.5	0.55
	06/08/17	8015D/300.0	3.5	100	<5.0	0.49	310	<1.0	<1.0	0.25
	03/02/17	8015D/300.0	5.3	110	<5.0	0.35	350	<1.0	<1.0	0.3
	11/02/16	8015D/300.0	3.8	100	<5.0	<0.05	230	<0.5	<0.5	<2.5
	09/11/16	8015D/300.0	6	110	<5.0	<2.0	240	<1.0	<1.0	<2.5
	06/09/16	8015D/300.0	8	110	<5.0	<2.0	260	<1.0	<1.0	0.4
	02/29/16	8015D/300.0	14	110	<5.0	<2.0	280	<1.0	<1.0	<2.5
	11/03/15	8015D/300.0	8	100	<5.0	<2.0	380	<0.5	<0.5	<2.5
	08/18/15	8015D/300.0	55	130	<5.0	<5.0	390	<0.5	<0.5	<2.5
	06/04/15	8015D	23	79	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	32	80	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	74	84	<5.0	270	260	<2.0	<2.0	<5.0
09/18/14	8015D	7.7	88	<5.0	NA	NA	NA	NA	NA	
6/6/2014 <sup>1</sup>	8015D	5.5	64	<5.0	NA	NA	NA	NA	NA	
04/11/14	8015D	5.9	88	<5.0	NA	NA	NA	NA	NA	
MKTF-11	10/30/19	8015D/300.0	0.18	32	<2.5	1.4	750	<0.5	<0.5	4.4
	08/21/19	8015D/300.0	1.4	35	<5.0	1.3	620	0.57	<0.5	1.8
	05/13/19	8015D/300.0	1.5	28	<5.0	<0.5	760	<0.5	<0.5	6.3
	03/26/19	8015D/300.0	1.4	38	<5.0	<0.5	730	<0.5	<0.5	3.5
	11/20/18	8015D/300.0	1.7	41	<5.0	<0.5	1200	0.35	<0.5	1.7
	09/04/18	8015D/300.0	1.6	53	<5.0	0.75	1200	<0.5	<0.5	2
	05/02/18	8015D/300.0	2.5	72	<5.0	<0.5	850	<0.5	0.21	1.4
	02/08/18	8015D/300.0	2.2	69	<5.0	<0.5	740	0.21	0.21	1.5
	11/28/17	8015D/300.0	2.1	59	<5.0	<0.5	860	0.27	0.27	1.2
	09/26/17	8015D/300.0	2.8	63	<5.0	<0.5	820	<1.0	<1.0	<2.5
	06/08/17	8015D/300.0	1.8	30	<5.0	<2.0	630	<1.0	<1.0	4.3
	03/02/17	8015D/300.0	1.7	27	<5.0	<0.5	650	<1.0	<1.0	3.4
	11/02/16	8015D/300.0	1.6	27	<5.0	<0.5	900	<0.5	<0.5	2.2
	09/11/16	8015D/300.0	1.7	29	<5.0	<2.0	880	<1.0	<1.0	2.2
	06/09/16	8015D/300.0	1.4	39	<5.0	<2.0	1000	<1.0	<1.0	2.2
	02/29/16	8015D/300.0	1.5	42	<5.0	<0.5	1600	<1.0	<1.0	0.58
	11/03/15	8015D/300.0	2.9	71	<5.0	<2.0	740	<0.5	<0.5	<2.5
	08/18/15	8015D/300.0	1.6	36	<5.0	<2.0	1200	<2.0	<0.1	1.2
	06/04/15	8015D	2.8	71	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	2.6	55	<5.0	NA	NA	NA	NA	NA
	11/13/14	8015D/300.0	1.8	35	<5.0	6.5	780	<1.0	<1.0	<5.0
	09/15/14	8015D	1.8	57	<5.0	NA	NA	NA	NA	NA
	06/05/14	8015D/300.0	2.6	48	<5.0	7	480	<1.0	<1.0	11
	04/11/14	8015D	2.7	53	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-13	10/28/19	8015D/300.0	7.3	23	<2.5	0.38	290	<0.5	<0.5	0.59
	08/20/19	--	SPH Detected - No samples were collected.							
	05/09/19	8015D/300.0	63	19	<5.0	<0.5	400	<0.5	<0.5	1.1
	03/26/19	8015D/300.0	8.1	27	<5.0	<0.5	390	<1.0	<1.0	0.75
	11/28/18	8015D/300.0	4.5	24	<5.0	<0.5	220	0.1	<0.5	<2.5
	08/30/18	8015D/300.0	5.5	26	<5.0	0.28	210	<0.5	0.12	<2.5
	05/10/18	8015D/300.0	30	28	<5.0	0.29	190	<0.5	0.21	1.2
	03/15/17	8015D/300.0	48	28	<5.0	0.27	120	<0.5	<0.5	<2.5
MKTF-15	10/30/19	--	SPH Detected - No samples were collected.							
	08/21/19	--	SPH Detected - No samples were collected.							
	05/13/19	8015D/300.0	9.7	72	<5.0	<0.5	3900	<2.0	<0.5	0.44
	03/25/19	--	SPH Detected - No samples were collected.							
	08/28/18	8015D/300.0	2.7	78	<5.0	<2.0	6400	<2.0	<2.0	1.5
	05/02/18	8015D/300.0	4	97	<5.0	<0.5	7200	<2.0	<0.5	1.3
	11/28/17	8015D/300.0	5.3	130	<5.0	<2.0	6000	1.8	1.8	0.56
	06/08/17	8015D/300.0	5.9	150	<5.0	<2.0	4300	<4.0	<4.0	0.74
	03/02/17	8015D/300.0	8.8	140	<5.0	<2.0	3400	<2.0	<2.0	1
	11/02/16	8015D/300.0	6.2	110	<5.0	<0.05	2800	<2.0	<0.5	<2.5
	09/11/16	8015D/300.0	17	NA	<5.0	<2.0	3100	<4.0	<4.0	<2.5
	09/17/14	8015D	17	88	<5.0	NA	NA	NA	NA	NA
	06/05/14	8015D/300.0	10	57	<5.0	<2.0	5200	<4.0	<4.0	1.2
	04/10/14	8015D	4.1	71	<5.0	NA	NA	NA	NA	NA
	11/01/13	8015D	2.4	65	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-16	10/30/19	8015D/300.0	0.24	33	<2.5	0.81	1700	<0.5	<0.5	<2.5
	8/22 & 8/30/19	8015D/300.0	3.6	20	<5.0	0.67	1800	<2.0	<0.5	<2.5
	05/14/19	8015D/300.0	3.4	30	16	1.2	960	<0.5	<0.5	0.68
	02/20/19	8015D/300.0	2.2	48	<5.0	1.3	590	<0.5	<0.5	0.41
	11/29/18	8015D/300.0	2.6	34	<5.0	1.4	620	<0.5	<0.5	0.64
	08/31/18	8015D/300.0	3.3	50	<5.0	1.5	650	<1.0	<1.0	1.4
	05/11/18	8015D/300.0	2.9	47	<5.0	0.25	840	0.33	0.099	1.2
	02/15/18	8015D/300.0	2.4	8.4	<5.0	4.5	760	<0.5	0.13	57
	11/29/17	8015D/300.0	4	70	<5.0	0.63	700	<1.0	<1.0	<2.5
	09/26/17	8015D/300.0	4.7	78	<5.0	0.48	810	<1.0	<1.0	0.64
	06/08/17	8015D/300.0	4.3	60	<5.0	1.4	800	<1.0	<1.0	0.68
	03/14/17	8015D/300.0	5.9	85	<5.0	0.95	580	<2.0	<2.0	0.14
	11/03/16	8015D/300.0	3.3	70	<5.0	1.2	380	<0.5	<0.5	<2.5
	09/12/16	8015D/300.0	3.5	62	<5.0	1.3	390	<1.0	<1.0	0.36
	06/09/16	8015D	3	69	<5.0	NA	NA	NA	NA	NA
	02/29/16	8015D/300.0	2.6	73	<5.0	1	710	<1.0	<1.0	0.068
	11/03/15	8015D/300.0	3.1	91	<5.0	0.88	1000	<1.0	<1.0	<2.5
	08/23/15	8015D/300.0	3.7	83	<5.0	0.66	1700	<1.0	<1.0	<2.5
	06/08/15	8015D	4.3	69	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	2.9	61	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D/300.0	2.7	53	<5.0	1.5	700	<0.5	<0.5	<2.5
	09/17/14	8015D	4.6	66	<5.0	NA	NA	NA	NA	NA
	06/05/14	8015D/300.0	5.7	71	<5.0	1.1	540	<1.0	<1.0	<2.5
	04/10/14	8015D	3.5	67	<5.0	NA	NA	NA	NA	NA
	11/19/13	8015D	4.2	68	<5.0	NA	NA	NA	NA	NA
MKTF-17	10/29/19	8015D/300.0	0.7	78	<2.5	0.82	240	<0.5	<0.5	6.2
	08/20/19	8015D/300.0	3.3	7.6	<5.0	0.74	140	<0.5	<0.5	14
	05/09/19	8015D/300.0	7.6	9.1	5	0.71	100	<0.5	<0.5	15
	03/26/19	8015D/300.0	1.9	7	<5.0	0.7	130	<0.5	<0.5	48
	11/28/18	8015D/300.0	1.6	3	<5.0	0.9	110	0.075	<0.5	120
	08/24/18	8015D/300.0	<1.0	4.7	<5.0	0.55	110	<0.5	<0.5	160
	05/04/18	8015D/300.0	1.4	7.1	<5.0	0.26	130	<0.1	0.054	68
	02/16/18	8015D/300.0	1.36	3.7	<5.0	0.74	100	<0.5	<0.5	52
	12/01/17	8015D/300.0	1.1	2.5	<5.0	0.91	92	<1.0	<1.0	97
	09/26/17	8015D/300.0	2	4.3	<5.0	0.76	83	<1.0	<1.0	22
	06/14/17	8015D/300.0	2.2	4	<5.0	0.81	70	<1.0	<1.0	66
	03/15/17	8015D/300.0	2.4	3.5	<5.0	0.73	61	<0.1	<0.1	43
	11/08/16	8015D/300.0	1.3	4.5	<5.0	0.77	64	<1.0	<1.0	45
	09/13/16	8015D/300.0	1.6	7.5	<5.0	0.83	70	0.58	0.58	45
	06/10/16	8015D	2.1	9.2	<5.0	NA	NA	NA	NA	NA
	02/26/16	8015D/300.0	<1.0	1.6	<5.0	0.54	76	<1.0	<1.0	180
	11/03/15	8015D/300.0	1.5	2.5	<5.0	0.61	78	<0.1	<0.1	120
	08/18/15	8015D/300.0	1.1	1.7	<0.005	0.5	74	<0.1	<0.01	160
	06/08/15	8015D	1.3	0.77	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	0.8	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D/300.0	1.4	1.2	<5.0	0.66	84	<0.1	<0.1	200
	09/18/14	8015D	1.5	3.3	<5.0	NA	NA	NA	NA	NA
	6/6/2014: 6/16/14	8015D/300.0	4.2	8.3	<5.0	0.61	98	<0.1	<0.1	60
	04/09/14	8015D	2.6	8.6	<5.0	NA	NA	NA	NA	NA
	11/19/13	8015D	5.8	17	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-18	10/29/19	8015D/300.0	0.2	0.73	<2.5	0.76	220	<0.5	<0.5	0.57
	08/19/19	8015D/300.0	SPH Detected - No samples were collected.							
	05/16/19	8015D/300.0	3.3	0.69	<5.0	0.59	190	<0.5	<0.5	<2.5
	03/26/19	8015D/300.0	1.7	1	<5.0	0.68	210	<0.5	<0.5	0.48
	11/28/18	8015D/300.0	<1.0	0.12	<5.0	0.73	220	0.1	<0.5	<2.5
	08/24/18	8015D/300.0	1.6	0.97	<5.0	0.51	230	<0.5	<0.5	<2.5
	05/04/18	8015D/300.0	2.4	0.8	<5.0	0.49	230	<0.1	0.051	0.41
	02/16/18	8015D/300.0	2.8	0.85	<5.0	0.61	220	<0.5	<0.5	<2.5
	06/14/17	8015D/300.0	7.1	0.83	<5.0	<0.5	190	<1.0	<1.0	0.53
	03/01/17	8015D/300.0	2.7	0.81	<5.0	0.62	180	<1.0	<1.0	0.22
	11/08/16	8015D/300.0	1.7	0.6	<5.0	0.62	160	<1.0	<1.0	0.23
	09/13/16	8015D/300.0	2.2	0.56	<5.0	0.67	170	<1.0	<1.0	0.34
	06/10/16	8015D/300.0	1.9	0.71	<5.0	0.63	180	<1.0	<1.0	0.21
	02/26/16	8015D/300.0	0.3	0.79	<5.0	0.64	160	<1.0	<1.0	0.26
	11/03/15	8015D/300.0	2.5	1.3	<5.0	0.61	160	<0.1	<0.1	<0.5
	08/18/15	8015D/300.0	34	1.3	<5.0	0.55	170	<0.1	<0.1	<0.5
	06/08/15	8015D	3.3	1.4	<5.0	NA	NA	NA	NA	NA
	03/17/15	8015D	5.4	1.8	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D/300.0	2.3	1.4	<5.0	0.68	160	<0.5	<0.5	<2.5
	09/18/14	8015D	3.1	1.4	<5.0	NA	NA	NA	NA	NA
	06/06/14	8015D/300.0	7.8	2.2	<5.0	0.65	170	<1.0	<1.0	0.95
	04/14/14	8015D	4.4	2.2	<5.0	NA	NA	NA	NA	NA
	11/19/13	8015D	11	4	<5.0	NA	NA	NA	NA	NA
MKTF-19	10/28/19	8015D/300.0	1	17	<2.5	<0.5	130	<0.5	<0.5	0.5
	08/19/19	8015D/300.0	13	18	<5.0	<0.5	140	<0.5	<0.5	<2.5
	05/09/19	8015D/300.0	11	19	<5.0	<0.5	140	<0.5	<0.5	0.31
	03/26/19	8015D/300.0	8.7	17	<5.0	<0.5	140	<0.5	<0.5	0.34
	11/28/18	8015D/300.0	7.8	15	<5.0	<0.5	140	0.084	<0.5	<2.5
	08/24/18	8015D/300.0	7.9	22	<5.0	<0.5	120	<0.5	<0.5	<2.5
	05/04/18	8015D/300.0	9.3	23	<5.0	<0.5	130	<0.5	<0.5	1.2
	02/16/18	8015D/300.0	11	16	<5.0	<0.5	120	<0.5	<0.5	<2.5
	12/01/17	8015D/300.0	13	24	<5.0	<0.5	120	0.14	0.14	0.67
	09/26/17	8015D/300.0	11	29	<5.0	<0.5	120	<1.0	<1.0	0.77
	06/14/17	8015D/300.0	11	23	<5.0	<0.5	130	<1.0	<1.0	0.73
	03/15/17	8015D/300.0	14	25	<5.0	0.098	130	<0.1	<0.1	0.52
	11/08/16	8015D/300.0	6.7	26	<5.0	0.28	110	<1.0	<1.0	0.89
	09/13/16	8015D/300.0	7.3	25	<5.0	0.34	130	<1.0	<1.0	0.57
	06/10/16	8015D/300.0	7.2	21	<5.0	0.17	150	<1.0	<1.0	0.28
	02/25/16	8015D/300.0	7.8	22	<5.0	0.24	150	<1.0	<1.0	<2.5
	11/03/15	8015D/300.0	13	34	<5.0	<0.5	130	<0.5	<0.5	<2.5
	08/18/15	8015D/300.0	27	20	<5.0	0.18	140	<0.1	0.17	<0.5
	06/08/15	8015D	9.9	19	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	9.3	14	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D/300.0	13	20	<5.0	<0.5	110	<0.5	<0.5	<2.5
	09/24/14	8015D	61	16	<5.0	NA	NA	NA	NA	NA
	04/09/14	8015D	17	18	<5.0	NA	NA	NA	NA	NA
	11/05/13	8015D	7.2	10	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-20	11/05/19	8015D/300.0	1.5	7	<2.5	<0.5	140	<0.5	<0.5	1.7
	08/21/19	8015D/300.0	5.1	28	<5.0	<0.5	3300	3.3	<0.5	2.8
	05/14/19	8015D/300.0	5.4	25	<5.0	1.2	3400	<2.0	<0.5	36
	02/20/19	8015D/300.0	9.8	7.3	<5.0	<0.5	760	<0.5	<0.5	11
	11/29/18	8015D/300.0	6.9	17	<5.0	4.2	460	<0.5	<0.5	4.3
	08/31/18	8015D/300.0	11	70	<5.0	3.3	560	<0.5	<0.5	8.4
	05/11/18	8015D/300.0	9.7	76	<5.0	2.4	1600	0.63	0.097	18
	02/15/18	8015D/300.0	5.1	79	<5.0	0.55	3100	<2.0	<0.5	15
	11/29/17	8015D/300.0	22	91	<5.0	2.1	420	<1.0	<1.0	1
	09/26/17	8015D/300.0	3.9	78	<5.0	2.2	590	<1.0	<1.0	73
	06/12/17	8015D/300.0	5.3	95	<5.0	2	580	<1.0	<1.0	0.64
	03/14/17	8015D/300.0	16	90	<5.0	1	1100	<0.5	<0.5	5
	11/03/16	8015D/300.0	9.4	65	<5.0	2.6	1500	<0.5	<0.5	13
	09/12/16	8015D/300.0	8.7	72	<5.0	2.1	370	<1.0	<1.0	1.2
	06/09/16	8015D/300.0	9	63	<5.0	3.1	450	<1.0	<1.0	10
	03/01/16	8015D	6.9	73	<5.0	NA	NA	NA	NA	NA
	06/08/15	8015D	9.9	30	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	4.5	37	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D/300.0	24	45	<5.0	0.87	82	<0.5	<0.5	16
	04/11/14	8015D	16	120	<5.0	NA	NA	NA	NA	NA
MKTF-21	11/05/19	8015D/300.0	2.7	27	<2.5	2.4	2300	<0.5	<0.5	19
	08/22/19	8015D/300.0	7.4	17	<5.0	<0.5	230	<0.5	<0.5	6.2
	05/14/19	8015D/300.0	9.4	8.5	<5.0	<0.5	540	<0.5	<0.5	6.9
	02/20/19	8015D/300.0	20	40	<5.0	<0.5	4600	1.6	<0.5	880
	11/29/18	8015D/300.0	3.8	7.2	<5.0	0.89	340	<0.5	<0.5	8.6
	08/31/18	8015D/300.0	2.9	22	<5.0	0.43	330	<0.5	<0.5	7.1
	05/11/18	8015D/300.0	3.9	17	<5.0	<0.5	190	<0.5	0.12	4.3
	02/15/18	8015D/300.0	3.2	12	<5.0	<0.5	210	<0.5	<0.5	23
	11/28/17	8015D/300.0	2.6	25	<5.0	<0.5	210	<1.0	<1.0	7
	09/26/17	8015D/300.0	2	24	<5.0	<0.5	230	<1.0	<1.0	2
	06/21/17	8015D/300.0	6.2	30	<5.0	<0.5	310	<1.0	<1.0	1.1
	03/14/17	8015D/300.0	4	37	<5.0	<0.5	440	<0.5	<0.5	3.4
	11/03/16	8015D/300.0	3.4	34	<5.0	0.91	110	<0.5	<0.5	3.9
	09/12/16	8015D/300.0	3.9	28	<5.0	<0.5	81	<1.0	<1.0	19
	06/09/16	8015D	3.9	32	<5.0	NA	NA	NA	NA	NA
	03/01/16	8015D	3.6	24	<5.0	NA	NA	NA	NA	NA
	06/10/15	--	Not enough water to collect for this set.							
	03/16/15	8015D	3.8	16	<5.0	NA	NA	NA	NA	NA
	04/11/14	8015D	27	78	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-22	10/24/19	8015D/300.0	0.28	9	<2.5	0.41	190	<0.5	<0.5	2.9
	08/20/19	8015D/300.0	2.4	8.2	<5.0	0.4	200	<0.5	<0.5	4.7
	05/09/19	8015D/300.0	2.6	11	<5.0	0.39	170	<0.5	<0.5	13
	03/26/19	8015D/300.0	2.9	10	<5.0	0.38	150	<0.5	<0.5	7.6
	11/28/18	8015D/300.0	2	11	<5.0	<0.5	130	0.079	<0.5	5.8
	08/30/18	8015D/300.0	3.1	11	<5.0	0.35	110	<0.5	1.7	3.8
	05/10/18	8015D/300.0	3.5	11	<5.0	0.27	110	<0.1	0.15	5.8
	02/08/18	8015D/300.0	2.9	10	<5.0	0.24	110	<1.0	<1.0	5.2
	11/28/17	8015D/300.0	2.4	13	<5.0	0.34	100	<1.0	<1.0	3.3
	10/03/17	8015D/300.0	2.5	13	<5.0	0.28	110	<1.0	<1.0	7.6
	06/08/17	8015D/300.0	3	14	<5.0	0.25	100	<1.0	<1.0	6
	03/08/17	8015D/300.0	3	23	<5.0	0.33	100	<1.0	<1.0	2
	11/01/16	8015D/300.0	2.1	26	<5.0	0.41	100	<0.1	<0.1	3.3
	09/10/16	8015D/300.0	2.7	17	<5.0	0.23	98	<1.0	<1.0	4.1
	06/10/16	8015D/300.0	2.5	27	<5.0	0.37	99	<1.0	<1.0	4.2
	02/25/16	8015D/300.0	2.7	24	<5.0	0.37	95	<1.0	<1.0	4.7
	11/09/15	8015D/300.0	1.6	14	<5.0	0.41	100	<0.1	<0.1	17
	08/20/15	8015D/300.0	<1.0	9.3	<5.0	<0.5	120	<1.0	<1.0	48
	06/09/15	8015D	2.5	15	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	2.5	13	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	1.6	6.8	<5.0	0.38	96	7.1	7.1	19
	04/10/14	8015D	2.6	10	<5.0	NA	NA	NA	NA	NA
	11/19/13	8015D	2.1	6.5	<5.0	NA	NA	NA	NA	NA
MKTF-23	10/29/19	8015D/300.0	2200	55	<120	0.75	440	<0.5	<0.5	1.7
	08/20/19	--	SPH Detected - No samples were collected.							
	05/09/19	--	SPH Detected - No samples were collected.							
	03/26/19	8015D/300.0	15	60	<5.0	<0.5	390	<0.5	<0.5	2.6
	06/10/16	8015D/300.0	710	38	<50	0.75	240	<1.0	<1.0	0.36
	02/25/16	8015D/300.0	56	32	<5.0	0.69	240	<1.0	<1.0	0.38
	11/9 & 10/2015	8015D/300.0	71	34	<5.0	1	250	<0.1	<0.1	14
	08/21/15	8015D/300.0	35	29	<5.0	0.57	300	<1.0	<1.0	<2.5
	06/09/15	8015D	23	32	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	14	35	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	7.7	26	<5.0	0.43	390	<1.0	<1.0	5.9
	09/23/14	8015D	14	23	<5.0	NA	NA	NA	NA	NA
	11/05/13	8015D	1.1	12	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-24	10/23/19	8015D/300.0	<0.40	17	<2.5	0.15	660	<0.5	<0.5	20
	08/23/19	8015D/300.0	0.94	15	<5.0	<0.5	800	0.8	<0.5	34
	05/06/19	8015D/300.0	0.65	8.6	<5.0	<0.5	1000	<0.5	<0.5	42
	02/25/19	--	Well not sampled.							
	11/15/18	8015D/300.0	1.5	16	<5.0	<0.5	520	<0.5	<0.5	27
	08/20/18	8015D/300.0	1.4	23	<5.0	<0.5	560	<0.5	<0.5	30
	05/01/18	8015D/300.0	1.4	23	<5.0	<0.1	500	<2.0	0.17	29
	02/06/18	8015D/300.0	1.1	21	<5.0	<0.5	430	<1.0	<1.0	30
	11/20/17	8015D/300.0	1	28	<5.0	<0.5	560	<1.0	<1.0	34
	10/03/17	8015D/300.0	0.56	10	<5.0	<0.5	800	<1.0	<1.0	64
	06/05/17	8015D/300.0	1.8	23	<5.0	<0.1	620	<1.0	<1.0	43
	03/29/17	8015D/300.0	0.74	8.2	<5.0	<0.1	800	<1.0	<1.0	59
	10/28/16	8015D/300.0	1.1	30	<5.0	0.078	440	<1.0	<1.0	46
	09/07/16	8015D/300.0	1.2	19	<5.0	<0.1	630	<1.0	<1.0	51
	06/08/16	8015D/300.0	<1.0	14	<5.0	0.097	700	<1.0	<1.0	60
	02/22/16	8015D/300.0	1.5	29	<5.0	0.058	650	<1.0	<1.0	50
	11/04/15	8015D/300.0	<1.0	10	<5.0	<0.1	850	<1.0	<1.0	68
	08/20/15	8015D/300.0	<1.0	9.5	<5.0	<0.5	850	<1.0	<1.0	72
	06/10/15	8015D	<1.0	9.8	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	9.2	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	<1.0	5.7	<5.0	<1.0	630	<1.0	<1.0	72
	09/24/14	8015D	<1.0	6.3	<5.0	NA	NA	NA	NA	NA
	04/08/14	8015D	<1.0	4.2	<5.0	NA	NA	NA	NA	NA
	11/01/13	8015D	1.5	8.4	<5.0	NA	NA	NA	NA	NA
MKTF-25	10/23/19	8015D/300.0	<0.4	3	<2.5	<0.5	1400	<0.5	<0.5	73
	08/27/19	8015D/300.0	<1.0	1.7	<5.0	<0.5	1100	0.88	<0.5	68
	05/06/19	8015D/300.0	0.4	3.6	<5.0	<0.5	860	<0.5	<0.5	52
	02/14/19	--	Well not sampled.							
	11/15/18	8015D/300.0	<1.0	5	<5.0	<0.5	630	<0.5	<0.5	50
	08/17/18	8015D/300.0	1	17	<5.0	<0.5	540	<0.5	<0.5	23
	05/06/18	8015D/300.0	1.1	12	<5.0	<0.1	500	<1.0	<1.0	28
	02/05/18	8015D/300.0	0.58	16	<5.0	<0.5	520	<1.0	<1.0	27
	11/21/17	8015D/300.0	0.78	17	<5.0	<0.5	550	<0.5	<0.5	29
	09/25/17	8015D/300.0	1	16	<5.0	0.25	500	<1.0	<1.0	31
	06/05/17	8015D/300.0	1.2	8.4	<5.0	0.054	420	<1.0	<1.0	130
	03/29/17	8015D/300.0	0.95	7.8	<5.0	0.095	380	<1.0	<1.0	100
	11/01/16	8015D/300.0	0.88	10	<5.0	0.052	530	<1.0	<1.0	36
	09/09/16	8015D/300.0	0.94	7.1	<5.0	0.073	560	<1.0	<1.0	34
	06/09/16	8015D/300.0	0.89	13	<5.0	0.18	680	<1.0	<1.0	35
	02/23/16	8015D/300.0	1.1	14	<5.0	0.12	670	<1.0	<1.0	31
	11/05/15	8015D/300.0	1.2	12	<5.0	<0.1	750	<1.0	<1.0	35
	08/21/15	8015D/300.0	1.1	8.7	<5.0	<0.5	870	<1.0	<1.0	31
	06/10/15	8015D	<1.0	11	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	1.1	10	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	<1.0	4.8	<5.0	<1.0	880	<1.0	<1.0	35
	09/23/14	8015D	<1.0	5.8	<5.0	NA	NA	NA	NA	NA
	04/08/14	8015D	1.2	6.9	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-26	06/09/16	8015D/300.0	<1.0	1.5	<5.0	0.15	2300	<1.0	<1.0	230
	02/22/16	8015D/300.0	<1.0	1.5	<5.0	0.2	2000	11	11	210
	11/04/15	8015D/300.0	<1.0	2.3	<5.0	0.69	1000	<1.0	<1.0	94
	08/20/15	8015D/300.0	<1.0	1.5	<5.0	<0.5	1800	<1.0	<1.0	220
	06/10/15	8015D	<1.0	2.5	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	2.5	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	<1.0	2	<5.0	<1.0	1500	<2.0	<2.0	160
	09/24/14	8015D	<1.0	2.8	<5.0	NA	NA	NA	NA	NA
	04/08/14	8015D	<1.0	0.2	<5.0	NA	NA	NA	NA	NA
11/01/13	8015D	<1.0	1.7	<5.0	NA	NA	NA	NA	NA	
MKTF-27	10/23/19	8015D/300.0	<0.40	<0.05	<2.5	1.4	2900	<0.5	1.2	570
	08/21/19	8015D/300.0	<1.0	0.035	<5.0	0.7	3400	3.2	2.8	770
	05/06/19	8015D/300.0	<1.0	<0.05	<5.0	0.63	4000	<2.0	5.5	980
	03/28/19	8015D/300.0	0.48	<0.05	<5.0	<0.5	3500	8.1	8.1	1200
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	0.83	3100	<2.0	0.64	270
	08/20/18	8015D/300.0	<1.0	0.033	<5.0	<0.5	4000	<2.0	0.61	300
	05/01/18	8015D/300.0	<1.0	0.028	<5.0	<0.5	4800	<2.0	2.3	450
	02/06/18	8015D/300.0	<1.0	0.014	<5.0	0.84	2300	1.7	1.7	200
	11/20/17	8015D/300.0	<1.0	0.036	<5.0	<0.5	3200	0.51	0.51	290
	10/03/17	8015D/300.0	<1.0	0.013	<5.0	<0.5	2900	<2.0	<2.0	290
	06/05/17	8015D/300.0	<1.0	0.03	<5.0	0.27	3800	2.5	2.5	410
	03/29/17	8015D/300.0	<1.0	0.022	<5.0	<0.1	5000	3.7	3.7	600
	10/28/16	8015D/300.0	<1.0	0.034	<5.0	0.94	2200	1.4	1.4	410
	09/07/16	8015D/300.0	<1.0	0.068	<5.0	0.29	2600	<2.0	<2.0	400
	06/08/16	8015D/300.0	<0.001	0.084	<0.005	1.2	2800	1.1	1.1	350
	02/22/16	8015D/300.0	<1.0	<0.05	<5.0	0.8	2400	1	1	360
	11/04/15	8015D/300.0	<1.0	<0.05	<5.0	0.8	2700	<1.0	<1.0	450
	08/20/15	8015D/300.0	<1.0	0.064	<5.0	0.81	2700	<1.0	<1.0	330
	06/09/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/14/14	8015D/300.0	<1.0	<0.05	<5.0	<1.0	2500	<2.0	<2.0	470
	09/24/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	04/08/14	8015D	<1.0	<0.01	<5.0	NA	NA	NA	NA	NA
	11/19/13	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-28	10/22/19	8015D/300.0	<0.4	<0.05	<2.5	1.2	460	<0.5	<0.5	190
	08/21/19	8015D/300.0	<1.0	<0.05	<5.0	1.2	470	0.49	0.91	180
	05/06/19	8015D/300.0	<1.0	<0.05	<5.0	1.2	470	<0.5	1.1	200
	03/28/19	8015D/300.0	<1.0	<0.05	<5.0	0.97	420	1.2	1.2	180
	11/18/18	8015D/300.0	<1.0	<0.05	<5.0	1.4	400	<0.5	1.7	180
	08/20/18	8015D/300.0	<1.0	0.024	<5.0	0.48	540	<0.5	1.3	240
	05/01/18	8015D/300.0	<1.0	<0.05	<5.0	0.83	400	<0.5	2.7	150
	02/06/18	8015D/300.0	<1.0	<0.05	<5.0	1	380	2.7	2.7	180
	11/20/17	8015D/300.0	<1.0	<0.05	<5.0	1	410	1.9	1.9	180
	10/03/17	8015D/300.0	<1.0	<0.05	<5.0	0.95	390	1.6	1.6	150
	06/05/17	8015D/300.0	<1.0	<0.05	<5.0	0.85	420	1.2	1.2	160
	03/29/17	8015D/300.0	<1.0	<0.05	<5.0	0.87	410	1	1	160
	10/28/16	8015D/300.0	<1.0	<0.05	<5.0	1.3	370	1.1	1.1	130
	09/08/16	8015D/300.0	<1.0	0.023	<5.0	0.66	470	0.73	0.73	190
	06/08/16	8015D/300.0	<1.0	<0.05	<5.0	0.93	490	0.84	0.84	160
	02/23/16	8015D/300.0	<1.0	<0.05	<5.0	0.93	500	4.9	4.9	160
	11/04/15	8015D/300.0	<1.0	<0.05	<5.0	0.86	510	<1.0	<1.0	160
	08/20/15	8015D/300.0	<1.0	<0.05	<5.0	0.86	520	<1.0	<1.0	150
	06/09/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
11/14/14	8015D/300.0	<1.0	<0.05	<5.0	<1.0	540	<1.0	<1.0	260	
09/24/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA	
MKTF-29	10/22/19	8015D/300.0	<0.40	<0.05	<2.5	0.42	1000	<0.5	<0.5	320
	08/23/19	8015D/300.0	0.39	<0.05	<5.0	0.71	610	0.46	0.097	440
	05/06/19	8015D/300.0	0.36	<0.05	<5.0	0.76	260	<0.5	<0.5	540
	03/28/19	8015D/300.0	0.51	<0.05	<5.0	0.54	190	<1.0	<1.0	540
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	0.8	210	<0.5	<0.5	630
	08/20/18	8015D/300.0	<1.0	0.021	<5.0	0.57	200	<0.5	0.31	520
	05/01/18	8015D/300.0	0.66	<0.05	<5.0	0.68	160	<0.5	0.21	460
	02/06/18	8015D/300.0	<1.0	0.021	<5.0	0.81	160	<1.0	<1.0	560
	11/20/17	8015D/300.0	<1.0	<0.05	<5.0	0.63	150	<1.0	<1.0	780
	10/03/17	8015D/300.0	0.37	<0.05	<5.0	0.6	150	0.14	0.14	880
	06/05/17	8015D/300.0	1	<0.05	<5.0	0.68	150	<1.0	<1.0	670
	03/29/17	8015D/300.0	0.43	0.012	<5.0	0.75	100	<1.0	<1.0	640
	10/28/16	8015D/300.0	<1.0	<0.05	<5.0	1.1	80	<1.0	<1.0	560
	09/07/16	8015D/300.0	<1.0	0.029	<5.0	0.85	81	<1.0	<1.0	590
	06/09/16	8015D/300.0	<1.0	<0.05	<5.0	1.1	82	<1.0	<1.0	650
	02/02/16	8015D/300.0	<1.0	<0.05	<5.0	0.96	91	<1.0	<1.0	640
	11/04/15	8015D/300.0	<1.0	<0.05	<5.0	0.92	90	<1.0	<1.0	650
	08/20/15	8015D/300.0	<1.0	<0.05	<5.0	0.83	95	<1.0	<1.0	440
	06/10/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	09/24/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	04/09/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-30	10/23/19	8015D/300.0	<0.40	0.031	<2.5	1.1	480	<0.5	<0.5	480
	08/23/19	8015D/300.0	<1.0	0.047	<5.0	1.3	480	0.37	0.22	570
	05/06/19	8015D/300.0	<1.0	0.043	<5.0	1.2	410	<0.5	<0.5	540
	03/28/19	8015D/300.0	<1.0	0.036	<5.0	0.93	410	<1.0	<1.0	510
	11/15/18	8015D/300.0	<1.0	0.04	<5.0	1.2	460	<0.5	<0.5	490
	08/20/18	8015D/300.0	<1.0	0.12	<5.0	0.54	510	<1.0	<1.0	430
	05/01/18	8015D/300.0	<1.0	0.023	<5.0	1.3	400	<1.0	<1.0	480
	02/06/18	8015D/300.0	<1.0	0.1	<5.0	1.2	550	0.31	0.31	390
	11/20/17	8015D/300.0	<1.0	0.075	<5.0	0.88	620	0.44	0.44	410
	10/03/17	8015D/300.0	<1.0	0.1	<5.0	0.79	630	<2.0	<2.0	510
	06/05/17	8015D/300.0	<1.0	0.048	<5.0	1	620	0.3	0.3	560
	03/29/17	8015D/300.0	<1.0	0.14	<5.0	0.8	740	0.24	0.24	360
	10/28/16	8015D/300.0	<1.0	0.14	<5.0	1.1	810	<1.0	<1.0	400
	09/07/16	8015D/300.0	<1.0	0.23	<5.0	0.79	970	<1.0	<1.0	330
	06/09/16	8015D/300.0	<1.0	0.095	<5.0	1.3	890	<1.0	<1.0	330
	02/23/16	8015D/300.0	<1.0	0.13	<5.0	1.1	1100	<1.0	<1.0	320
	11/04/15	8015D/300.0	<1.0	0.11	<5.0	0.99	1300	<1.0	<1.0	380
	08/20/15	8015D/300.0	<1.0	0.17	<5.0	0.79	1300	<1.0	<1.0	450
	06/10/15	8015D	<1.0	0.071	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	0.053	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	<1.0	0.054	<5.0	0.56	1400	<1.0	<1.0	730
09/24/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA	
04/09/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA	
MKTF-31	10/22/19	8015D/300.0	<0.40	0.096	<2.5	<0.5	770	<0.5	0.095	72
	08/23/19	8015D/300.0	0.84	0.14	<5.0	0.12	820	0.91	<0.5	82
	05/06/19	8015D/300.0	<1.0	0.13	<5.0	<0.5	1200	<0.5	0.25	110
	02/20/19	8015D/300.0	<1.0	0.14	<5.0	<0.5	760	<0.5	<0.5	65
	11/15/18	8015D/300.0	<1.0	0.12	<5.0	<0.5	810	<0.5	<0.5	67
	08/17/18	8015D/300.0	<1.0	0.22	<5.0	<0.5	840	<0.5	<0.5	64
	05/06/18	8015D/300.0	<1.0	0.32	<5.0	<0.1	750	<1.0	<1.0	63
	02/05/18	8015D/300.0	<1.0	0.19	<5.0	<0.5	750	<1.0	<1.0	63
	11/21/17	8015D/300.0	<1.0	0.23	<5.0	<0.5	890	<0.5	<0.5	76
	09/25/17	8015D/300.0	<1.0	0.2	<5.0	<0.5	770	<1.0	<1.0	76
	06/05/17	8015D/300.0	0.47	0.15	<5.0	<0.1	1200	<1.0	<1.0	98
	03/07/17	8015D/300.0	<1.0	0.19	<5.0	<0.1	1100	<1.0	<1.0	87
	10/31/16	8015D/300.0	<1.0	0.16	<5.0	<0.1	720	<2.0	<2.0	70
	09/08/16	8015D/300.0	<1.0	0.23	<5.0	<0.1	940	<1.0	<1.0	70
	06/09/16	8015D/300.0	<1.0	0.16	<5.0	<0.1	770	<1.0	<1.0	69
	02/23/16	8015D/300.0	<1.0	0.1	<5.0	<0.1	830	<1.0	<1.0	68
	11/04/15	8015D/300.0	1.3	0.086	<5.0	<0.1	850	<1.0	<1.0	69
	08/21/15	8015D/300.0	<1.0	0.1	<5.0	<0.5	890	<1.0	<1.0	71
	06/10/15	8015D	<1.0	0.11	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	0.077	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	<1.0	0.068	<5.0	<0.1	920	<1.0	<1.0	82
	09/23/14	8015D	<1.0	0.061	<5.0	NA	NA	NA	NA	NA
	04/08/14	8015D	<1.0	0.11	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-32	10/23/19	8015D/300.0	<0.40	0.28	<2.5	0.37	400	<0.5	<0.5	90
	08/20/19	8015D/300.0	<1.0	0.5	<5.0	0.28	400	<0.5	0.41	92
	05/07/19	8015D/300.0	<1.0	0.47	<5.0	<0.5	450	0.3	<0.5	93
	02/13/19	8015D/300.0	<1.0	0.43	<5.0	0.29	420	<0.5	<0.5	89
	11/15/18	8015D/300.0	<1.0	0.56	<5.0	<0.5	370	<0.5	<0.5	89
	08/28/18	8015D/300.0	<1.0	0.7	<5.0	<0.5	440	<0.5	<0.5	94
	05/09/18	8015D/300.0	<1.0	0.64	<5.0	0.049	430	<1.0	<1.0	83
	02/07/18	8015D/300.0	<1.0	0.65	<5.0	<5.0	420	<1.0	<1.0	93
	11/27/17	8015D/300.0	<1.0	0.86	<5.0	<5.0	420	<1.0	<1.0	99
	09/25/17	8015D/300.0	<1.0	0.73	<5.0	0.32	420	<1.0	<1.0	100
	06/06/17	8015D/300.0	<1.0	0.71	<5.0	0.31	480	<1.0	<1.0	92
	03/07/17	8015D/300.0	<1.0	0.92	<5.0	0.17	400	<1.0	<1.0	91
	10/31/16	8015D/300.0	<1.0	0.92	<5.0	0.16	420	<1.0	<1.0	95
	09/09/16	8015D/300.0	<1.0	0.79	<5.0	0.18	460	<1.0	<1.0	91
	06/09/16	8015D/300.0	<1.0	0.81	<5.0	0.28	520	<1.0	<1.0	100
	02/24/16	8015D/300.0	<1.0	0.88	<5.0	0.28	450	<1.0	<1.0	91
	11/05/15	8015D/300.0	<1.0	0.57	<5.0	0.19	510	<1.0	<1.0	100
	08/21/15	8015D/300.0	<1.0	0.42	<5.0	<0.5	580	<1.0	<1.0	110
	06/09/15	8015D	<1.0	0.58	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	0.46	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	<1.0	0.28	<5.0	0.27	610	<1.0	<1.0	100
09/23/14	8015D	<1.0	0.23	<5.0	NA	NA	NA	NA	NA	
04/09/14	8015D	<1.0	0.22	<5.0	NA	NA	NA	NA	NA	
MKTF-33	10/24/19	8015D/300.0	<0.4	0.49	<2.5	0.38	110	<0.5	<0.5	190
	08/20/19	8015D/300.0	<1.0	0.53	<5.0	0.29	110	<0.5	0.14	170
	05/09/19	8015D/300.0	<1.0	0.21	<5.0	0.33	110	<0.5	0.16	240
	03/26/19	8015D/300.0	<1.0	0.46	<5.0	0.29	100	<0.5	<0.5	180
	11/28/18	8015D/300.0	0.69	0.24	<5.0	<0.5	97	<0.5	<0.5	220
	08/30/18	8015D/300.0	1.3	0.49	<5.0	0.22	93	<0.5	0.23	230
	05/10/18	8015D/300.0	1.5	0.5	<5.0	0.15	100	<0.1	0.15	210
	02/08/18	8015D/300.0	<1.0	0.22	<5.0	<0.5	100	0.18	0.18	280
	11/28/17	8015D/300.0	<1.0	0.35	<5.0	0.23	96	0.32	0.32	250
	09/25/17	8015D/300.0	<1.0	0.26	<5.0	0.33	93	0.24	0.24	270
	06/08/17	8015D/300.0	<1.0	0.25	<5.0	0.17	92	0.21	0.21	290
	03/08/17	8015D/300.0	<1.0	0.3	<5.0	0.22	96	0.19	0.19	330
	11/01/16	8015D/300.0	<1.0	0.31	<5.0	0.29	87	<1.0	<1.0	320
	09/10/16	8015D/300.0	<1.0	5.2	<5.0	0.13	94	<1.0	<1.0	340
	06/10/16	8015D/300.0	<1.0	0.69	<5.0	0.3	100	<1.0	<1.0	340
	02/25/16	8015D/300.0	<1.0	0.35	<5.0	0.25	100	<1.0	<1.0	310
	11/09/15	8015D/300.0	<1.0	0.53	<5.0	0.34	99	<0.1	<0.1	290
	08/21/15	8015D/300.0	<1.0	0.47	<5.0	<0.5	95	<1.0	<1.0	260
	06/09/15	8015D	<1.0	0.42	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	0.35	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	<1.0	0.36	<5.0	0.31	98	<1.0	<1.0	360
	09/23/14	8015D	<1.0	0.25	<5.0	NA	NA	NA	NA	NA
	04/09/14	8015D	<1.0	0.21	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-34	10/29/19	8015D/300.0	<0.4	<0.05	<2.5	0.5	450	<0.5	14	200
	08/19/19	8015D/300.0	<1.0	<0.05	<5.0	0.25	740	<0.5	9.7	110
	05/09/19	8015D/300.0	<1.0	<0.05	<5.0	0.35	890	<0.5	9.7	60
	03/26/19	8015D/300.0	<1.0	<0.05	<5.0	0.41	1000	<0.5	11	35
	11/28/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	210	0.089	8.4	280
	08/24/18	8015D/300.0	<1.0	<0.05	<5.0	0.32	220	<0.5	8.1	230
	05/04/18	8015D/300.0	<1.0	<0.05	<5.0	0.31	230	<0.1	8.1	250
	02/16/18	8015D/300.0	<1.0	0.012	<5.0	0.45	230	<0.5	8.4	230
	12/01/17	8015D/300.0	<1.0	0.027	<5.0	0.54	270	8	8	230
	09/26/17	8015D/300.0	<1.0	<0.05	<5.0	0.29	280	7.6	7.6	220
	06/14/17	8015D/300.0	<1.0	<0.05	<5.0	<5.0	280	8.4	8.4	210
	03/01/17	8015D/300.0	<1.0	<0.05	<5.0	0.45	310	9	9	220
	11/08/16	8015D/300.0	<1.0	<0.05	<5.0	0.46	240	8.3	8.3	180
	09/13/16	8015D/300.0	<1.0	0.033	<5.0	0.42	300	9.1	9.1	200
	06/10/16	8015D/300.0	<1.0	<0.05	<5.0	0.52	370	7.7	7.7	130
	02/25/16	8015D/300.0	<1.0	<0.05	<5.0	0.53	380	18	18	110
	11/03/15	8015D/300.0	<1.0	<0.05	<5.0	0.46	370	<0.1	8.6	100
	08/18/15	8015D/300.0	<1.0	<0.05	<5.0	0.44	350	<0.1	8.6	100
	06/08/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/17/14	8015D/300.0	<1.0	<0.05	<5.0	0.54	400	6.6	6.6	73
	09/24/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	04/09/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-35	10/28/19	8015D/300.0	0.48	0.73	<2.5	0.87	220	<0.5	<0.5	36
	08/19/19	8015D/300.0	0.72	0.56	<5.0	0.77	190	<0.5	<0.5	79
	05/16/19	8015D/300.0	1.6	0.57	<5.0	0.64	250	<0.5	<0.5	80
	03/26/19	8015D/300.0	0.64	0.51	<5.0	0.65	190	<0.5	<0.5	95
	11/28/18	8015D/300.0	<1.0	0.72	<5.0	0.85	170	0.068	<0.5	39
	08/23/18	8015D/300.0	<1.0	0.49	<5.0	0.67	170	<0.5	<0.5	38
	05/03/18	8015D/300.0	1.3	0.44	<5.0	0.58	190	<0.1	0.032	48
	02/15/18	8015D/300.0	0.94	0.37	<5.0	0.68	180	<0.5	<0.5	37
	11/30/17	8015D/300.0	0.92	0.47	<5.0	0.9	190	<1.0	<1.0	34
	09/27/17	8015D/300.0	1.7	0.57	<5.0	0.8	190	<1.0	<1.0	38
	06/14/17	8015D/300.0	2.1	0.6	<5.0	0.3	150	<1.0	<1.0	99
	03/01/17	8015D/300.0	2.1	0.73	<5.0	0.94	71	<1.0	<1.0	410
	11/03/16	8015D/300.0	<1.0	1.7	<5.0	0.82	54	<1.0	<1.0	310
	09/13/16	8015D/300.0	<1.0	2	<5.0	0.77	62	<1.0	<1.0	270
	06/10/16	8015D/300.0	<1.0	1.4	<5.0	0.79	51	<1.0	<1.0	210
	02/26/16	8015D/300.0	0.94	0.87	<5.0	0.45	65	<1.0	<1.0	99
	11/03/15	8015D/300.0	2.8	1.5	<5.0	0.79	100	<0.1	<0.1	16
	08/18/15	8015D/300.0	2.9	4.7	<5.0	0.73	110	<0.1	<0.1	20
	06/04/15	8015D	2.3	2.9	<5.0	NA	NA	NA	NA	NA
	03/17/15	8015D	6	3.7	<5.0	NA	NA	NA	NA	NA
	11/21/14	8015D	3.3	1.6	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-36	09/05/18	8015D/300.0	5.6	25	<5.0	0.82	190	<0.5	0.07	<2.5
	05/03/18	8015D/300.0	10	26	<5.0	0.78	180	<0.5	0.085	<2.5
	02/15/18	8015D/300.0	10	27	<5.0	0.62	180	<0.5	<0.5	<2.5
	11/30/17	8015D/300.0	12	31	<5.0	0.79	170	0.29	0.29	0.51
	09/27/17	8015D/300.0	24	31	<5.0	0.66	160	<1.0	<1.0	0.7
	06/14/17	8015D/300.0	14	34	<5.0	0.56	140	<1.0	<1.0	<2.5
	03/01/17	8015D/300.0	13	35	<5.0	0.6	140	<1.0	<1.0	<2.5
	11/08/16	8015D/300.0	11	40	<5.0	0.67	130	<1.0	<1.0	<2.5
	08/18/15	8015D/300.0	14	39	<5.0	0.6	140	<0.5	<0.5	<2.5
	06/04/15	8015D	13	30	<5.0	NA	NA	NA	NA	NA
	03/17/15	8015D	10	38	<5.0	NA	NA	NA	NA	NA
	11/21/14	8015D	6.8	25	<5.0	NA	NA	NA	NA	NA
MKTF-37	10/28/19	--	SPH Detected - No samples were collected.							
	08/23/19	--	SPH Detected - No samples were collected.							
	05/16/19	--	SPH Detected - No samples were collected.							
	03/26/19	8015D/300.0	21	16	<5.0	0.93	110	<0.5	<0.5	71
	11/27/18	--	SPH Detected - No samples were collected.							
	08/23/18	8015D/300.0	3	17	<5.0	0.47	140	<0.5	<0.5	20
	05/03/18	8015D/300.0	6.1	16	<5.0	<0.5	240	<0.5	0.084	23
	11/03/17	8015D/300.0	6.2	15	<5.0	0.16	180	<1.0	<1.0	12
	06/04/15	8015D	5.7	12	<5.0	NA	NA	NA	NA	NA
	03/17/15	8015D	4.5	11	<5.0	NA	NA	NA	NA	NA
	11/21/14	8015D	<1.0	8.7	<5.0	NA	NA	NA	NA	NA
	MKTF-38	12/03/19	8015D/300.0	<0.4	<0.05	<2.5	0.69	280	0.32	9
08/20/19		8015D/300.0	<1.0	<0.05	<5.0	0.93	360	<0.5	5.5	560
06/27/19		8015D/300.0	<1.0	<0.05	<5.0	0.8	330	<0.5	4.8	600
05/14/19		8015D/300.0	<1.0	<0.05	<5.0	0.92	240	<0.5	3.7	600
03/26/19		8015D/300.0	<1.0	<0.05	<5.0	0.94	150	<0.5	0.66	640
11/20/18		8015D/300.0	<1.0	0.13	<5.0	0.81	240	0.21	5.9	400
08/21/18		8015D/300.0	<1.0	0.025	<5.0	0.8	370	<0.5	1.9	300
05/03/18		8015D/300.0	<1.0	<0.05	<5.0	0.65	290	<1.0	0.4	320
02/12/18		8015D/300.0	<1.0	0.012	<5.0	0.71	210	<0.5	2.8	220
11/30/17		8015D/300.0	<1.0	0.026	<5.0	0.9	210	1.2	1.2	250
09/28/17		8015D/300.0	<1.0	0.03	<5.0	0.69	230	<0.5	<0.5	260
06/21/17		8015D/300.0	<1.0	<0.05	<5.0	0.79	280	0.24	0.24	290
03/14/17		8015D/300.0	<1.0	<0.05	<5.0	0.74	130	0.26	0.26	380
11/01/16		8015D/300.0	<1.0	0.065	<5.0	0.82	200	0.14	8.8	320
09/13/16		8015D/300.0	<1.0	0.09	<5.0	0.73	260	5	5	330
06/08/16		8015D/300.0	<1.0	0.06	<5.0	0.7	270	9.9	9.9	360
02/29/16		8015D/300.0	<1.0	0.14	<5.0	0.75	110	7.2	7.2	450
11/09/15		8015D/300.0	<1.0	0.12	<5.0	0.91	210	<0.1	<0.01	400
08/24/15		8015D/300.0	<1.0	0.099	<5.0	0.69	210	<0.1	3.2	390
06/10/15		8015D	<1.0	0.2	<5.0	NA	NA	NA	NA	NA
03/16/15		8015D	<1.0	0.33	<5.0	NA	NA	NA	NA	NA
11/21/14		8015D	3.8	0.12	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-39	11/05/19	8015D/300.0	16	0.48	<2.5	<2	7500	<10	<10	1.2
	08/20/19	8015D/300.0	17	0.65	<5.0	<0.5	8900	8.1	8.1	4.5
	06/05/19	8015D/300.0	46	0.34	<5.0	<0.5	9000	<2.0	<0.5	<2.5
	1st Qtr 2019	--	Not accessible to collect samples.							
	11/20/18	8015D/300.0	11	0.25	<5.0	<0.5	1900	0.72	<0.5	<2.5
	11/20/18	8015D/300.0	11	0.25	<5.0	<0.5	1900	0.72	<0.5	<2.5
	08/21/18	8015D/300.0	11	0.91	<5.0	0.28	1600	<0.5	0.2	1.1
	05/06/18	8015D/300.0	17	0.7	<5.0	0.86	960	0.64	<0.5	<2.5
	02/08/18	8015D/300.0	17	0.7	<5.0	<0.5	3200	1	1	<2.5
	11/28/17	8015D/300.0	14	0.9	<5.0	0.46	1900	0.36	0.36	<2.5
	09/28/17	8015D/300.0	28	0.37	<5.0	<0.5	3400	<0.5	<0.5	0.49
	06/08/17	8015D/300.0	56	0.73	<5.0	0.87	790	<1.0	<1.0	0.16
	03/14/17	8015D/300.0	28	1.5	<5.0	0.44	1000	<2.0	<2.0	0.23
	11/01/16	8015D/300.0	17	0.36	<5.0	0.97	1300	<0.5	<0.5	<2.5
	09/13/16	8015D/300.0	10	1.1	<5.0	0.26	1900	<2.0	<2.0	<10
	06/08/16	8015D/300.0	19	0.67	<5.0	0.54	2300	<2.0	<2.0	0.21
	03/03/16	8015D/300.0	13	0.46	<5.0	0.71	2900	<4.0	<4.0	4.2
	11/09/15	8015D/300.0	23	0.44	<5.0	<2.0	6400	<2.0	<0.1	<0.5
	08/23/15	8015D/300.0	13	0.93	<5.0	<0.5	9100	<4.0	<4.0	<2.5
	06/10/15	8015D	44	0.44	<5.0	NA	NA	NA	NA	NA
	03/16/15	8015D	6.2	0.21	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D	15	0.39	<5.0	NA	NA	NA	NA	NA
MKTF-40	10/22/19	8015D/300.0	<0.40	<0.05	<2.5	<0.5	2800	<2.0	0.17	540
	08/22/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	3500	<2.0	0.081	500
	05/06/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	3200	3.3	<0.5	560
	02/20/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	3100	<2.0	<0.5	550
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	2700	<2.0	<0.5	610
	08/17/18	8015D/300.0	<1.0	0.019	<5.0	<0.5	3100	<2.0	<0.5	550
	05/06/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	4800	2.4	0.1	560
	02/05/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	4000	<4.0	<4.0	480
	11/21/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	4100	<2.0	<2.0	590
	09/25/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	3600	<4.0	<4.0	590
	06/05/17	8015D/300.0	<1.0	<0.05	<5.0	<2	4400	<4.0	<4.0	580
	03/07/17	8015D/300.0	<1.0	<0.05	<5.0	<0.1	4200	<4.0	<4.0	500
	10/31/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	3700	<4.0	<4.0	500
	09/08/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	5300	<4.0	<4.0	460
	06/09/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	5300	<4.0	<4.0	390
	02/23/16	8015D/300.0	<1.0	<0.05	<5.0	<0.1	4900	<10	<10	520
	11/04/15	8015D/300.0	<1.0	<0.05	<5.0	<0.1	4600	<1.0	<1.0	540
	08/21/15	8015D/300.0	<1.0	<0.05	<5.0	<0.5	3400	<4.0	<4.0	890
	06/10/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/21/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA



**8.17.1 MKTF WELLS**  
**DRO/GRO/MRO and General Chemistry Analytical Results**

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-41	10/23/19	8015D/300.0	<0.4	<0.05	<2.5	0.44	800	<0.5	4.8	58
	08/22/19	8015D/300.0	<1.0	<0.05	<5.0	0.4	840	<0.5	4.8	59
	05/07/19	8015D/300.0	<1.0	<0.05	<5.0	0.31	910	0.78	4.8	62
	02/13/19	8015D/300.0	<1.0	<0.05	<5.0	0.33	840	<0.5	5.6	61
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	840	5.7	5.7	61
	08/29/18	8015D/300.0	<1.0	<0.05	<5.0	0.57	850	<1.0	5.5	64
	05/09/18	8015D/300.0	<1.0	<0.05	<5.0	0.11	840	4.9	4.9	56
	02/07/18	8015D/300.0	<1.0	0.017	<5.0	0.27	790	5.3	5.3	61
	11/27/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	860	5.6	5.6	65
	09/25/17	8015D/300.0	<1.0	0.029	<5.0	0.47	810	5.3	5.3	65
	06/06/17	8015D/300.0	<1.0	<0.05	<5.0	0.24	910	5.4	5.4	66
	03/07/17	8015D/300.0	<1.0	<0.05	<5.0	0.32	800	3.9	3.9	64
	10/31/16	8015D/300.0	<1.0	<0.05	<5.0	0.26	730	5.4	5.4	64
	09/09/16	8015D/300.0	<1.0	<0.05	<5.0	0.29	910	5.7	5.7	60
	06/09/16	8015D/300.0	<1.0	<0.05	<5.0	0.51	750	5.6	5.6	71
	02/24/16	8015D/300.0	<1.0	<0.05	<5.0	0.47	790	4.7	4.7	74
	11/05/15	8015D/300.0	<1.0	<0.05	<5.0	0.35	830	4.2	4.2	68
	08/21/15	8015D/300.0	<1.0	<0.05	<5.0	<0.5	900	5.6	5.6	79
	06/09/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-42	10/23/19	8015D/300.0	8.6	0.14	<2.5	0.78	940	<0.5	<0.5	83
	08/22/19	8015D/300.0	57	0.22	<5.0	0.82	1000	0.85	<0.5	89
	05/07/19	8015D/300.0	59	0.16	<5.0	0.88	1100	0.91	0.07	89
	02/13/19	8015D/300.0	67	0.34	<5.0	1	1100	<0.5	0.15	87
	11/15/18	8015D/300.0	63	0.56	<5.0	0.89	1100	<0.5	<0.5	87
	08/29/18	8015D/300.0	64	0.21	<5.0	0.94	1000	<1.0	<1.0	98
	05/09/18	8015D/300.0	72	0.4	<5.0	0.47	920	<1.0	<1.0	95
	02/07/18	8015D/300.0	79	0.46	<5.0	0.43	810	<1.0	<1.0	92
	11/27/17	8015D/300.0	77	0.19	<5.0	<0.5	850	<1.0	<1.0	110
	09/25/17	8015D/300.0	72	0.21	<5.0	0.6	820	<1.0	<1.0	100
	06/06/17	8015D/300.0	72	0.15	<5.0	0.47	880	<1.0	<1.0	110
	03/07/17	8015D/300.0	79	0.14	<5.0	0.68	820	<1.0	<1.0	110
	10/31/16	8015D/300.0	62	0.11	<5.0	<0.5	900	<2.0	<2.0	110
	09/09/16	8015D/300.0	62	0.7	<5.0	0.43	880	<1.0	<1.0	110
	06/09/16	8015D/300.0	60	0.16	<5.0	0.68	890	<1.0	<1.0	130
	02/24/16	8015D/300.0	52	0.12	<5.0	0.69	860	<1.0	<1.0	120
	11/05/15	8015D/300.0	45	0.11	<5.0	0.6	870	<1.0	<1.0	120
	08/21/15	8015D/300.0	52	0.21	<5.0	0.62	930	<1.0	<1.0	130
	06/09/15	8015D	60	0.1	<5.0	NA	NA	NA	NA	NA
	03/11/15	8015D	27	<0.5	<5.0	NA	NA	NA	NA	NA
	11/18/14	8015D	44	<0.05	<5.0	NA	NA	NA	NA	NA



# 8.17.1 MKTF WELLS

## DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-43	10/24/19	8015D/300.0	<0.4	<0.05	<2.5	<0.5	5100	<2.0	12	540
	08/22/19	8015D/300.0	<1.0	<0.05	<5.0	0.074	5100	<2.0	18	560
	05/08/19	8015D/300.0	<1.0	<0.05	<5.0	0.31	3600	<2.0	19	340
	02/13/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	4300	<2.0	22	410
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	2600	<2.0	<2.5	290
	08/30/18	8015D/300.0	<1.0	<0.05	<5.0	0.38	3200	<2.0	8.5	260
	05/09/18	8015D/300.0	<1.0	<0.05	<5.0	<2.0	7600	6.5	6.5	810
	02/07/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	8500	13	13	950
	11/27/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	12000	14	14	1200
	09/25/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	9500	13	13	1100
	06/06/17	8015D/300.0	<1.0	<0.05	<5.0	<2.0	12000	23	23	980
	03/08/17	8015D/300.0	<1.0	<0.05	<5.0	<2.0	13000	25	25	1000
	10/31/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	19000	62	62	1300
	09/09/16	8015D/300.0	<1.0	0.026	<5.0	<2.0	16000	<10	<10	1800
	06/09/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	15000	<10	<10	1300
	02/24/16	8015D/300.0	<1.0	<0.05	<5.0	<2.0	15000	<10	<10	1200
	11/05/15	8015D/300.0	<1.0	<0.05	<5.0	<2.0	16000	<10	<10	1600
	08/21/15	8015D/300.0	<1.0	<0.05	<5.0	<2.0	17000	<10	<10	1700
	06/10/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
03/11/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA	
11/18/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA	
MKTF-44	10/24/19	8015D/300.0	<0.40	<0.05	<2.5	<0.5	810	<0.5	<0.5	91
	08/22/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	1500	<0.5	9	84
	05/08/19	8015D/300.0	<1.0	<0.05	<5.0	<0.5	2400	<2.0	14	72
	02/13/19	8015D/300.0	<1.0	0.022	<5.0	<0.5	1500	0.35	9.9	89
	11/15/18	8015D/300.0	<1.0	<0.05	<5.0	<0.5	230	<0.5	0.57	100
	08/30/18	8015D/300.0	1.7	0.015	<5.0	0.17	530	<0.5	2.5	96
	05/10/18	8015D/300.0	<1.0	<0.05	<5.0	0.16	240	0.066	1.1	95
	02/08/18	8015D/300.0	<1.0	0.01	<5.0	<0.5	390	2.1	2.1	100
	11/28/17	8015D/300.0	<1.0	0.017	<5.0	<0.5	730	4.2	4.2	91
	09/25/17	8015D/300.0	<1.0	<0.05	<5.0	<0.5	1100	7	7	85
	06/05/17	8015D/300.0	<1.0	<0.05	<5.0	<0.1	1300	7.6	7.6	80
	03/08/17	8015D/300.0	<1.0	<0.05	<5.0	<0.1	3500	26	26	59
	11/01/16	8015D/300.0	<1.0	<0.05	<5.0	0.32	150	0.81	0.81	100
	09/09/16	8015D/300.0	<1.0	0.023	<5.0	0.36	310	1.8	1.8	97
	06/09/16	8015D/300.0	<1.0	<0.05	<5.0	0.29	610	3.6	3.6	96
	02/24/16	8015D/300.0	<1.0	<0.05	<5.0	0.45	270	1.1	1.1	100
	11/09/15	8015D/300.0	<1.0	<0.05	<5.0	0.56	91	<0.5	0.75	110
	08/17/15	8015D/300.0	<1.0	<0.1	<5.0	0.58	110	<1.0	<1.0	120
	06/10/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	03/12/15	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/21/14	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-46	12/03/19	8015D/300.0	<0.40	<0.05	<2.5	0.45	740	<0.5	9.6	230
MKTF-47	12/03/19	8015D/300.0	<0.40	<0.05	<2.5	0.85	260	<0.5	11	350
MKTF-48	12/03/19	8015D/300.0	0.69	0.17	<2.5	1.1	180	<0.5	<0.5	20
MKTF-49	12/03/19	8015D/300.0	1	82	<2.5	<0.5	1300	<0.5	<0.5	<2.5
MKTF-50	12/03/19	8015D/300.0	0.63	34	<2.5	1.7	260	<0.5	<0.5	57



### 8.17.1 MKTF WELLS

#### DRO/GRO/MRO and General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			NE	NE	NE	1.6	250.0	1	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (JUNE 2019)			NE	NE	NE	1.18	NE	1.97	31.60	NE
EPA RSL for Tap Water (NOVEMBER 2019)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (JUNE 2019)			0.0167	0.0101	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								

#### DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

#### STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NMED Soil Screening Guidance Volume 1, Table 6-4 (groundwater)

#### NOTES

1) No samples collected for General Chemistry - not enough water.



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

PARAMETERS																
STANDARDS																
WQCC 20 NMAC 6.2.3103 (DEC 2018)																
40 CFR 141.62 MCL																
NMED Tap Water (JUNE 2019)																
EPA RSL for Tap Water (NOVEMBER 2019)																
WELL ID	DATE SAMPLED	METHOD		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MKTF-1	02/24/16	200.7/200.8		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
	11/04/15	200.7/200.8		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
	08/21/15	200.7/200.8		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
	06/09/15	200.7/200.8		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
	03/11/15	200.7/200.8														
	06/06/14	200.7/200.8		0.002	3.3	<0.002	<0.006	<0.006	5.5	0.0011	2.2	0.0028	<0.005	<0.0002	0.00029	0.0099
				<0.005	3	<0.002	<0.006	<0.006	8.3	0.0069	2.1	0.0082	<0.005	<0.0002	0.00061	0.016
				0.0033	2.8	<0.002	<0.006	<0.006	8.7	0.0062	2.1	<0.01	<0.005	<0.0002	0.00078	0.014
MKTF-2	06/09/15	200.7/200.8		0.0034	2.4	<0.002	0.0065	<0.006	8.1	0.0042	2.2	0.0045	<0.005	<0.0002	<0.0005	0.015
	03/11/15	200.7/200.8		0.0032	2.1	<0.002	<0.006	<0.006	5.6	0.002	1.9	0.0056	<0.005	<0.0002	<0.001	<0.01
				0.007	4.7	<0.002	0.035	0.038	35	0.074	4.1	0.0091	<0.005	<0.0002	<0.005	0.078
	11/19/19	200.7/200.8		<0.020	0.33	<0.002	0.0046	0.0053	5.7	0.0054	2.9	<0.020	0.0059	<0.0002	0.044	0.014
	08/23/19	200.7/200.8		0.006	0.86	<0.002	0.0055	0.0072	9.1	0.009	2.3	<0.005	0.0031	0.00011	0.031	0.023
	05/06/19	200.7/200.8		0.0033	0.99	<0.002	<0.006	<0.006	3.9	<0.0025	1.9	<0.005	0.0043	<0.0002	0.017	<0.01
	03/28/19	200.7/200.8		0.0026	1	<0.002	<0.006	<0.006	1.6	0.00022	1.5	0.00059	0.0025	0.000087	0.023	<0.01
	11/28/18	200.7/200.8		0.0019	0.44	<0.002	<0.006	<0.006	0.24	0.00059	0.74	<0.001	0.0029	NA	NA	0.0035
	08/20/18	200.7/200.8		0.003	0.27	<0.002	<0.006	<0.006	0.2	0.00051	0.52	<0.001	0.002	<0.0002	0.038	0.0044
	05/01/18	200.7/200.8		0.0025	0.26	<0.002	<0.006	<0.0006	0.36	0.00065	0.62	<0.005	<0.005	0.000053	0.023	<0.01
	02/06/18	200.7/200.8		<0.005	0.28	<0.002	<0.006	<0.006	0.57	0.0009	0.61	<0.01	0.0016	0.000075	0.032	<0.01
	11/20/17	200.7/200.8		0.0034	0.26	<0.002	<0.006	<0.006	0.23	0.00062	0.6	<0.005	<0.005	<0.0002	0.036	<0.01
	10/03/17	200.7/200.8		0.0054	0.34	<0.002	<0.006	0.004	3	0.002	0.91	0.0056	<0.005	<0.0002	NA	0.0085
	03/16/17	200.7/200.8		0.004	0.35	<0.002	<0.006	<0.006	1.4	0.0017	0.74	0.0082	<0.005	<0.0002	0.024	0.0063
	10/28/16	200.7/200.8		0.003	0.22	<0.002	<0.006	<0.006	1.5	0.0027	0.53	0.0048	<0.005	<0.0002	0.026	0.038
	09/07/16	200.7/200.8		0.0041	0.32	<0.002	0.0054	0.0038	5.9	0.0089	0.65	0.0064	<0.005	<0.0002	0.038	0.018
	06/10/16	200.7/200.8		0.0024	0.19	<0.002	0.0027	<0.006	2.6	0.0034	0.4	0.0046	<0.005	<0.0002	0.033	0.012
	02/24/16	200.7/200.8		0.0045	0.73	<0.002	0.0098	0.018	14	0.023	1.1	0.0033	<0.005	<0.0002	0.063	0.057
	11/04/15	200.7/200.8		0.0043	0.17	<0.002	<0.006	<0.006	0.25	0.0038	0.44	<0.05	<0.005	<0.0002	0.032	0.012
	08/21/15	200.7/200.8		0.0044	0.28	<0.002	0.0073	0.0089	8.6	0.0088	0.81	0.0026	<0.005	<0.0002	0.05	0.033
	06/09/15	200.7/200.8		0.0035	0.14	<0.002	<0.006	<0.006	1.6	0.0023	0.55	0.0028	<0.005	<0.0002	0.032	<0.01
	03/11/15	200.7/200.8		0.0046	0.21	<0.002	<0.006	0.0074	4.6	0.0057	0.64	0.0043	<0.005	<0.0002	0.048	0.017
	11/14/14	200.7/200.8		0.0059	0.22	<0.002	<0.006	0.012	7	0.0079	0.68	<0.01	<0.005	<0.0002	0.073	0.03
	09/18/14	200.7/200.8		0.0017	0.15	<0.002	<0.006	<0.006	0.15	<0.001	0.57	0.0031	<0.005	<0.0002	0.013	<0.01
	06/06/14	200.7/200.8		<0.005	0.2	<0.002	<0.006	<0.006	4.2	<0.005	0.7	0.0069	<0.005	<0.0002	0.056	0.017



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-4	10/30/19	200.7/200.8												
	08/21/19	200.7/200.8	3.6	<0.002	<0.006	<0.006	7.6	0.00052	1.6	<0.005	0.0017	<0.0002	NA	<0.01
	05/13/19	200.7/200.8	2	<0.002	0.0042	0.0055	5.9	0.0064	2.2	0.0014	<0.005	<0.0002	0.0084	0.0094
	03/26/19	200.7/200.8	3.4	<0.002	<0.006	<0.006	8	0.0008	1.6	0.00073	0.0017	<0.0002	0.0017	<0.01
	11/20/18	200.7/200.8	3.4	<0.002	<0.006	<0.006	6.8	0.00094	1.5	0.00071	0.0015	0.000057	0.0023	<0.01
	09/04/18	200.7/200.8	4.1	<0.002	<0.006	<0.006	5.1	0.00039	2.3	<0.001	0.0034	<0.0002	NA	0.0057
	05/02/18	200.7/200.8	2.9	<0.002	<0.006	<0.006	5.7	0.00055	1.4	<0.001	0.0022	<0.0002	0.0041	0.0054
	02/14/18	200.7/200.8	3	<0.002	<0.006	0.0042	5.3	0.001	1.7	<0.001	0.0013	<0.0002	0.004	0.0062
	11/28/17	200.7/200.8	2.8	<0.002	<0.006	<0.006	5.2	0.0007	1.5	0.0083	0.0021	<0.0002	0.0042	<0.01
	09/26/17	200.7/200.8	3.5	<0.002	<0.006	<0.006	7	0.00041	1.3	0.0062	0.0013	NA	0.0019	<0.01
	06/08/17	200.7/200.8	3.8	<0.002	<0.006	<0.006	9.4	0.0018	1.4	0.011	<0.005	<0.0002	NA	0.0045
	03/02/17	200.7/200.8	3	<0.002	<0.006	<0.006	5	0.0012	1.5	0.012	<0.005	0.000067	0.0035	0.005
	11/02/16	200.7/200.8	3.2	<0.002	<0.006	<0.006	8.2	0.0019	1.5	0.01	<0.005	0.00015	NA	0.0087
	09/11/16	200.7/200.8	2.8	<0.002	<0.006	<0.006	4.6	0.00063	1.5	0.01	<0.005	<0.0002	0.0041	0.006
	06/09/16	200.7/200.8	3.4	<0.002	<0.006	<0.006	6.7	0.003	1.5	0.014	<0.005	<0.0002	0.0028	0.0072
	02/29/16	200.7/200.8	3.1	<0.002	<0.006	<0.006	6.2	0.0019	1.7	0.0098	<0.005	<0.0002	0.0048	0.016
	11/03/15	200.7/200.8	3	<0.002	<0.006	<0.006	5.6	0.0036	1.5	0.0043	<0.005	<0.0002	0.0042	0.022
	08/18/15	200.7/200.8	3.4	<0.002	<0.006	<0.006	16	0.0063	1.7	0.016	<0.005	<0.0002	0.0019	0.012
	06/04/15	200.7/200.8	3	<0.002	<0.006	0.0061	17	0.017	1.9	<0.01	<0.005	<0.0002	0.0042	0.025
	03/16/15	200.7/200.8	2.5	<0.002	0.0087	<0.006	13	0.0097	1.9	<0.01	<0.005	<0.0002	0.0053	0.017
	11/13/14	200.7/200.8	1.8	<0.002	0.0092	0.012	11	0.022	2.5	0.016	<0.005	<0.0002	0.017	0.03
	09/15/14	200.7/200.8	1.9	<0.002	0.0086	0.015	15	0.023	2.5	<0.05	<0.005	<0.0002	0.013	0.03
	06/04/14	200.7/200.8	2	<0.002	0.015	0.021	20	0.036	2.9	0.0078	<0.005	<0.0002	0.02	0.044
		1.4	<0.002	0.0085	0.013	7.9	0.013	2.1	0.013	<0.005	<0.0002	0.009	0.02	

Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6







8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-10	10/30/19	200.7/200.8											
	08/22/19	200.7/200.8											
	05/13/19	200.7/200.8											
	03/26/19	200.7/200.8											
	11/20/18	200.7/200.8											
	09/04/18	200.7/200.8											
	05/02/18	200.7/200.8											
	02/14/18	200.7/200.8											
	11/28/17	200.7/200.8											
	09/28/17	200.7/200.8											
	06/08/17	200.7/200.8											
	03/02/17	200.7/200.8											
	11/02/16	200.7/200.8											
	09/11/16	200.7/200.8											
	06/09/16	200.7/200.8											
	02/29/16	200.7/200.8											
	11/03/15	200.7/200.8											
	08/18/15	200.7/200.8											
	06/04/15	200.7/200.8											
	03/16/15	200.7/200.8											
	11/14/14	200.7/200.8											
	09/18/14	200.7/200.8											
	06/06/14	200.7/200.8											
									</				



## 8.17.2 MKTF WELLS

## Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTf-11	10/30/19	200.7/200.8											
	08/21/19	200.7/200.8											
	05/13/19	200.7/200.8											
	03/26/19	200.7/200.8											
	11/20/18	200.7/200.8											
	09/04/18	200.7/200.8											
	05/02/18	200.7/200.8											
	02/08/18	200.7/200.8											
	11/28/17	200.7/200.8											
	09/26/17	200.7/200.8											
	06/08/17	200.7/200.8											
	03/02/17	200.7/200.8											
	11/02/16	200.7/200.8											
	09/11/16	200.7/200.8											
	06/09/16	200.7/200.8											
	02/29/16	200.7/200.8											
	11/03/15	200.7/200.8											
	08/18/15	200.7/200.8											
	06/04/15	200.7/200.8											
	03/16/15	200.7/200.8											
11/13/14	200.7/200.8												
09/15/14	200.7/200.8												
06/05/14	200.7/200.8												
MKTf-13	10/29/19	200.7/200.8											
	08/20/19	--											
	05/09/19	200.7/200.8											
	03/26/19	200.7/200.8											
	11/28/18	200.7/200.8											
	08/30/18	200.7/200.8											
	05/10/18	200.7/200.8											
	03/15/17	200.7/200.8											



## 8.17.2 MKTF WELLS

## Total Metals Analytical Result Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (JUNE 2019)															
EPA RSL for Tap Water (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MKTf-15	10/30/19	--													
	08/21/19	--													
	05/13/19	200.7/200.8	0.0081	19	<0.002	<0.006	<0.006	31	0.0058	8.4	0.0014	0.0064	<0.0002	0.00058	0.016
	03/25/19	--													
	08/28/18	200.7/200.8	0.0035	26	<0.002	<0.006	<0.006	36	<0.0025	13	<0.005	0.019	0.000062	<0.0025	0.0045
	05/02/18	200.7/200.8	0.016	33	<0.002	<0.006	0.0075	53	0.0044	18	<0.01	0.0077	<0.0002	<0.005	0.01
	11/28/17	200.7/200.8	0.024	47	<0.002	<0.0006	<0.006	78	0.0037	25	0.0079	0.012	NA	<0.0025	<0.01
	06/08/17	200.7/200.8	0.0072	33	<0.002	0.0011	<0.006	65	0.0098	14	0.0081	<0.005	0.000074	0.0015	0.032
	03/02/17	200.7/200.8	0.0045	29	<0.002	<0.006	<0.006	49	0.0097	9.6	0.0058	<0.005	0.00015	NA	0.027
	11/02/16	200.7/200.8	0.0037	22	<0.002	<0.006	<0.006	34	0.006	6.8	0.0069	<0.005	<0.0002	<0.0025	0.28
MKTf-16	09/11/16	200.7/200.8	0.0022	23	<0.002	<0.006	<0.006	35	0.0059	7.7	0.0054	<0.005	<0.0002	<0.0025	0.018
	09/17/15	200.7/200.8	<0.005	29	<0.002	<0.006	<0.006	18	<0.01	9.8	<0.005	<0.005	<0.0002	<0.01	0.023
	06/05/14	200.7/200.8	<0.01	25	<0.002	0.0074	<0.006	11	0.011	7.9	<0.01	<0.005	<0.0002	<0.005	0.017
	10/30/19	200.7/200.8	0.012	4.7	<0.002	<0.006	<0.006	17	0.0037	4.9	<0.01	0.0024	<0.0002	NA	0.019
	08/30/19	200.7/200.8	0.021	6.7	<0.002	<0.006	<0.006	24	<0.0025	6.8	<0.001	<0.005	<0.002	0.0027	<0.01
	05/14/19	200.7/200.8	0.012	3.5	<0.002	<0.006	<0.006	5.8	0.0016	3	0.00076	<0.005	<0.0002	0.0028	0.0079
	02/20/19	200.7/200.8	0.014	2.4	<0.002	0.0016	<0.006	5.8	0.005	1.7	<0.001	0.0016	<0.0002	0.0023	0.027
	11/29/18	200.7/200.8	0.018	1.4	<0.002	<0.006	0.0065	4.1	0.0021	1.5	<0.001	0.0027	0.000065	NA	0.023
	08/31/18	200.7/200.8	0.019	1.9	<0.002	<0.006	<0.006	3.6	0.0019	1.7	<0.005	0.0016	<0.0002	0.0074	0.014
	05/11/18	200.7/200.8	0.012	2.3	<0.002	0.0031	0.0069	4.3	0.0037	1.9	0.0046	0.0015	<0.0002	0.0093	0.026
MKTf-16	02/15/18	200.7/200.8	0.0071	1.6	<0.002	0.023	0.078	18	0.025	0.8	0.0025	<0.005	0.00044	0.006	0.29
	11/29/17	200.7/200.8	0.019	2.9	<0.002	<0.006	<0.006	5.2	0.0012	2.3	0.011	0.0015	NA	0.0066	0.0079
	09/26/17	200.7/200.8	0.016	2.7	<0.002	<0.002	0.0021	8.6	0.002	2.6	0.019	<0.005	0.000058	NA	0.0096
	06/08/17	200.7/200.8	0.019	2.2	<0.002	0.0018	0.0022	3.4	0.0033	1.6	0.014	<0.005	0.000054	0.015	0.016
	03/14/17	200.7/200.8	0.014	1.9	<0.002	<0.006	0.0054	6.3	0.0058	1.7	0.0081	<0.005	NA	0.0024	0.025
	11/03/16	200.7/200.8	0.015	0.67	<0.002	<0.006	0.0038	3.6	0.0034	0.86	0.01	<0.005	<0.0002	0.0077	0.02
	09/12/16	200.7/200.8	0.014	0.72	<0.002	<0.006	<0.006	4.6	0.0029	0.96	0.014	<0.005	<0.0002	0.0067	0.022
	02/29/16	200.7/200.8	0.0092	1.3	<0.002	<0.006	<0.006	6.5	0.0031	1.8	0.0049	<0.005	<0.0002	0.00066	0.034
	11/03/15	200.7/200.8	0.018	3	<0.002	<0.006	<0.006	13	0.0027	3.9	0.021	<0.005	<0.0002	0.00053	0.023
	08/23/15	200.7/200.8	0.014	3.9	<0.002	<0.006	<0.006	16	0.0012	5.5	<0.02	<0.005	<0.0002	<0.0005	0.01
MKTf-16	06/08/15	200.7/200.8	0.0097	2.2	<0.002	<0.006	0.0091	12	<0.0025	3.3	0.0072	<0.025	<0.0002	<0.0025	0.023
	03/16/15	200.7/200.8	<0.01	1	<0.002	<0.006	0.023	7.2	<0.01	1.3	<0.02	<0.005	<0.0002	<0.01	0.035
	11/18/14	200.7/200.8	0.01	1.1	<0.002	<0.006	<0.006	10	0.0042	1.3	<0.05	<0.005	<0.0002	0.0016	0.05
	09/17/14	200.7/200.8	0.012	0.8	<0.002	<0.006	<0.006	8.6	0.0031	1.2	<0.01	<0.005	<0.0002	<0.001	0.034
	06/05/14	200.7/200.8	0.023	0.9	<0.002	<0.006	0.008	7.9	<0.005	1.2	0.013	<0.005	<0.0002	0.015	0.089



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS												
WQCC 20 NMAC 6.2.3103 (DEC 2018)												
40 CFR 141.62 MCL												
NMED Tap Water (JUNE 2019)												
EPA RSL for Tap Water (NOVEMBER 2019)												
WELL ID	DATE SAMPLED	METHOD										
MKTF-17	10/29/19	200.7/200.8										
	08/20/19	200.7/200.8										
	05/09/19	200.7/200.8										
	03/26/19	200.7/200.8										
	11/28/18	200.7/200.8										
	08/24/18	200.7/200.8										
	05/04/18	200.7/200.8										
	02/16/18	200.7/200.8										
	12/01/17	200.7/200.8										
	09/26/17	200.7/200.8										
	06/14/17	200.7/200.8										
	03/15/17	200.7/200.8										
	11/08/16	200.7/200.8										
	09/13/16	200.7/200.8										
	02/26/16	200.7/200.8										
	11/03/15	200.7/200.8										
	08/18/15	200.7/200.8										
	06/08/15	200.7/200.8										
	03/12/15	200.7/200.8										
	11/18/14	200.7/200.8										
	09/18/14	200.7/200.8										
	06/16/14	200.7/200.8										

Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.002	0.03	10
0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	0.002	0.03	NE
0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.00063	0.004	6
0.0068	1.8	<0.002	<0.006	<0.006	4.8	0.0012	3.4	<0.001	0.0025	NA	0.0078
0.007	1.1	<0.002	<0.006	<0.006	3	0.0005	3	<0.001	0.0019	0.0036	<0.01
0.0082	1.1	<0.002	0.0018	0.0067	5.4	0.0031	3.1	<0.001	0.0025	0.0044	0.032
0.0052	0.51	<0.002	<0.006	<0.006	2.2	0.00018	2.8	<0.001	0.002	0.0047	<0.01
0.0066	0.46	<0.002	<0.006	<0.006	2	0.00042	2.2	<0.001	0.0032	NA	0.0036
0.007	0.42	<0.002	<0.006	0.0049	1.7	0.00036	2.4	<0.001	0.0029	0.000064	0.0042
0.0071	0.45	<0.002	<0.006	<0.006	1.8	0.00026	2.8	<0.001	0.0015	0.005	0.004
0.0021	0.44	<0.002	<0.006	<0.006	1.7	<0.0005	2.6	0.0085	0.0014	<0.0002	<0.01
0.0041	0.62	<0.002	<0.006	<0.006	1.9	0.00065	2.3	<0.01	0.0013	<0.0002	<0.01
0.008	0.77	<0.002	<0.006	<0.006	4.2	0.0014	2.9	0.0056	<0.005	<0.0002	0.0044
0.008	0.56	<0.002	0.0022	<0.006	3.8	0.0032	2.5	0.0029	<0.005	<0.0002	0.03
0.0078	0.76	<0.002	<0.006	0.0052	6.5	0.0026	2.8	0.0035	<0.005	<0.0002	0.0059
0.0064	0.6	<0.002	<0.006	<0.006	1.9	0.0013	2.8	0.0034	<0.005	<0.0002	0.0068
0.007	0.58	<0.002	<0.006	<0.006	3.3	0.0031	2.8	0.0035	<0.005	0.000071	0.0061
0.0046	0.12	<0.002	<0.006	<0.006	0.98	0.00095	2.6	0.0012	<0.005	<0.0002	0.0056
0.02	12	<0.01	<0.006	<0.006	0.65	0.35	3.5	<0.02	<0.005	0.048	0.33
0.0052	0.2	<0.002	<0.006	0.0097	1.7	0.0037	2.9	<0.005	<0.0002	0.018	0.011
<0.005	0.24	<0.002	<0.006	<0.006	2.6	0.0032	3.3	<0.005	<0.0002	0.02	0.015
0.0057	0.17	<0.002	<0.006	<0.006	1.8	0.0017	3.1	0.0023	<0.0002	0.022	<0.01
0.0051	0.21	<0.002	<0.006	<0.006	2	0.0031	3	<0.01	<0.0002	0.025	0.019
0.0055	0.21	<0.002	<0.006	<0.006	1.8	0.0016	3.3	0.0019	<0.0002	0.022	0.013
0.0063	0.61	<0.002	0.013	0.012	10	0.022	4.1	0.0045	<0.0002	0.027	0.036



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-18	10/29/19	200.7/200.8											
	08/19/19	200.7/200.8											
	05/16/19	200.7/200.8											
	03/26/19	200.7/200.8											
	11/28/18	200.7/200.8											
	08/24/18	200.7/200.8											
	05/04/18	200.7/200.8											
	02/16/18	200.7/200.8											
	06/14/17	200.7/200.8											
	03/01/17	200.7/200.8											
	11/08/16	200.7/200.8											
	09/13/16	200.7/200.8											
	06/10/16	200.7/200.8											
	02/26/16	200.7/200.8											
	11/03/15	200.7/200.8											
	08/18/15	200.7/200.8											
	06/08/15	200.7/200.8											
	03/17/15	200.7/200.8											
	11/18/14	200.7/200.8											
	09/18/14	200.7/200.8											
	06/06/14	200.7/200.8											
SPH Detected - No samples were collected.													
	0.0018	2.1	<0.002	<0.006	<0.006	3.4	0.00045	2	<0.0010	<0.005	<0.0002	NA	<0.01
	0.0019	2.2	<0.002	<0.006	<0.006	3.8	0.0032	2.2	0.00056	<0.005	<0.0002	0.00096	<0.01
	0.0028	2.5	<0.002	0.0048	0.0032	12	0.00026	1.9	<0.001	<0.005	0.000083	0.00051	<0.01
	0.0018	1.4	<0.002	0.0048	0.0032	2.5	0.00042	1.9	<0.0005	0.0028	NA	NA	0.004
	0.0024	2	<0.002	<0.006	0.0044	2.9	0.00042	2.2	<0.001	0.0028	0.000082	0.00064	0.0034
	0.0021	2.1	<0.002	<0.006	<0.006	1.9	0.00051	2.2	<0.003	0.0014	<0.0002	0.00074	0.0051
	0.0023	2.2	<0.002	<0.006	<0.006	3.3	0.0028	2.1	0.003	0.0013	<0.0002	0.001	0.015
	<0.005	2.4	<0.002	0.0048	0.0032	7	0.0088	2.3	0.0041	<0.005	<0.0002	NA	0.02
	0.003	2.2	<0.002	<0.006	<0.006	4.9	0.0047	2.1	0.0039	<0.005	0.00015	NA	0.012
	0.0033	1.7	<0.002	<0.006	<0.006	2.2	0.00041	1.8	0.0059	<0.005	<0.0002	0.0011	<0.01
	0.0033	1.8	<0.002	<0.006	<0.006	3.3	0.0013	2	0.0049	<0.005	0.000064	0.0013	0.0037
	0.0027	1.9	<0.002	<0.006	<0.006	2.5	0.0013	1.9	0.0057	<0.005	<0.0002	0.0012	<0.01
	0.0022	2.3	<0.002	0.0043	0.0057	6.4	0.0064	2.1	0.0019	<0.005	<0.0002	0.0016	0.02
	0.0088	12	<0.002	0.046	0.064	58	0.14	11	<0.01	<0.005	<0.001	0.015	0.19
	0.018	24	<0.01	0.26	0.21	110	0.37	22	<0.01	<0.005	0.00025	0.037	0.54
	<0.005	2.5	<0.002	<0.006	<0.006	5	<0.0025	1.8	<0.005	<0.005	<0.0002	<0.0025	<0.01
	0.0031	3.5	<0.002	0.012	0.011	14	0.021	2.7	<0.01	<0.005	<0.0002	0.0026	0.051
	0.0019	2.5	<0.002	<0.006	<0.006	4	0.0016	1.8	<0.01	<0.005	<0.0002	<0.001	0.02
	0.0015	2.6	<0.002	<0.006	<0.006	3.2	0.0028	2	0.0025	<0.005	<0.0002	0.0015	0.018
	0.013	19	<0.01	0.11	0.12	81	0.29	17	0.013	<0.025	<0.0002	0.022	0.31



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-19	10/28/19	200.7/200.8											
	08/19/19	200.7/200.8											
	05/09/19	200.7/200.8											
	03/26/19	200.7/200.8											
	11/28/18	200.7/200.8											
	08/24/18	200.7/200.8											
	05/04/18	200.7/200.8											
	02/16/18	200.7/200.8											
	12/01/17	200.7/200.8											
	09/26/17	200.7/200.8											
	06/14/17	200.7/200.8											
	03/15/17	200.7/200.8											
	11/08/16	200.7/200.8											
	09/13/16	200.7/200.8											
	06/10/16	200.7/200.8											
	02/25/16	200.7/200.8											
	11/03/15	200.7/200.8											
	08/18/15	200.7/200.8											
	06/08/15	200.7/200.8											
	03/12/15	200.7/200.8											
	11/18/14	200.7/200.8											
MKTF-20	11/05/19	200.7/200.8											
	08/21/19	200.7/200.8											
	05/14/19	200.7/200.8											
	02/20/19	200.7/200.8											
	11/29/18	200.7/200.8											
	08/31/18	200.7/200.8											
	05/11/18	200.7/200.8											
	02/15/18	200.7/200.8											
	11/29/17	200.7/200.8											
	09/26/17	200.7/200.8											
	06/12/17	200.7/200.8											
	03/14/17	200.7/200.8											
	11/03/16	200.7/200.8											
	09/12/16	200.7/200.8											
	06/09/16	200.7/200.8											
	03/16/15	200.7/200.8											
	11/18/14	200.7/200.8											

RESULTS															
Well ID	Date Sampled	Method	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MKTF-19	10/28/19	200.7/200.8	0.013	2.1	<0.002	<0.006	<0.006	15	0.009	2.4	<0.005	0.0015	<0.0002	NA	0.03
	08/19/19	200.7/200.8	0.014	2.3	<0.002	0.007	0.007	19	0.022	2.7	0.0014	0.0017	<0.0002	0.0028	0.035
	05/09/19	200.7/200.8	0.012	2.1	<0.002	0.0019	0.0054	15	0.013	2.7	0.00091	0.0018	0.000051	0.001	0.017
	03/26/19	200.7/200.8	0.01	2	<0.002	0.0034	0.0073	11	0.01	2.6	0.002	0.0016	0.00009	0.0022	0.042
	11/28/18	200.7/200.8	0.012	1.9	<0.002	0.0043	<0.006	7.5	0.0051	2.4	<0.001	0.002	NA	NA	0.02
	08/24/18	200.7/200.8	0.014	2.1	<0.002	0.0019	0.0055	15	0.016	2.4	<0.001	0.0029	<0.0002	0.0034	0.033
	05/04/18	200.7/200.8	0.014	1.8	<0.002	<0.006	<0.006	11	0.0047	2.4	<0.001	0.0015	<0.0002	0.00073	0.0063
	02/16/18	200.7/200.8	0.01	1.7	<0.002	<0.006	<0.006	10	0.0058	2.3	0.0029	0.0018	<0.0002	0.0012	0.012
	12/01/17	200.7/200.8	0.0077	2	<0.002	<0.006	0.0056	14	0.01	2.3	<0.01	<0.005	<0.0002	0.0016	0.011
	09/26/17	200.7/200.8	0.015	2.4	<0.002	0.012	0.015	20	0.026	3.4	0.0077	<0.005	0.000042	NA	0.062
	06/14/17	200.7/200.8	0.014	2.2	<0.002	0.0059	0.01	17	0.022	3.3	<0.01	<0.005	0.000045	NA	0.1
	03/15/17	200.7/200.8	0.018	2.3	<0.002	0.0075	0.018	20	0.033	3.3	0.012	<0.005	<0.0002	0.0071	0.1
	11/08/16	200.7/200.8	0.013	2.2	<0.002	0.0088	0.015	33	0.033	2.6	0.0087	<0.005	<0.0002	0.0059	0.07
	09/13/16	200.7/200.8	0.015	2.1	<0.002	0.0057	0.0083	17	0.023	2.6	0.0079	<0.005	0.000073	0.0043	0.065
	06/10/16	200.7/200.8	0.016	2.6	<0.002	0.0082	0.012	19	0.038	3.3	0.011	<0.005	<0.0002	0.0079	0.077
	02/25/16	200.7/200.8	0.022	2.8	<0.002	0.012	0.018	23	0.069	3.9	0.019	<0.005	<0.001	0.025	0.01
	11/03/15	200.7/200.8	0.018	2.7	<0.002	<0.006	<0.006	13	0.046	3.4	0.01	<0.005	<0.0002	0.0077	0.096
	08/18/15	200.7/200.8	0.018	4.4	<0.002	0.044	0.06	64	0.14	6.3	0.0062	<0.005	<0.0002	0.024	0.22
	06/08/15	200.7/200.8	0.019	2.5	<0.002	0.024	0.017	28	0.035	4.2	<0.005	<0.005	<0.0002	0.0048	0.082
	03/12/15	200.7/200.8	0.017	2.7	<0.002	0.022	0.026	33	0.052	4.2	<0.01	<0.005	<0.0002	0.0065	0.078
	11/18/14	200.7/200.8	0.022	3.6	<0.002	0.035	0.043	47	0.079	5.6	<0.01	<0.005	<0.0002	0.014	0.11
MKTF-20	11/05/19	200.7/200.8	0.016	2	<0.002	<0.006	0.075	4.3	0.0016	2	<0.005	<0.005	0.000042	0.00052	0.44
	08/21/19	200.7/200.8	0.02	21	<0.002	<0.006	0.016	19	0.0037	7.5	0.0012	0.007	<0.0002	0.0023	0.02
	05/14/19	200.7/200.8	0.034	4.4	<0.002	<0.006	0.014	25	0.005	8.5	0.00079	0.0044	<0.0002	0.0037	0.018
	02/20/19	200.7/200.8	0.045	3.9	<0.002	<0.006	0.045	58	0.01	5.5	0.00065	<0.005	0.000073	0.0018	0.52
	11/29/18	200.7/200.8	0.025	5.5	<0.002	<0.006	0.095	8	0.0047	2.6	<0.001	0.0045	0.000049	NA	0.26
	08/31/18	200.7/200.8	0.028	4	<0.002	<0.006	0.021	5.8	0.0054	3	<0.001	0.0041	<0.0002	0.0017	0.019
	05/11/18	200.7/200.8	0.028	9	<0.002	<0.006	0.027	16	0.0088	5.5	0.012	0.0057	<0.0002	0.0052	0.023
	02/15/18	200.7/200.8	0.016	32	<0.002	<0.006	0.029	52	0.0073	16	0.01	0.011	<0.0002	0.0031	0.029
	11/29/17	200.7/200.8	0.025	9.3	<0.002	<0.006	0.045	15	0.0086	2.9	0.0096	0.0018	NA	0.0025	0.06
	09/26/17	200.7/200.8	0.026	7.6	<0.002	0.0022	0.11	19	0.0083	3.9	0.033	<0.005	<0.0002	NA	0.35
	06/12/17	200.7/200.8	0.022	7.5	<0.002	<0.006	0.02	17	0.012	4.1	0.035	<0.005	<0.0002	NA	0.02
	03/14/17	200.7/200.8	0.025	11	<0.002	<0.006	0.036	22	0.013	6.3	0.018	NA	<0.0002	0.00085	0.097
	11/03/16	200.7/200.8	0.029	9.3	<0.002	<0.006	0.019	22	0.009	8.9	0.013	<0.005	<0.0002	0.0052	0.024
	09/12/16	200.7/200.8	0.025	5.2	<0.002	<0.006	0.022	17	0.0072	4.4	0.0092	<0.005	<0.0002	0.0044	0.033
	06/09/16	200.7/200.8	0.038	4.6	<0.002	<0.006	0.09	17	0.019	5	0.0093	<0.005	0.000077	0.02	0.085
	03/16/15	200.7/200.8	0.025	2	<0.002	<0.006	0.016	11	0.0066	3.2	0.0046	<0.005	<0.0002	0.011	0.03
	11/18/14	200.7/200.8	0.017	4.5	<0.002	0.022	0.12	45	0.048	4.9	<0.005	<0.005	<0.0002	0.0066	0.19



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS																
WQCC 20 NMAC 6.2.3103 (DEC 2018)																
40 CFR 141.62 MCL																
NMED Tap Water (JUNE 2019)																
EPA RSL for Tap Water (NOVEMBER 2019)																
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
MKTF-21	11/05/19	200.7/200.8	0.022	14	<0.002	<0.006	0.014	9	0.0022	5.8	<0.001	0.0069	<0.0002	0.0027	0.096	
	08/22/19	200.7/200.8	0.017	3.4	<0.002	<0.006	0.0098	21	0.0017	3.3	0.00073	<0.005	0.00013	0.00074	0.068	
	05/14/19	200.7/200.8	0.022	5.2	<0.002	<0.006	0.02	42	0.0032	5.7	0.00084	<0.005	0.000043	0.0027	0.14	
	02/20/19	200.7/200.8	0.017	0.67	<0.002	<0.006	0.0054	63	0.0029	15	<0.005	0.011	<0.0002	0.0028	0.041	
	11/29/18	200.7/200.8	0.02	4.3	<0.002	<0.006	0.022	29	0.003	4.1	<0.001	0.0037	<0.0002	NA	0.27	
	08/31/18	200.7/200.8	0.023	4.1	<0.002	<0.006	<0.006	18	0.0014	3.7	<0.001	0.0024	0.000042	0.002	0.015	
	05/11/18	200.7/200.8	0.022	4	<0.005	<0.006	0.013	43	0.0023	5.9	0.0057	<0.005	0.000041	0.0038	0.11	
	02/15/18	200.7/200.8	0.016	2.9	<0.002	<0.006	0.013	20	0.0018	5	0.0087	<0.005	<0.0002	0.0055	0.12	
	11/28/17	200.7/200.8	0.023	4.4	<0.002	<0.006	0.0061	21	0.0013	4.9	0.0056	<0.005	NA	0.0047	0.07	
	09/26/17	200.7/200.8	0.01	2.8	<0.002	<0.006	0.0032	7.9	0.001	4	0.0098	<0.005	<0.0002	NA	0.091	
	06/21/17	200.7/200.8	0.018	4.1	<0.002	<0.006	0.01	43	0.0065	6.9	0.023	<0.005	<0.0002	0.0011	0.069	
	03/14/17	200.7/200.8	0.016	3.6	<0.002	<0.006	0.0052	29	0.0035	5.6	0.0064	<0.005	<0.0002	0.0013	0.045	
	11/03/16	200.7/200.8	0.021	4.3	<0.002	<0.006	<0.006	33	0.0033	5.1	0.0086	<0.005	<0.0002	0.0022	0.057	
	09/12/16	200.7/200.8	0.019	2.7	<0.002	<0.006	0.0064	24	0.0031	4.1	0.0085	<0.005	0.000053	0.001	0.048	
	06/10/15	--						Not enough water to collect samples								
	03/16/15	200.7/200.8	0.02	4.9	<0.002	0.029	0.1	55	0.079	6.4	<0.01	<0.005	<0.0002	0.0066	0.44	
MKTF-22	10/24/19	200.7/200.8	0.0020	1.7	<0.002	0.0016	<0.006	12	<0.005	2.9	<0.005	0.0015	0.000097	NA	0.014	
	08/20/19	200.7/200.8	0.0016	1.4	<0.002	<0.006	<0.006	8.5	0.001	2.9	<0.001	0.002	<0.0002	0.0023	<0.01	
	05/09/19	200.7/200.8	0.0018	1.9	<0.002	0.0026	<0.006	11	0.0066	3.1	0.00099	0.0022	<0.0002	0.0022	0.024	
	03/26/19	200.7/200.8	0.002	1.5	<0.002	0.0023	0.0085	8.7	0.0052	2.6	0.0015	0.0014	0.000076	0.0024	0.018	
	11/28/18	200.7/200.8	0.0019	1.4	<0.002	0.0023	<0.006	12	0.0037	2.5	<0.001	0.003	NA	NA	0.0077	
	08/30/18	200.7/200.8	0.002	1.3	<0.002	<0.006	<0.006	7.4	0.002	2.5	<0.001	0.0024	0.000049	0.0024	0.0059	
	05/10/18	200.7/200.8	0.00091	1.3	<0.002	<0.006	<0.006	4.4	0.00043	2.5	0.0013	0.0028	0.000047	0.0023	<0.01	
	02/08/18	200.7/200.8	0.0025	1.4	<0.002	<0.006	<0.006	8.3	0.0039	2.5	0.0021	0.0026	0.000093	0.0026	0.0078	
	11/28/17	200.7/200.8	<0.02	1.5	<0.002	<0.006	0.0043	7.9	0.0048	2.6	<0.005	0.0017	NA	0.0026	0.008	
	10/03/17	200.7/200.8	0.0024	1.8	<0.002	0.017	0.017	25	0.027	3	0.0022	<0.005	<0.0002	NA	0.034	
	06/08/17	200.7/200.8	0.0016	1.3	<0.002	0.0075	0.0061	10	0.01	2.4	0.0019	<0.005	0.000066	0.0033	0.015	
	03/08/17	200.7/200.8	0.0041	2	<0.002	0.01	0.015	17	0.029	3.3	0.0067	<0.005	<0.0002	NA	0.032	
	11/01/16	200.7/200.8	0.0044	1.7	<0.002	0.0062	0.0096	12	0.033	3.1	0.0047	<0.005	<0.0002	0.0041	0.02	
	09/10/16	200.7/200.8	0.0032	1.3	<0.002	0.0051	<0.006	8.8	0.0072	2.6	0.0045	<0.005	<0.0002	0.004	0.011	
	06/10/16	200.7/200.8	0.0025	2.2	<0.002	0.0062	<0.006	17	0.022	3.7	0.0039	<0.005	<0.0002	0.0047	0.033	
	02/25/16	200.7/200.8	0.0023	2	<0.002	0.012	0.013	20	0.035	3.4	0.0025	<0.005	<0.0002	0.0039	0.039	
	11/09/15	200.7/200.8	0.0036	1.4	<0.002	0.0099	0.019	18	0.029	3.1	<0.01	<0.005	<0.0002	0.0078	0.032	
	08/20/15	200.7/200.8	0.0076	5.6	<0.002	0.1	0.15	87	0.24	9.1	0.0074	<0.005	<0.0002	0.031	0.21	
	06/09/15	200.7/200.8	<0.005	2.2	<0.002	0.018	0.026	27	0.048	3.6	<0.005	<0.005	<0.0002	0.0053	0.057	
	03/12/15	200.7/200.8	<0.01	2.1	<0.002	0.018	0.015	21	0.035	3.5	<0.01	<0.005	<0.0002	0.0047	0.038	
		11/17/14	200.7/200.8	0.0028	1.1	<0.002	<0.006	<0.006	15	0.014	3	0.004	<0.005	<0.0002	0.0041	0.025



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-23	10/29/19	200.7/200.8												
	08/20/19	--												
	05/09/19	--												
	03/26/19	200.7/200.8												
	06/10/16	200.7/200.8												
	02/25/16	200.7/200.8												
	11/10/15	200.7/200.8												
	08/21/15	200.7/200.8												
	06/09/15	200.7/200.8												
	03/12/15	200.7/200.8												
	11/17/14	200.7/200.8												
Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10		
0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE		
0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96		
0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6		
0.009	1.9	<0.002	<0.006	<0.006	0.51	0.0019	1.9	<0.005	0.0015	<0.0002	NA	<0.01		
SPH Detected - No samples were collected.														
0.0063	1.5	<0.002	0.0029	<0.006	0.64	0.0017	2	0.00055	<0.005	0.00008	0.01	<0.01		
0.013	0.8	<0.002	0.0029	<0.006	4.1	0.0094	1.7	0.0094	<0.005	<0.0002	0.0056	0.016		
0.0094	0.67	<0.002	<0.006	<0.006	3.8	0.0025	1.6	0.0035	<0.005	<0.0002	0.0027	0.0054		
0.013	0.66	<0.002	<0.006	<0.006	0.29	0.0009	1.4	<0.02	<0.005	<0.0002	0.037	<0.01		
0.014	0.9	<0.002	0.0062	0.008	5.4	0.0088	1.7	<0.005	<0.005	<0.0002	0.032	0.022		
0.011	0.83	<0.002	<0.006	0.012	5.4	0.0093	1.6	<0.005	<0.005	<0.0002	0.011	0.027		
0.013	0.64	<0.002	<0.006	<0.006	5.2	0.0035	1.8	0.01	<0.005	<0.0002	0.0062	0.011		
0.011	0.49	<0.002	<0.006	<0.006	6.2	0.005	1.6	0.0067	<0.005	<0.0002	0.016	0.035		







8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (JUNE 2019)															
EPA RSL for Tap Water (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD													
MKTF-25	10/23/19	200.7/200.8	0.0064	0.94	<0.002	0.0086	0.011	10	0.012	5.8	<0.005	0.0044	0.00016	NA	0.021
	08/27/19	200.7/200.8	0.0027	0.39	<0.002	<0.006	0.017	1.8	0.0077	3.9	0.0014	0.0031	0.000054	0.036	0.012
	05/06/19	200.7/200.8	0.0019	0.61	<0.002	0.0035	0.021	4.7	0.007	2.2	<0.005	0.0041	0.000048	0.031	0.013
	02/14/19	--	Well not sampled.												
	11/15/18	200.7/200.8	0.0058	0.46	<0.002	0.1	0.017	2.9	0.0037	3.1	<0.001	0.0035	0.0001	0.055	0.01
	08/17/18	200.7/200.8	0.0055	0.48	<0.002	0.0033	0.011	12	0.0063	3	<0.005	0.0023	0.000049	0.029	0.013
	05/06/18	200.7/200.8	0.0053	0.33	<0.002	<0.06	0.0056	2.6	0.0021	2.7	<0.001	0.0015	0.000062	0.028	0.0039
	02/05/18	200.7/200.8	0.0035	0.42	<0.002	<0.006	0.012	4.3	0.0062	3.2	<0.01	0.0036	0.000067	0.028	0.011
	11/21/17	200.7/200.8	0.004	0.34	<0.002	0.0032	0.016	4.5	0.0053	2.7	<0.005	<0.005	<0.0002	0.026	0.0086
	09/25/17	200.7/200.8	0.0052	0.38	<0.002	0.0048	0.0098	4.1	0.0057	2.8	0.0061	<0.005	0.00004	NA	0.0086
	06/05/17	200.7/200.8	0.0047	0.28	<0.002	0.0052	0.008	4.8	0.007	2.9	0.0034	<0.005	0.000056	0.032	0.0084
	03/29/17	200.7/200.8	0.0059	0.58	<0.002	0.0091	0.019	8.7	0.02	3.7	0.005	<0.005	0.00007	0.028	0.021
	11/01/16	200.7/200.8	0.0047	0.39	<0.002	0.0075	0.021	3.2	0.005	2.8	0.0062	<0.005	<0.0002	0.032	0.0072
	09/09/16	200.7/200.8	0.0044	0.45	<0.002	<0.006	0.006	4.3	0.0063	3.4	0.0059	<0.005	0.000054	0.027	0.012
	06/09/16	200.7/200.8	0.0041	1.6	<0.002	0.013	0.034	15	0.043	5.6	0.007	<0.005	0.00013	0.034	0.038
	02/23/16	200.7/200.8	0.0028	0.31	<0.002	<0.006	<0.006	1.4	0.0028	3.1	0.0024	<0.005	0.000071	0.029	0.0048
	11/05/15	200.7/200.8	0.0049	0.81	<0.002	0.0075	0.019	7.9	0.019	3.9	0.0076	<0.005	<0.0002	0.033	0.021
	08/21/15	200.7/200.8	0.0039	0.49	<0.002	0.0065	0.016	5.2	0.0084	3.7	0.0038	<0.005	<0.0002	0.033	0.015
	06/10/15	200.7/200.8	<0.005	0.48	<0.002	<0.006	0.0083	5.7	0.0089	3.7	<0.005	<0.005	<0.0002	0.033	0.018
	03/11/15	200.7/200.8	0.0041	0.58	<0.002	0.0064	0.014	7.5	0.013	3.9	0.0058	<0.005	<0.0002	0.038	0.017
	11/14/14	200.7/200.8	<0.005	0.37	<0.002	<0.006	0.011	2.7	0.0074	3.6	<0.01	<0.005	<0.0002	0.03	0.013



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (JUNE 2019)															
EPA RSL for Tap Water (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD													
MKTF-26	06/09/16	200.7/200.8	0.005	0.75	<0.002	0.011	0.028	20	0.03	1.6	0.061	<0.005	0.00021	0.099	0.073
	02/22/16	200.7/200.8	0.0025	0.23	<0.002	0.0034	0.011	64	0.009	1.1	0.0029	<0.005	0.00014	0.089	0.029
	11/04/15	200.7/200.8	0.005	0.26	<0.002	<0.006	0.016	9.8	0.013	1.3	<0.05	<0.005	<0.0002	0.059	0.04
	08/20/15	200.7/200.8	0.0053	0.23	<0.002	<0.006	0.01	5.4	0.0067	1.4	0.0062	<0.005	<0.0002	0.092	0.022
	06/10/15	200.7/200.8	<0.005	0.18	<0.002	<0.006	<0.006	2.7	0.003	1.3	<0.005	<0.005	<0.0002	0.054	0.015
	03/11/15	200.7/200.8	0.004	0.2	<0.002	<0.006	<0.006	3.1	0.0029	1.3	0.0047	<0.005	<0.0002	0.045	0.012
	11/14/14	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	1.3	<0.005	1.4	<0.01	<0.005	<0.0002	0.077	0.014
MKTF-27	10/23/19	200.7/200.8	<0.005	0.044	<0.002	<0.006	0.0045	0.19	<0.0025	0.13	<0.005	0.0053	0.0001	NA	<0.01
	08/21/19	200.7/200.8	0.0015	0.061	<0.002	<0.006	0.015	1.1	0.0012	0.58	0.0022	0.0044	0.00011	0.028	<0.01
	05/06/19	200.7/200.8	<0.005	0.086	<0.002	<0.006	0.013	2.2	0.0019	0.7	0.0041	0.0092	0.00005	0.03	0.011
	03/28/19	200.7/200.8	<0.005	0.055	<0.002	<0.006	0.0093	1.1	0.00089	0.077	0.0055	0.0066	0.000046	0.028	<0.01
	11/15/18	200.7/200.8	0.0039	0.076	<0.002	<0.006	<0.006	1.2	0.0015	0.42	<0.001	0.0067	0.00004	0.036	0.0072
	08/20/18	200.7/200.8	0.004	0.17	<0.002	0.0042	0.0082	6.7	0.0065	1.2	<0.005	0.0058	0.000074	0.035	0.025
	05/01/18	200.7/200.8	0.008	0.14	<0.002	<0.006	0.0092	3.4	0.0029	0.69	<0.01	0.0074	0.000074	0.037	0.014
	02/06/18	200.7/200.8	<0.005	0.16	<0.002	0.0026	0.0074	4.1	0.0041	0.52	<0.01	0.0032	0.000094	0.038	0.024
	11/20/17	200.7/200.8	0.003	0.19	<0.002	<0.006	0.0084	6.1	0.0057	0.92	<0.01	0.0021	<0.0002	0.052	0.017
	10/03/17	200.7/200.8	0.0048	0.1	<0.002	0.0019	0.0038	2.1	0.0024	0.4	0.013	<0.005	<0.0002	NA	0.013
	06/05/17	200.7/200.8	0.0042	0.15	<0.002	0.004	0.0029	4.8	0.0053	0.63	0.011	<0.005	0.000056	0.07	0.017
	03/29/17	200.7/200.8	0.015	0.26	<0.002	0.0054	<0.006	9.8	0.0096	1.5	0.022	<0.005	0.000071	0.097	0.032
	10/28/16	200.7/200.8	0.0028	0.089	<0.002	<0.006	<0.006	1.5	0.0022	0.24	0.0088	<0.005	<0.0002	0.063	0.029
	09/07/16	200.7/200.8	0.0035	0.12	<0.002	0.0035	<0.006	3.7	0.0051	0.58	0.01	<0.005	0.000062	0.06	0.017
	06/08/16	200.7/200.8	0.0042	0.21	<0.002	0.0053	<0.006	9.6	0.011	0.93	0.011	<0.005	0.000086	0.059	0.041
	02/22/16	200.7/200.8	0.0015	0.12	<0.002	0.0025	<0.006	3.6	0.0044	0.43	0.0034	<0.005	0.000095	0.063	0.02
	11/04/15	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	7.4	0.0073	0.93	<0.02	<0.005	<0.0002	0.064	0.029
	08/20/15	200.7/200.8	<0.005	0.18	<0.002	<0.006	<0.006	6.2	0.0064	0.7	0.0056	<0.005	<0.0002	0.071	0.027
06/09/15	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	4.1	<0.005	0.58	<0.01	<0.005	<0.0002	0.067	0.023	
03/11/15	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	3.3	<0.01	0.27	<0.01	<0.005	<0.0002	0.071	0.014	
11/14/14	200.7/200.8	<0.005	0.13	<0.002	<0.006	<0.006	3.4	<0.005	0.5	<0.01	<0.005	<0.0002	0.087	0.024	



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-28	10/22/19	200.7/200.8	0.0019	0.081	<0.002	<0.006	0.0041	1.6	0.0019	0.12	<0.005	0.00005	NA	0.013
	08/21/19	200.7/200.8	0.0014	0.065	<0.002	<0.006	<0.006	0.79	0.00099	0.074	<0.005	0.00011	0.13	<0.01
	05/06/19	200.7/200.8	<0.01	0.1	<0.002	0.0017	0.006	3.9	0.0043	0.26	<0.005	0.000049	0.14	0.018
	03/28/19	200.7/200.8	0.0014	0.071	<0.002	<0.006	<0.006	1.4	0.0015	0.094	<0.005	0.000086	0.14	0.0059
	11/15/18	200.7/200.8	0.0017	0.071	<0.002	<0.006	<0.006	1	0.00095	0.069	<0.005	<0.0002	0.14	0.0061
	08/20/18	200.7/200.8	0.0024	0.077	<0.002	0.0024	<0.006	4.4	0.0029	0.15	<0.005	<0.0002	0.14	0.013
	05/01/18	200.7/200.8	0.0024	0.082	<0.002	<0.006	<0.006	2.6	0.0022	0.13	<0.005	0.000075	0.15	0.016
	02/06/18	200.7/200.8	<0.005	0.08	<0.002	<0.006	0.0049	1.6	0.00019	0.093	<0.005	0.000081	0.15	0.015
	11/20/17	200.7/200.8	<0.01	0.054	<0.002	<0.006	<0.006	0.14	<0.0005	0.091	<0.005	NA	0.13	0.0045
	10/03/17	200.7/200.8	0.0051	0.07	<0.002	<0.006	0.004	1.4	0.0015	0.11	<0.005	<0.0002	NA	0.008
	06/05/17	200.7/200.8	0.0048	0.076	<0.002	<0.006	0.0032	1.6	0.0016	0.078	<0.005	<0.0002	0.16	0.0057
	03/29/17	200.7/200.8	0.0089	0.36	<0.002	0.0093	0.013	21	0.025	0.89	<0.005	0.000088	0.16	0.079
	10/28/16	200.7/200.8	0.0044	0.13	<0.002	<0.006	0.0031	3.3	0.0056	0.18	<0.005	<0.001	0.15	0.015
	09/08/16	200.7/200.8	0.0056	0.26	<0.002	0.0067	0.0094	11	0.014	0.44	<0.005	0.00011	0.14	0.049
	06/08/16	200.7/200.8	0.0059	0.14	<0.002	<0.006	<0.006	4.7	0.0054	0.21	<0.005	<0.0002	0.15	0.018
	02/23/16	200.7/200.8	0.0032	0.14	<0.002	0.0028	<0.006	3.7	0.0047	0.18	<0.005	0.000069	0.16	0.018
	11/04/15	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	7.4	0.0072	0.32	<0.005	<0.001	0.14	0.028
	08/20/15	200.7/200.8	<0.01	0.18	<0.002	<0.006	0.0077	4.8	0.005	0.2	<0.005	<0.0002	0.17	0.02
	06/09/15	200.7/200.8	<0.01	0.19	<0.002	0.0064	<0.006	5.2	0.0051	0.2	<0.005	<0.0002	0.16	0.022
	03/11/15	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	2.5	0.0028	0.097	<0.005	<0.0002	0.17	0.014
	11/14/14	200.7/200.8	0.0054	0.12	<0.002	<0.006	<0.006	2	<0.005	0.38	<0.005	<0.0002	0.11	0.015



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-29	10/22/19	200.7/200.8											
	08/23/19	200.7/200.8											
	05/06/19	200.7/200.8											
	03/28/19	200.7/200.8											
	11/15/18	200.7/200.8											
	08/20/18	200.7/200.8											
	05/01/18	200.7/200.8											
	02/06/18	200.7/200.8											
	11/20/17	200.7/200.8											
	10/03/17	200.7/200.8											
	06/05/17	200.7/200.8											
	03/29/17	200.7/200.8											
	10/28/16	200.7/200.8											
	09/07/16	200.7/200.8											
	06/09/16	200.7/200.8											
	02/23/16	200.7/200.8											
	11/04/15	200.7/200.8											
	08/20/15	200.7/200.8											
	06/10/15	200.7/200.8											
	03/11/15	200.7/200.8											



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-30	10/23/19	0.0019	0.16	<0.002	0.0033	<0.006	4.9	0.0034	0.50	<0.005	0.0016	0.00022	NA	0.012
	08/23/19	0.019	0.27	<0.002	0.0061	0.0075	7	0.0073	0.95	0.0012	<0.005	0.00012	0.031	0.02
	05/06/19	<0.005	0.16	<0.002	0.0046	<0.006	5.3	0.0042	0.21	<0.005	0.0019	<0.005	0.034	0.013
	03/28/19	0.0021	0.25	<0.002	0.0068	<0.006	9.5	0.0084	0.41	<0.005	<0.005	0.000084	0.038	0.025
	11/15/18	0.0012	0.048	<0.002	<0.006	<0.006	0.75	0.00076	0.19	<0.001	0.0019	<0.0002	0.028	0.0048
	08/20/18	0.0015	0.057	<0.002	0.0021	<0.006	2.4	0.0011	0.15	<0.001	<0.005	0.000045	0.031	0.0069
	05/01/18	0.0023	0.11	<0.002	0.0041	0.0047	5.1	0.0029	0.14	<0.005	<0.005	0.000083	0.039	0.014
	02/06/18	0.0017	0.087	<0.002	0.003	0.0051	2.8	0.0025	0.12	<0.005	<0.005	0.00007	0.03	0.011
	11/20/17	0.0025	0.081	<0.002	0.002	0.006	2.5	0.0021	0.21	<0.005	<0.005	<0.0002	0.031	0.021
	10/03/17	0.0023	0.18	<0.002	0.0075	0.0068	7.1	0.007	0.66	0.0036	<0.005	<0.0002	NA	0.018
	06/05/17	0.0024	0.26	<0.002	0.0077	0.006	8.5	0.007	0.38	0.0035	<0.005	0.00006	0.044	0.017
	03/29/17	0.0035	0.33	<0.002	0.0078	0.0043	7.9	0.0093	0.5	0.0073	<0.005	0.000042	0.033	<0.01
	10/28/16	0.0022	0.16	<0.002	0.0031	<0.006	3	0.0045	0.32	0.0065	<0.005	<0.0002	0.03	0.0088
	09/07/16	0.0024	0.074	<0.002	<0.006	<0.006	1.7	0.0039	0.18	0.0081	<0.005	0.000068	0.027	0.0063
	06/09/16	0.0033	0.83	<0.002	0.0098	0.0066	13	0.022	1.1	0.0069	<0.005	0.0001	0.035	0.039
	02/23/16	0.0017	0.12	<0.002	0.0032	<0.006	3.3	0.0041	0.18	0.0031	<0.005	0.000069	0.029	0.013
	11/04/15	<0.005	0.24	<0.002	<0.006	<0.006	7.1	0.0097	0.54	<0.02	<0.005	<0.0002	0.026	0.021
	08/20/15	<0.005	0.29	<0.002	0.011	0.0084	8.4	0.0094	0.55	<0.01	<0.005	<0.0002	0.032	0.024
	06/10/15	<0.005	0.28	<0.002	0.0067	<0.006	7.7	0.0089	0.57	<0.01	<0.005	<0.0002	0.034	0.024
	03/11/15	<0.005	0.29	<0.002	0.0072	<0.006	8.6	0.011	0.64	0.0079	<0.005	<0.0002	0.044	0.021
	11/17/14	<0.005	0.26	<0.002	0.007	<0.006	8	0.009	0.72	0.01	<0.005	<0.0002	0.039	0.029



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-31	10/24/19	200.7/200.8												
	08/23/19	200.7/200.8												
	05/06/19	200.7/200.8												
	02/20/19	200.7/200.8												
	11/15/18	200.7/200.8												
	08/17/18	200.7/200.8												
	05/06/18	200.7/200.8												
	02/05/18	200.7/200.8												
	11/21/17	200.7/200.8												
	09/25/17	200.7/200.8												
	06/05/17	200.7/200.8												
	03/07/17	200.7/200.8												
	10/31/16	200.7/200.8												
	09/08/16	200.7/200.8												
	06/09/16	200.7/200.8												
	02/23/16	200.7/200.8												
	11/04/15	200.7/200.8												
	08/21/15	200.7/200.8												
	06/10/15	200.7/200.8												
	03/11/15	200.7/200.8												
	11/17/14	200.7/200.8												
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
		<0.005	0.21	<0.002	0.0025	<0.006	3.8	<0.0005	0.17	<0.005	0.0029	<0.0002	NA	0.011
		0.00098	0.16	<0.002	<0.006	<0.006	2	0.0018	0.074	0.00091	0.0023	0.00012	0.039	0.0091
		<0.005	0.21	<0.002	<0.006	<0.006	2.1	0.0016	0.052	<0.005	0.0059	<0.0002	0.046	0.0084
		<0.005	0.17	<0.002	<0.006	<0.006	1.7	0.0016	0.06	<0.005	0.0033	0.000054	0.039	<0.01
		0.0023	0.21	<0.002	0.0019	<0.006	4.1	0.0046	0.16	<0.001	0.0038	0.000062	0.042	0.013
		<0.005	0.15	<0.002	<0.006	<0.006	2	<0.0025	0.098	<0.005	0.0033	0.000067	0.038	0.0048
		0.0021	0.13	<0.002	<0.006	<0.006	0.77	0.00061	0.053	<0.005	0.0025	0.000041	0.044	0.0034
		<0.005	0.15	<0.002	<0.006	<0.006	2	0.0021	0.097	<0.005	0.0052	0.000054	0.044	0.0068
		0.0021	0.14	<0.002	<0.006	0.0044	2	0.0018	0.083	<0.005	0.0018	<0.0002	0.039	<0.01
		0.0025	0.17	<0.002	0.0023	<0.006	1.3	0.0023	0.14	0.0081	<0.005	<0.0002	NA	0.0043
		0.0026	0.16	<0.002	0.0019	<0.006	1.3	0.0014	0.053	0.0069	<0.005	0.000059	0.051	0.0052
		0.0049	0.25	<0.002	0.0027	<0.006	3.8	0.005	0.19	0.011	<0.005	<0.0002	NA	0.013
		0.0026	0.18	<0.002	<0.006	<0.006	1.5	0.0031	0.11	0.0064	<0.005	<0.0002	0.041	0.0098
		0.0029	0.2	<0.002	<0.006	0.0065	1.7	0.0043	0.17	<0.05	<0.005	0.00009	0.044	0.013
		0.0022	0.33	<0.002	0.0051	<0.006	4.8	0.0084	0.34	0.0076	<0.005	0.000082	0.046	0.017
		<0.005	0.18	<0.002	0.0023	<0.006	2.5	0.0036	0.13	0.0026	<0.005	0.000068	0.045	0.011
		<0.005	0.26	<0.002	<0.006	<0.006	4	0.0064	0.25	<0.02	<0.005	<0.0002	0.041	0.015
		<0.01	0.19	<0.002	<0.006	<0.006	3.1	0.0032	0.13	0.0046	<0.005	<0.0002	0.049	<0.01
		<0.005	0.17	<0.002	<0.006	<0.006	2.9	0.0029	0.11	<0.005	<0.005	<0.0002	0.049	0.011
		<0.01	0.2	<0.002	<0.006	<0.006	2.2	<0.01	0.12	<0.01	<0.005	<0.0002	0.056	<0.01
		<0.005	0.22	<0.002	<0.006	<0.006	2.9	0.0041	0.24	0.008	<0.005	<0.0002	0.05	0.017



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-32	10/23/19	0.0034	0.19	<0.002	0.003	0.0046	5.5	0.0042	0.16	<0.005	0.00019	NA	0.023
	08/20/19	0.0024	0.076	<0.002	<0.006	0.005	1.2	0.0013	0.11	<0.005	<0.0002	0.056	0.0059
	05/07/19	0.0024	0.084	<0.002	<0.006	<0.006	1.5	0.0015	0.12	<0.005	0.000066	0.057	<0.01
	02/13/19	0.0024	0.056	<0.002	<0.006	<0.006	0.17	0.00031	0.079	<0.005	0.000042	0.049	<0.01
	11/15/18	0.0026	0.07	<0.002	<0.006	0.0042	0.81	0.00099	0.1	<0.005	0.000047	0.055	0.0068
	08/28/18	0.0032	0.12	<0.002	<0.006	0.0083	2.9	0.0023	0.11	<0.005	0.000083	0.055	0.014
	05/09/18	0.0029	0.055	<0.002	<0.006	0.0049	0.51	0.00043	0.06	<0.005	0.000058	0.058	<0.01
	02/07/18	<0.005	0.1	<0.002	0.0031	0.0064	2.1	0.0019	0.11	<0.005	0.000096	0.06	0.013
	11/27/17	<0.005	0.067	<0.002	<0.006	0.0042	0.75	<0.0025	0.079	<0.005	<0.0002	0.058	<0.01
	09/25/17	0.0035	0.1	<0.002	0.0035	<0.006	2.2	0.0021	0.15	0.0013	0.000069	NA	<0.01
	06/06/17	0.0046	0.22	<0.002	0.0064	0.011	6.4	0.0055	0.23	<0.005	0.000068	0.065	0.024
	03/07/17	0.0046	0.055	<0.002	<0.006	<0.006	0.51	0.00083	0.08	<0.005	<0.0002	NA	0.003
	10/31/16	0.0044	0.1	<0.002	0.0028	0.0042	3	0.0033	0.13	<0.005	<0.0002	0.059	0.012
	09/09/16	0.0047	0.086	<0.002	<0.006	0.013	1.8	0.0023	0.12	<0.005	<0.0002	0.058	0.016
	06/09/16	0.0042	0.35	<0.002	0.0072	<0.006	7	0.01	0.4	<0.005	0.00012	0.066	0.036
	02/24/16	0.0034	0.097	<0.002	<0.006	<0.006	2	0.0028	0.13	<0.005	<0.0002	0.062	0.013
	11/05/15	0.0052	0.16	<0.002	<0.006	<0.006	3.2	0.0046	0.22	<0.005	<0.0002	0.061	0.015
	08/21/15	0.0037	0.24	<0.002	0.0072	<0.006	6.1	0.0072	0.3	<0.005	<0.0002	0.073	0.029
	06/09/15	<0.005	0.24	<0.002	<0.006	0.018	5.7	0.0063	0.31	<0.005	<0.0002	0.066	0.034
	03/12/15	<0.01	0.085	<0.002	<0.006	<0.006	1.6	0.0018	0.12	<0.005	<0.0002	0.067	<0.01
	11/17/14	<0.005	0.091	<0.002	<0.006	<0.006	2	0.0027	0.23	<0.005	<0.0002	0.067	0.014



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-33	10/24/19	200.7/200.8												
	08/20/19	200.7/200.8												
	05/09/19	200.7/200.8												
	03/26/19	200.7/200.8												
	11/28/18	200.7/200.8												
	08/30/18	200.7/200.8												
	05/10/18	200.7/200.8												
	02/08/18	200.7/200.8												
	11/28/17	200.7/200.8												
	09/25/17	200.7/200.8												
	06/08/17	200.7/200.8												
	03/08/17	200.7/200.8												
	11/01/16	200.7/200.8												
	09/10/16	200.7/200.8												
	06/10/16	200.7/200.8												
	02/25/16	200.7/200.8												
	11/09/15	200.7/200.8												
	08/21/15	200.7/200.8												
	06/09/15	200.7/200.8												
	03/12/15	200.7/200.8												
	11/17/14	200.7/200.8												
Arsenic (mg/L)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
0.01		2	0.005	0.1	1.3	NE	NE	0.015	NE	0.05	NE	0.002	0.03	NE
0.000855		3.28	0.00624	0.0057	0.7898	13.8	NE	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
0.000052		3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6	6
0.0011		0.21	<0.002	0.0021	<0.006	4.5	0.0031	0.48	0.00055	<0.0050	0.00013	NA	0.012	0.012
0.001		0.16	<0.002	<0.006	<0.006	2.6	0.0029	0.57	0.00095	0.0015	<0.0002	0.035	0.01	0.01
0.0011		0.25	<0.002	0.0033	0.0051	4.4	0.004	0.32	<0.001	<0.005	0.00008	0.033	0.025	0.025
0.00072		0.099	<0.002	<0.006	0.0041	0.88	0.00085	0.4	0.00054	0.0017	0.000092	0.036	<0.01	<0.01
0.001		0.13	<0.002	<0.006	0.0045	2.7	0.0019	0.45	<0.001	0.0024	NA	NA	0.007	0.007
0.0012		0.12	<0.002	<0.006	<0.006	3.1	0.0019	0.42	<0.001	<0.005	0.000047	0.032	0.0091	0.0091
0.00059		0.1	<0.002	<0.006	<0.006	1.6	0.0016	0.22	<0.001	0.0017	0.000064	0.034	0.0043	0.0043
0.0018		0.15	<0.002	0.002	<0.006	4	0.0037	0.41	0.0015	0.0017	0.000098	0.035	0.011	0.011
<0.02		0.18	<0.002	<0.006	0.0045	3	0.0036	0.39	0.0011	<0.005	NA	0.033	0.0095	0.0095
<0.005		0.22	<0.002	0.0058	<0.006	4.4	0.0046	0.6	<0.005	<0.005	<0.0002	NA	0.012	0.012
0.002		0.49	<0.002	0.01	0.0062	9.8	0.013	0.83	0.003	<0.005	0.000081	0.037	0.028	0.028
0.0024		0.13	<0.002	<0.006	<0.006	3.6	0.0027	0.41	0.0054	<0.005	<0.0002	NA	0.0067	0.0067
0.0021		0.11	<0.002	<0.006	<0.006	3.1	0.0025	0.25	0.0024	<0.005	<0.0002	0.034	0.006	0.006
<0.005		0.091	<0.002	<0.006	<0.006	1.6	0.0027	0.31	0.0031	<0.005	<0.0002	0.036	0.0075	0.0075
0.0019		0.33	<0.002	0.0075	<0.006	6.2	0.0098	0.96	0.0038	<0.005	0.000056	0.04	0.028	0.028
0.0012		1.3	<0.002	0.015	0.022	18	0.0067	2.7	0.0016	<0.005	<0.0002	0.04	0.016	0.016
0.0036		1.3	<0.002	0.015	0.022	18	0.036	2.7	<0.005	<0.005	<0.0002	0.045	0.065	0.065
0.002		0.74	<0.002	0.015	0.01	14	0.022	1.6	0.0019	<0.005	<0.0002	0.049	0.048	0.048
<0.005		0.26	<0.002	<0.006	<0.006	4.1	0.0058	0.7	<0.005	<0.005	<0.0002	0.044	0.02	0.02
<0.005		0.25	<0.002	0.0062	<0.006	3.7	0.0059	0.68	0.0041	<0.005	<0.0002	0.045	0.014	0.014
0.0016		0.18	<0.002	<0.006	<0.006	3.3	0.005	0.92	0.0031	<0.005	<0.0002	0.043	0.018	0.018



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTf-34	10/29/19	200.7/200.8												
	08/19/19	200.7/200.8												
	05/09/19	200.7/200.8												
	03/26/19	200.7/200.8												
	11/28/18	200.7/200.8												
	08/24/18	200.7/200.8												
	05/04/18	200.7/200.8												
	02/16/18	200.7/200.8												
	12/01/17	200.7/200.8												
	09/26/17	200.7/200.8												
	06/14/17	200.7/200.8												
	03/01/17	200.7/200.8												
	11/08/16	200.7/200.8												
	09/13/16	200.7/200.8												
	06/10/16	200.7/200.8												
	02/25/16	200.7/200.8												
	11/03/15	200.7/200.8												
	08/18/15	200.7/200.8												
	06/08/15	200.7/200.8												
	03/12/15	200.7/200.8												
	11/17/14	200.7/200.8												
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
		<0.005	0.17	<0.002	<0.006	<0.006	1.3	0.001	0.033	0.0044	0.0025	0.00015	NA	0.014
		0.00095	0.19	<0.002	<0.006	<0.006	2	0.0014	0.045	0.0014	0.0019	0.000099	0.02	0.017
		0.00065	0.25	<0.002	<0.006	<0.006	0.94	0.00089	0.024	0.0014	0.0036	<0.0002	0.015	0.0092
		0.00045	0.35	<0.002	<0.006	<0.006	0.39	0.0044	0.011	0.00088	0.0039	0.000082	0.012	<0.01
		0.0012	0.053	<0.002	<0.006	<0.006	0.63	0.00048	0.013	0.0022	0.0016	NA	NA	0.0079
		0.0016	0.06	<0.002	<0.006	<0.006	0.83	0.00073	0.022	0.0024	0.0022	0.0004	0.03	0.012
		0.0015	0.049	<0.002	<0.006	<0.006	0.34	0.00033	0.0078	0.0027	<0.005	0.00015	0.037	0.0068
		0.0044	0.083	<0.002	<0.006	<0.006	2.2	0.0023	0.045	0.0053	<0.005	0.00021	0.038	0.018
		0.0016	0.093	<0.002	<0.006	<0.006	2.2	0.0022	0.039	0.0063	<0.005	0.000041	0.038	0.012
		0.004	0.12	<0.002	0.0032	0.0033	3.8	0.0018	0.086	0.012	<0.005	0.00012	NA	0.032
		0.0019	0.099	<0.002	0.0016	<0.006	1.6	0.0017	0.037	0.011	<0.005	0.00005	NA	0.015
		0.0034	0.11	<0.002	<0.006	<0.006	1.8	0.002	0.049	0.011	NA	0.00018	NA	0.018
		0.0026	0.085	<0.002	<0.006	<0.006	0.66	0.00087	0.017	0.011	<0.005	0.00024	0.038	0.0074
		0.0044	0.12	<0.002	<0.006	<0.006	0.62	0.0008	0.014	0.011	<0.005	0.00015	0.034	0.0078
		0.0047	0.15	<0.002	<0.006	<0.006	2.3	0.0026	0.054	0.014	<0.005	<0.0002	0.032	0.024
		0.003	0.15	<0.002	<0.006	<0.006	1.6	0.0016	0.044	0.0067	<0.005	<0.0002	0.032	0.023
		<0.005	0.15	<0.002	<0.006	<0.006	1	0.0012	0.03	<0.02	<0.005	<0.0002	0.027	0.012
		<0.005	0.17	<0.002	<0.006	<0.006	2.4	0.0027	0.074	0.0086	<0.005	<0.0002	0.031	0.03
		<0.005	0.2	<0.002	<0.006	<0.006	2.3	<0.0025	0.066	<0.01	<0.005	<0.0002	0.028	0.024
		<0.01	0.25	<0.002	<0.006	<0.006	5.2	0.0045	0.15	0.013	<0.005	<0.0002	0.028	0.059
		<0.01	0.17	<0.002	<0.006	<0.006	2.4	0.0014	0.075	<0.02	<0.005	<0.0002	0.026	0.037



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MKTF-35	10/29/19	0.022	2.7	<0.002	0.0017	<0.006	8.3	0.0062	3.5	<0.005	0.0027	<0.0002	NA	0.014
	08/19/19	0.004	3.3	<0.002	0.0052	0.0072	9.8	0.011	4	0.0017	0.0027	0.000042	0.0089	0.025
	05/16/19	0.0011	0.32	<0.002	<0.006	<0.006	4.5	0.0039	3.7	0.00064	0.0022	<0.0002	0.0038	<0.01
	03/26/19	0.0019	1.87	<0.002	<0.006	<0.006	7.7	0.0055	3.4	0.0012	0.0021	0.000085	0.0036	0.014
	11/28/18	0.0019	1.1	<0.002	0.0027	<0.006	6.7	0.0031	3	<0.001	0.0033	NA	NA	0.0074
	08/23/18	0.0027	1.2	<0.002	<0.006	<0.006	5.6	0.0037	3.4	<0.001	0.0031	0.000099	0.0034	0.0084
	05/03/18	0.0036	2.2	<0.002	0.0036	0.0059	8.5	0.0073	4	<0.001	0.0016	0.000055	0.0038	0.014
	02/15/18	0.0037	1.3	<0.002	<0.006	<0.006	6.2	0.0045	3.4	0.0041	0.0023	<0.0002	0.0034	0.012
	11/30/17	0.00075	1.6	<0.002	<0.006	<0.006	6.9	0.005	3.6	<0.005	0.0018	0.00004	0.0028	<0.01
	09/27/17	0.0035	5.2	<0.002	0.014	0.013	14	0.017	5	0.0057	<0.005	0.000054	NA	0.027
	06/14/17	0.0023	3.9	<0.002	0.0088	0.0097	11	0.013	4.4	0.0075	<0.005	0.000045	NA	0.022
	03/01/17	0.0021	1.9	<0.002	0.0055	<0.006	8.6	0.0087	4.3	0.0029	<0.005	0.00015	NA	0.016
	11/03/16	0.0035	1.2	<0.002	0.011	0.012	22	0.019	5.5	0.0024	<0.005	0.00011	0.0039	0.039
	09/13/16	0.0024	2.3	<0.002	0.0045	0.0044	8.6	0.012	3.8	0.002	<0.005	0.000091	0.0021	0.017
	06/10/16	0.00093	0.89	<0.002	0.0023	<0.006	4.5	0.0049	3.3	0.0013	<0.005	<0.0002	0.002	0.0074
	02/26/16	0.0018	3.3	<0.002	0.0087	<0.006	9.1	0.013	4.1	0.00075	<0.005	<0.0002	0.0029	0.026
	11/03/15	0.0023	2.3	<0.002	<0.006	<0.006	7.5	0.011	4.5	<0.005	<0.005	<0.0002	0.0029	0.017
	08/18/15	0.0038	8.7	<0.002	0.016	0.02	17	0.034	6.5	<0.005	<0.005	<0.0002	0.0054	0.051
	06/04/15	<0.005	5	<0.002	0.018	0.013	13	0.023	6.4	<0.005	<0.005	<0.0002	0.0044	0.032
	03/17/15	0.004	8.2	<0.002	0.013	0.025	15	0.034	6.3	<0.005	<0.005	<0.0002	0.0053	0.062



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-36	09/05/18	200.7/200.8											
	05/03/18	200.7/200.8											
	02/15/18	200.7/200.8											
	11/30/17	200.7/200.8											
	09/27/17	200.7/200.8											
	06/14/17	200.7/200.8											
	03/01/17	200.7/200.8											
	11/08/16	200.7/200.8											
	08/18/15	200.7/200.8											
	06/04/15	200.7/200.8											
	03/17/15	200.7/200.8											
	10/28/19	--											
	08/23/19	--											
	05/16/19	--											
MKTF-37	03/26/19	200.7/200.8											
	08/23/18	200.7/200.8											
	05/03/18	200.7/200.8											
	03/01/17	200.7/200.8											
	11/03/16	200.7/200.8											
	08/19/15	200.7/200.9											
	06/04/15	200.7/200.8											
	03/17/15	200.7/200.8											
	SPH Detected - No samples were collected.												
	SPH Detected - No samples were collected.												
	SPH Detected - No samples were collected.												
	00018	0.49	<0.002	<0.006	0.0069	0.96	0.006	0.24	<0.001	<0.005	<0.005	0.0094	0.0061
	0.0024	0.84	<0.002	<0.006	0.012	4.8	0.013	0.49	<0.001	<0.005	<0.005	0.019	0.018
	0.0027	1.2	<0.002	<0.006	0.014	3.4	0.0046	0.72	<0.001	<0.005	<0.005	0.013	0.0054
	0.004	1.3	<0.002	<0.006	0.0038	11	0.027	1.5	0.0034	<0.005	<0.005	NA	0.027
	0.0034	0.69	<0.002	<0.006	0.005	2.2	0.0046	0.55	0.0036	<0.005	<0.002	0.025	0.015
	0.0031	0.24	<0.002	<0.006	0.0092	5.7	0.024	1.7	<0.005	<0.005	<0.002	0.02	0.074
	<0.005	0.23	<0.002	0.0063	0.0097	4.8	0.036	2.6	<0.005	<0.005	<0.002	0.024	0.044
	0.0032	0.23	<0.002	<0.006	0.012	5.1	0.03	2.9	0.0036	<0.005	<0.002	0.026	0.14



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTf-38	12/03/19	200.7/200.8												
	08/20/19	200.7/200.8												
	06/27/19	200.7/200.8												
	05/14/19	200.7/200.8												
	03/26/19	200.7/200.8												
	11/20/18	200.7/200.8												
	08/21/18	200.7/200.8												
	05/03/18	200.7/200.8												
	02/12/18	200.7/200.8												
	11/30/17	200.7/200.8												
	09/28/17	200.7/200.8												
	06/21/17	200.7/200.8												
	03/14/17	200.7/200.8												
	11/01/16	200.7/200.8												
	09/13/16	200.7/200.8												
	06/08/16	200.7/200.8												
	02/29/16	200.7/200.8												
	11/09/15	200.7/200.8												
	08/24/15	200.7/200.8												
	06/10/15	200.7/200.8												
	03/16/15	200.7/200.8												
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
		0.0016	0.24	<0.002	0.0032	<0.006	3.6	0.0041	2.9	0.0052	0.003	<0.0002	0.021	0.013
		0.00068	0.069	<0.002	<0.006	<0.006	0.83	0.00083	2.6	0.0028	0.0028	<0.0002	0.02	<0.01
		0.0013	0.29	<0.002	0.0024	<0.006	4.1	0.0047	2.5	0.0026	0.0072	<0.0002	0.021	0.015
		0.00072	0.11	<0.002	<0.006	<0.006	1.6	0.0017	2	0.0017	<0.005	0.000044	0.021	<0.01
		0.00078	0.14	<0.002	<0.006	<0.006	2	0.0019	2	0.0014	0.0024	0.000075	0.02	0.0059
		0.0015	0.063	<0.002	<0.006	<0.006	0.23	0.00028	2.8	0.0019	0.0056	<0.0002	NA	<0.01
		0.0029	0.18	<0.002	0.0018	<0.006	2.8	0.0026	3	<0.001	0.005	0.000061	0.028	0.011
		0.0025	0.082	<0.002	<0.006	<0.006	1.6	0.0015	2.4	<0.001	0.002	0.000045	0.027	0.0058
		0.0046	0.21	<0.002	<0.006	0.0053	2.9	0.0036	1.8	0.0058	0.0022	0.00017	0.031	0.0089
		0.00069	0.1	<0.002	<0.006	<0.006	1.7	0.0019	1.9	0.003	0.0021	<0.0002	0.027	<0.01
		0.0025	0.21	<0.002	0.005	0.0064	3.5	0.0039	2.3	0.0047	<0.005	<0.0002	NA	0.01
		0.0023	0.36	<0.002	0.0056	0.0067	6.6	0.0077	2.7	0.0032	<0.005	0.000041	0.026	0.019
		0.0022	0.31	<0.002	<0.006	0.0031	5.8	0.0072	2.9	0.0041	<0.005	<0.0002	0.017	0.018
		0.0022	0.12	<0.002	<0.006	<0.006	1.7	0.0033	3.3	0.0035	<0.005	<0.0002	0.014	0.0069
		0.0025	0.075	<0.002	<0.006	<0.006	0.61	0.001	3	0.0047	<0.005	0.000065	0.014	0.0057
		0.0022	0.23	<0.002	<0.006	<0.006	3	0.0035	3.8	0.0051	<0.005	<0.0002	0.014	0.025
		0.0017	0.14	<0.002	<0.006	<0.006	2.3	0.0035	2.7	0.0024	<0.005	<0.0002	0.014	0.014
		0.005	0.93	<0.002	0.0096	0.0093	11	0.02	4.2	<0.1	<0.005	<0.0002	0.02	0.035
		0.0028	0.49	<0.002	0.0062	0.0077	7.2	0.0096	3.9	0.0038	<0.005	<0.0002	0.019	0.025
		<0.005	0.43	<0.002	0.006	<0.006	6.4	0.008	3.7	<0.005	<0.005	<0.0002	0.022	0.022
		0.0031	0.34	<0.002	<0.006	<0.006	3.5	0.006	3.1	0.0058	<0.005	<0.0002	0.029	0.014



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-39	11/05/19	200.7/200.8												
	08/20/19	200.7/200.8												
	06/05/19	200.7/200.8												
	03/28/19	--												
	11/20/18	200.7/200.8												
	08/21/18	200.7/200.8												
	05/06/18	200.7/200.8												
	02/08/18	200.7/200.8												
	11/28/17	200.7/200.8												
	09/28/17	200.7/200.8												
	06/08/17	200.7/200.8												
	03/14/17	200.7/200.8												
	11/01/16	200.7/200.8												
	09/13/16	200.7/200.8												
	06/08/16	200.7/200.8												
	03/03/16	200.7/200.8												
	11/09/15	200.7/200.8												
	08/23/15	200.7/200.8												
	06/10/15	200.7/200.8												
	03/16/15	200.7/200.8												

Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
0.0021	52	<0.002	<0.006	0.013	32	0.013	6.7	0.0041	0.01	0.000085	0.0043	0.025
<0.005	48	<0.002	<0.006	0.0052	28	0.0061	9.5	0.0029	0.012	0.000074	0.00091	0.0093
<0.005	11	<0.002	<0.006	0.0057	27	0.0037	10	<0.005	0.0097	<0.0002	0.00084	0.0079
Not accessible to collect samples.												
0.0021	13	<0.002	<0.006	0.0057	12	0.0044	2.6	<0.001	0.0052	<0.0002	NA	0.011
0.0029	11	<0.002	<0.006	0.0048	12	0.0033	2.2	<0.05	0.0043	0.000067	0.00055	0.0065
0.0022	6.6	<0.002	<0.006	0.006	8.1	0.004	1.4	<0.005	<0.005	0.000052	<0.0025	0.012
0.0027	26	<0.002	<0.006	<0.006	24	0.0047	4.2	0.011	0.0066	0.000074	0.00035	0.0034
0.0072	13	<0.002	<0.006	0.0066	13	0.0039	1.9	0.0061	0.0019	NA	<0.0025	0.0064
0.0046	35	<0.002	<0.006	0.0021	34	0.0026	5.5	0.016	<0.005	<0.0002	NA	0.0065
0.0042	6.7	<0.002	0.0043	0.0085	12	0.011	1.4	0.0098	<0.005	0.0001	0.00067	0.02
0.0058	6.4	<0.002	0.004	0.0089	11	0.012	1.4	<0.05	<0.005	0.000067	0.0011	0.022
0.0037	6.1	<0.002	<0.006	<0.006	8.7	0.0046	1.3	0.0084	<0.005	<0.0002	<0.0025	0.0093
0.0047	9.7	<0.002	<0.006	<0.006	12	0.0074	1.8	0.012	<0.005	0.000074	0.00048	0.014
0.0024	8.5	<0.002	<0.006	<0.006	12	0.012	1.8	0.0069	<0.005	0.000061	0.00092	0.028
<0.01	11	<0.002	<0.006	<0.006	13	0.01	1.9	0.0071	<0.005	<0.0002	0.00068	0.011
0.0056	33	<0.002	0.0088	0.037	45	0.049	5.2	<0.05	<0.005	0.00028	0.0038	0.076
<0.005	49	<0.002	<0.006	0.019	57	0.034	6.8	<0.01	<0.005	0.00027	0.0035	0.062
<0.005	58	<0.002	<0.006	<0.06	59	0.031	8	<0.005	<0.005	<0.0002	0.0029	0.042
<0.01	35	<0.01	<0.03	<0.03	50	0.034	8.6	<0.01	<0.025	0.00021	0.012	0.059



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-40	10/22/19	200.7/200.8												
	08/22/19	200.7/200.8												
	05/06/19	200.7/200.8												
	02/20/19	200.7/200.8												
	11/15/18	200.7/200.8												
	08/17/18	200.7/200.8												
	05/06/18	200.7/200.8												
	02/05/18	200.7/200.8												
	11/21/17	200.7/200.8												
	09/25/17	200.7/200.8												
	06/05/17	200.7/200.8												
	03/07/17	200.7/200.8												
	10/31/16	200.7/200.8												
	09/08/16	200.7/200.8												
	06/09/16	200.7/200.8												
	02/23/16	200.7/200.8												
	11/04/15	200.7/200.8												
	08/21/15	200.7/200.8												
	06/10/15	200.7/200.8												
	03/11/15	200.7/200.8												

Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
<0.005	0.11	<0.002	<0.006	<0.006	2.3	0.0023	0.056	<0.005	0.0051	<0.00020	NA	0.0098
0.0025	0.23	<0.002	0.0022	0.0076	6.9	0.0094	0.25	<0.005	0.004	0.00016	0.042	0.024
<0.005	0.12	<0.002	<0.006	<0.006	3.7	0.0037	0.063	<0.005	0.0068	<0.0002	0.046	0.011
0.0024	0.11	<0.002	<0.006	<0.006	2.7	0.0028	0.053	<0.005	0.0064	0.000056	0.042	0.01
0.0037	0.072	<0.002	<0.006	<0.006	1.2	0.0016	0.025	<0.001	0.0067	0.000042	0.046	0.0055
0.0034	0.11	<0.002	0.0022	0.0059	3.5	0.0031	0.1	<0.005	0.0073	0.000079	0.051	0.011
0.0055	0.18	<0.002	0.0026	0.0048	5.1	0.0059	0.23	<0.005	0.0044	0.000054	0.054	0.17
<0.005	0.17	<0.002	<0.006	0.006	4.3	0.0062	0.2	<0.01	0.011	0.000087	0.054	0.016
<0.005	0.16	<0.002	<0.006	0.0074	4	0.0042	0.18	<0.005	0.0047	<0.0002	0.053	0.0085
0.0022	0.14	<0.002	<0.006	<0.006	2.5	0.0028	0.21	0.0071	<0.005	<0.0002	NA	0.0081
0.0038	0.15	<0.002	0.0018	<0.006	3.7	0.0052	0.13	0.0089	<0.005	0.000066	0.063	0.013
0.0047	0.22	<0.002	<0.006	<0.006	5.3	0.0081	0.2	0.012	<0.005	<0.0002	NA	0.018
0.0041	0.21	<0.002	0.0028	<0.006	5.3	0.0084	0.26	0.0082	<0.005	0.000055	0.06	0.019
0.0045	0.31	<0.002	0.0053	0.0057	10	0.029	0.49	0.013	<0.005	0.00012	0.059	0.043
0.0031	0.32	<0.002	<0.006	<0.006	5.5	0.0087	0.31	0.0095	<0.005	0.000096	0.058	0.022
<0.005	0.14	<0.002	<0.006	<0.006	2	0.0026	0.17	0.0031	<0.005	0.000068	0.064	0.0099
<0.005	0.26	<0.002	<0.006	<0.006	5.5	0.0066	0.32	<0.02	<0.005	<0.0002	0.06	0.024
<0.01	0.19	<0.002	<0.006	<0.006	3.4	<0.005	0.24	<0.01	<0.005	<0.0002	0.081	0.016
<0.005	0.24	<0.002	<0.006	<0.006	4	0.0052	0.21	<0.01	<0.005	<0.0002	0.075	0.021
<0.01	0.28	<0.002	<0.006	<0.006	5.6	<0.01	0.34	0.015	<0.005	<0.0002	0.085	0.023



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (JUNE 2019)															
EPA RSL for Tap Water (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD													
MKTF-41	10/23/19	200.7/200.8	0.0025	0.11	<0.002	<0.006	<0.006	2.2	<0.0005	0.067	0.039	<0.005	0.00016	NA	0.0092
	08/22/19	200.7/200.8	0.0037	0.31	<0.002	0.0061	0.007	7.3	0.0081	0.45	0.034	<0.005	0.00015	0.015	0.034
	05/07/19	200.7/200.8	0.0016	0.1	<0.002	<0.006	<0.006	0.73	0.00076	0.028	0.031	0.0015	0.000069	0.015	<0.01
	02/13/19	200.7/200.8	0.0021	0.068	<0.002	<0.006	<0.006	0.16	0.0002	0.014	0.036	<0.005	0.00008	0.011	<0.01
	11/15/18	200.7/200.8	0.0022	0.062	<0.002	<0.006	<0.006	0.055	<0.0005	0.0049	0.035	<0.005	0.000051	0.01	0.0035
	08/29/18	200.7/200.8	0.0024	0.11	<0.002	0.0024	0.0064	3.1	0.002	0.078	0.035	<0.005	0.000084	0.014	0.014
	05/09/18	200.7/200.8	0.0026	0.085	<0.002	<0.006	<0.006	1.1	0.001	0.048	0.039	<0.005	0.000057	0.014	0.0044
	02/07/18	200.7/200.8	0.0056	0.11	<0.002	0.0021	<0.006	2.4	0.0026	0.084	0.038	<0.005	0.000085	0.016	0.012
	11/27/17	200.7/200.8	<0.01	0.088	<0.002	<0.006	<0.006	1.3	0.0016	0.05	0.037	<0.005	<0.0002	0.015	<0.01
	09/25/17	200.7/200.8	0.0053	0.092	<0.002	0.0022	<0.006	0.99	0.001	0.031	0.044	<0.005	0.000074	NA	<0.01
	06/06/17	200.7/200.8	0.0063	0.14	<0.002	0.0038	0.004	4.6	0.0048	0.16	0.044	<0.005	0.000049	0.02	0.015
	03/07/17	200.7/200.8	0.0081	0.12	<0.002	<0.006	<0.006	2.1	0.0032	0.1	0.047	<0.005	<0.0002	NA	0.0084
	10/31/16	200.7/200.8	0.0064	0.094	<0.002	<0.006	<0.006	1.8	0.0029	0.088	0.045	<0.005	<0.0002	0.017	0.011
	09/09/16	200.7/200.8	0.0061	0.12	<0.002	0.003	0.0031	2.5	0.0037	0.12	0.045	<0.005	<0.0002	0.015	0.018
	06/09/16	200.7/200.8	0.0067	0.25	<0.002	0.0043	<0.006	7.3	0.01	0.3	0.046	<0.005	0.000094	0.021	0.029
	02/24/16	200.7/200.8	0.0049	0.12	<0.002	0.0027	<0.006	2.4	0.0035	0.12	0.044	<0.005	<0.0002	0.022	0.013
	11/05/15	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	4.3	0.0056	0.17	0.052	<0.005	<0.0002	0.025	0.019
	08/21/15	200.7/200.8	<0.01	0.27	<0.002	0.0063	<0.006	9	0.012	0.35	0.044	<0.005	<0.0002	0.029	0.034
	06/09/15	200.7/200.8	<0.005	0.16	<0.006	<0.006	<0.006	4.1	0.006	0.15	0.047	<0.005	<0.0002	0.031	0.016
	03/12/15	200.7/200.8	<0.01	0.19	<0.002	0.0075	<0.006	8.4	0.0061	0.22	0.059	<0.005	<0.0002	0.034	0.024



8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-42	10/23/19	200.7/200.8												
	08/22/19	200.7/200.8												
	05/07/19	200.7/200.8												
	02/13/19	200.7/200.8												
	11/15/18	200.7/200.8												
	08/29/18	200.7/200.8												
	05/09/18	200.7/200.8												
	02/07/18	200.7/200.8												
	11/27/17	200.7/200.8												
	09/25/17	200.7/200.8												
	06/06/17	200.7/200.8												
	03/07/17	200.7/200.8												
	10/31/16	200.7/200.8												
	09/09/16	200.7/200.8												
	06/09/16	200.7/200.8												
	02/24/16	200.7/200.8												
	11/05/15	200.7/200.8												
	08/21/15	200.7/200.8												
	06/09/15	200.7/200.8												
	03/11/15	200.7/200.8												
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.002	0.03	10
		0.01	2	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE
		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.00063	0.004	6
		<0.005	0.062	<0.002	<0.006	<0.006	0.19	<0.0025	0.11	<0.005	<0.005	0.0002	NA	<0.01
		0.0015	0.059	<0.002	<0.006	<0.006	0.16	0.00028	0.11	0.00087	<0.005	0.00011	0.01	<0.01
		0.007	0.065	<0.002	<0.006	<0.006	0.15	0.00037	0.12	<0.005	<0.005	0.000046	0.012	<0.01
		0.0015	0.067	<0.002	<0.006	<0.006	0.17	0.00037	0.055	0.0011	<0.005	<0.002	0.016	<0.01
		0.0023	0.035	<0.002	<0.006	<0.006	0.039	<0.0005	0.051	0.0015	<0.005	0.000045	0.0092	<0.01
		0.0019	0.074	<0.002	<0.006	0.0041	0.47	0.00057	0.15	<0.001	<0.005	0.000074	0.01	0.006
		0.002	0.08	<0.002	<0.006	0.0067	0.75	0.0011	0.15	0.0012	<0.005	0.0000067	0.012	0.0085
		<0.005	0.08	<0.002	<0.006	0.0046	0.75	0.002	0.22	<0.01	<0.005	0.000073	0.0095	0.0079
		0.0025	0.071	<0.002	<0.006	<0.006	0.44	<0.0025	0.21	<0.005	<0.005	<0.0002	0.011	<0.01
		0.0032	0.061	<0.002	<0.006	<0.006	0.22	0.00023	0.2	0.0068	<0.012	0.000048	NA	<0.01
		0.0029	0.082	<0.002	<0.006	0.0044	0.92	0.0014	0.25	0.0054	<0.005	0.000057	0.012	0.0029
		0.0089	0.11	<0.002	<0.006	0.005	1.2	0.0023	0.26	0.012	<0.005	<0.0002	NA	0.006
		0.0047	0.11	<0.002	<0.006	0.0052	1.3	0.0028	0.31	0.0095	<0.005	<0.0002	0.014	0.0078
		0.0042	0.11	<0.002	<0.006	0.0054	0.8	0.0018	0.32	0.011	<0.005	<0.0002	0.017	0.0074
		0.0038	0.12	<0.002	<0.006	<0.006	1.6	0.0032	0.43	0.086	<0.005	0.000097	0.021	0.013
		0.0026	0.092	<0.002	<0.006	0.01	0.89	0.0015	0.41	0.0035	<0.005	<0.0002	0.023	0.0061
		<0.01	0.076	<0.002	<0.006	<0.006	0.49	0.00077	0.39	0.011	<0.005	<0.0002	0.027	<0.01
		<0.005	0.097	<0.002	<0.006	<0.006	0.75	0.0012	0.36	0.0045	<0.005	<0.0002	0.032	0.014
		<0.005	0.13	<0.002	<0.006	0.011	1.6	<0.0025	0.6	<0.005	<0.005	<0.0002	0.036	0.016
		0.0035	0.16	<0.002	<0.006	0.0071	2.5	0.0034	0.58	0.0075	<0.005	<0.0002	0.039	0.012







8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)													
40 CFR 141.62 MCL													
NMED Tap Water (JUNE 2019)													
EPA RSL for Tap Water (NOVEMBER 2019)													
WELL ID	DATE SAMPLED	METHOD											
MKTF-44	10/24/19	200.7/200.8											
	08/22/19	200.7/200.8											
	05/08/19	200.7/200.8											
	02/13/19	200.7/200.8											
	11/15/18	200.7/200.8											
	08/30/18	200.7/200.8											
	05/10/18	200.7/200.8											
	02/08/18	200.7/200.8											
	11/28/17	200.7/200.8											
	09/25/17	200.7/200.8											
	06/05/17	200.7/200.8											
	03/08/17	200.7/200.8											
	11/01/16	200.7/200.8											
	09/09/16	200.7/200.8											
	06/09/16	200.7/200.8											
	02/24/16	200.7/200.8											
	11/09/15	200.7/200.8											
	08/17/15	200.7/200.8											
	06/10/15	200.7/200.8											
	03/12/15	200.7/200.8											
MKTF-46	12/03/19	200.7/200.8											
MKTF-47	12/03/19	200.7/200.8											
MKTF-48	12/03/19	200.7/200.8											
MKTF-49	12/03/19	200.7/200.8											
MKTF-50	12/03/19	200.7/200.8											

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table







### 8.17.3 MKTF WELLS

## Dissolved Metals Analytical Result Summary

PARAMETERS												
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL	0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)	0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD										
MKTF-4	10/30/19	200.7/200.8										
	08/21/19	200.7/200.8										
	05/13/19	200.7/200.8										
	03/26/19	200.7/200.8										
	11/20/18	200.7/200.8										
	09/04/18	200.7/200.8										
	05/02/18	200.7/200.8										
	02/14/18	200.7/200.8										
	11/28/17	200.7/200.8										
	09/26/17	200.7/200.8										
	06/08/17	200.7/200.8										
	03/02/17	200.7/200.8										
	11/02/16	200.7/200.8										
	09/11/16	200.7/200.8										
	06/09/16	200.7/200.8										
	02/29/16	200.7/200.8										
	11/03/15	200.7/200.8										
	08/18/15	200.7/200.8										
	06/04/15	200.7/200.8										
	03/16/15	200.7/200.8										
11/13/14	200.7/200.8											
09/15/14	200.7/200.8											
06/04/14	200.7/200.8											



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.00855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-9	11/18/19	0.0029	0.67	<0.002	<0.006	<0.006	2.4	0.000064	4.2	0.0026	0.00028	0.0063	0.02
	08/28/19	0.0008	0.51	<0.002	<0.006	0.002	3.8	0.0001	4.4	0.002	0.00025	0.0013	0.0085
	05/13/19	0.0025	0.69	<0.002	<0.006	0.0037	3.2	<0.0025	4.6	0.0025	<0.005	0.0017	0.059
	03/26/19	0.0025	0.71	<0.002	<0.006	<0.006	3.9	<0.0005	4.6	0.0014	0.00041	0.0025	0.02
	11/28/18	0.0016	0.49	<0.002	<0.006	<0.006	0.82	<0.0005	4.1	0.0029	<0.001	NA	0.022
	09/04/18	0.0019	0.54	<0.002	<0.006	<0.006	0.94	<0.0005	4.4	0.0041	<0.001	0.0038	0.0083
	05/02/18	0.0021	0.46	<0.002	<0.006	<0.006	1.4	<0.0005	3.9	<0.005	<0.001	0.0042	0.0085
	02/14/18	0.0025	0.52	<0.002	<0.006	<0.006	1.3	<0.0005	4	0.0035	0.0048	0.0054	0.008
	11/28/17	0.0023	0.61	<0.002	<0.006	<0.006	1.5	<0.0025	3.9	<0.005	<0.005	0.0046	<0.01
	09/28/17	0.0028	0.54	<0.002	<0.006	<0.006	3	<0.0005	4.5	<0.005	<0.02	NA	0.005
	06/12/17	0.0019	0.6	<0.002	<0.006	<0.006	2.3	0.00018	4.6	<0.005	0.0021	NA	0.015
	03/15/17	0.0035	0.57	<0.002	<0.006	<0.006	2.1	<0.0005	4.1	<0.005	0.0023	0.0033	0.051
	11/02/16	0.0028	0.4	<0.002	<0.006	<0.006	0.92	<0.0005	3.2	<0.005	0.0055	0.0065	0.27
	09/11/16	0.0032	0.52	<0.002	<0.006	<0.006	0.81	0.00023	3.7	<0.005	0.0075	0.005	<0.01
	06/09/16	0.0025	0.43	<0.002	<0.006	<0.006	1.1	<0.0005	3.5	<0.005	0.0053	0.0068	<0.01
	02/29/16	0.0022	0.55	<0.002	<0.006	<0.006	2.8	0.00021	3.9	<0.005	0.0031	0.0047	0.0087
	11/03/15	<0.005	0.5	<0.002	<0.006	<0.006	3.2	<0.0005	4.2	<0.005	<0.01	0.0036	<0.01
	08/18/15	<0.01	0.45	<0.002	<0.006	<0.006	2.4	<0.0025	4	<0.005	<0.01	0.0039	<0.01
	06/04/15	<0.01	0.31	<0.002	<0.006	<0.006	1.9	<0.01	3.2	<0.005	<0.01	<0.01	0.012
	03/16/15	<0.005	0.19	<0.002	<0.006	<0.006	1.4	<0.001	2.3	<0.005	<0.01	0.012	0.039
	11/14/14	<0.01	0.34	<0.002	<0.006	<0.006	2.4	<0.01	2.8	<0.005	<0.01	<0.01	0.017
	09/18/14	<0.01	0.32	<0.002	<0.006	<0.006	2.2	<0.001	2.6	<0.005	<0.01	0.012	<0.01
	06/05/14	<0.005	0.44	<0.002	<0.006	<0.006	3.4	<0.005	3.6	<0.005	0.014	<0.01	<0.01



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
40 CFR 141.62 MCL			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
NMED Tap Water (JUNE 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
EPA RSL for Tap Water (NOVEMBER 2019)															
WELL ID	DATE SAMPLED	METHOD													
MKTF-10	10/30/19	200.7/200.8	0.0092	10	<0.002	<0.006	<0.006	<0.006	14	<0.0005	6.2	0.005	0.00044	NA	0.018
	08/22/19	200.7/200.8	0.0059	8.5	<0.002	<0.006	0.0023	0.0023	7.9	0.000083	5.4	0.0032	<0.001	0.00063	0.0057
	05/13/19	200.7/200.8	0.0051	4.6	<0.002	<0.006	0.00026	0.00026	8.4	<0.0025	3.4	0.0026	<0.005	<0.0025	0.13
	03/26/19	200.7/200.8	0.0037	4.2	<0.002	<0.006	<0.006	<0.006	7	<0.0005	3.1	0.0017	0.00019	0.00017	0.046
	11/20/18	200.7/200.8	0.008	4	<0.002	<0.006	<0.006	<0.006	6.1	<0.0005	2.9	0.0029	<0.001	NA	0.027
	09/04/18	200.7/200.8	0.009	4.2	<0.002	<0.006	<0.006	<0.006	6.8	<0.0005	2.9	0.0027	<0.001	0.00022	0.0092
	05/02/18	200.7/200.8	0.0075	4.2	<0.002	<0.006	<0.006	<0.006	9.2	<0.0005	3.3	<0.005	<0.001	0.00014	0.018
	02/14/18	200.7/200.8	0.0083	4.8	<0.002	<0.006	<0.006	<0.006	9.7	<0.0005	3.7	0.0026	0.0072	0.0003	0.0078
	11/28/17	200.7/200.8	0.0063	3.9	<0.002	<0.006	<0.006	<0.006	8.2	<0.0025	3	<0.005	<0.005	<0.0025	<0.01
	09/28/17	200.7/200.8	0.0087	3.7	<0.002	<0.006	<0.006	<0.006	7.5	<0.0005	2.8	<0.005	0.0074	NA	0.01
	06/08/17	200.7/200.8	0.0082	4	<0.002	<0.006	<0.006	<0.006	5.6	<0.0005	3.1	<0.005	0.0045	0.00051	0.013
	03/02/17	200.7/200.8	0.011	4.8	<0.002	<0.006	<0.006	<0.006	13	0.00032	3.4	0.0009	0.0039	NA	0.02
	11/02/16	200.7/200.8	0.008	5.8	<0.002	<0.006	<0.006	<0.006	9.4	<0.005	5.2	<0.005	0.0046	0.00065	<0.01
	09/11/16	200.7/200.8	0.0082	11	<0.002	<0.006	<0.006	<0.006	26	0.00086	12	<0.005	0.0066	0.00091	0.0029
	06/09/16	200.7/200.8	0.0077	13	<0.002	<0.006	<0.006	<0.006	41	0.00022	16	<0.005	0.0041	0.00049	0.041
	02/29/16	200.7/200.8	0.0083	14	<0.002	<0.006	<0.006	<0.006	54	<0.0025	20	<0.005	0.0042	0.0015	0.017
	11/03/15	200.7/200.8	0.0056	13	<0.002	<0.006	<0.006	<0.006	50	<0.005	18	<0.005	0.0067	<0.0005	<0.01
	08/18/15	200.7/200.8	0.013	15	<0.002	0.013	0.013	<0.006	64	<0.0025	22	<0.005	<0.01	<0.0025	<0.01
	06/04/15	200.7/200.8	<0.01	12	<0.002	<0.006	<0.006	<0.006	53	<0.01	18	<0.005	<0.01	<0.01	0.034
	03/16/15	200.7/200.8	<0.005	12	<0.002	<0.006	<0.006	<0.006	49	<0.001	17	<0.005	0.0068	<0.001	<0.01
	11/14/14	200.7/200.8	<0.01	17	<0.002	<0.006	<0.006	<0.006	67	<0.01	24	<0.005	<0.01	<0.01	0.018
	09/18/14	200.7/200.8	<0.005	11	<0.002	<0.006	<0.006	<0.006	33	<0.001	14	<0.005	<0.005	<0.001	<0.01
	06/06/14	200.7/200.8	<0.005	8.1	<0.002	<0.006	<0.006	<0.006	18	<0.005	9.2	<0.005	0.011	<0.01	<0.01







### 8.17.3 MKTF WELLS

## Dissolved Metals Analytical Result Summary

STANDARDS					PARAMETERS												
					Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)					0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL					0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
NMED Tap Water (JUNE 2019)					0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOVEMBER 2019)					0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD															
MKTf-15	10/30/19	--	SPH Detected - No samples were collected.														
	08/21/19	--	SPH Detected - No samples were collected.														
	05/13/19	200.7/200.8	0.0059	17	<0.002	<0.006	0.0031	26	0.00041	8.2	0.009	<0.005	<0.0025	0.046			
	03/25/19	--	SPH Detected - No samples were collected.														
	08/28/18	200.7/200.8	0.0055	26	<0.002	<0.006	<0.006	36	<0.0025	14	0.02	<0.005	<0.0025	0.0096			
	05/02/18	200.7/200.8	0.01	31	<0.002	<0.006	<0.006	46	<0.005	17	0.008	<0.01	<0.005	0.0034			
	11/28/17	200.7/200.8	0.0072	44	<0.002	<0.006	<0.006	75	<0.0025	23	<0.1	<0.01	<0.0025	<0.01			
	06/08/17	200.7/200.8	0.0057	31	<0.002	<0.006	<0.006	54	<0.0025	13	<0.005	0.0062	0.00057	0.011			
	03/02/17	200.7/200.8	0.0033	28	<0.002	<0.006	<0.006	45	<0.0025	9.5	0.0066	0.0086	NA	0.019			
	11/02/16	200.7/200.8	0.0027	20	<0.002	<0.006	<0.006	26	<0.0025	6.5	<0.005	0.0069	<0.0025	0.014			
	09/11/16	200.7/200.8	0.0027	23	<0.002	<0.006	<0.006	32	0.00048	7.6	<0.005	0.0091	0.00023	0.04			
	09/17/14	200.7/200.8	<0.01	27	<0.002	<0.006	<0.006	13	<0.01	9	<0.005	<0.01	<0.01	<0.01			
	06/05/14	200.7/200.8	<0.005	25	<0.002	<0.006	<0.006	11	<0.005	7.5	<0.005	<0.01	<0.01	0.011			
MKTf-16	10/30/19	200.7/200.8	0.012	4.3	<0.002	<0.006	<0.006	<0.006	15	0.00015	5.5	0.0033	<0.01	NA	0.026		
	08/30/19	200.7/200.8	0.018	6.9	<0.002	<0.006	<0.006	<0.006	21	<0.0025	7.1	<0.005	<0.005	<0.0025	<0.01		
	05/14/19	200.7/200.8	0.0093	2.5	<0.002	<0.006	<0.006	<0.006	5.8	<0.0025	2.6	0.0015	<0.005	<0.0025	0.018		
	02/20/19	200.7/200.8	0.011	2.1	<0.002	<0.006	<0.006	0.0015	2	0.00023	1.7	0.0012	0.00038	0.0016	0.024		
	11/29/18	200.7/200.8	0.015	1.4	<0.002	<0.006	<0.006	<0.006	2.7	<0.0005	1.5	<0.005	<0.001	NA	0.031		
	08/31/18	200.7/200.8	0.018	2.1	<0.002	<0.006	<0.006	<0.006	1.8	<0.0005	1.8	<0.005	<0.001	0.0062	0.0074		
	05/11/18	200.7/200.8	0.01	2.1	<0.002	<0.006	<0.006	<0.006	3.4	<0.0025	1.9	<0.005	<0.01	0.0067	0.0088		
	02/15/18	200.7/200.8	0.0027	0.67	<0.002	<0.006	<0.006	0.019	0.095	<0.0025	0.37	0.002	<0.005	0.002	0.072		
	11/29/17	200.7/200.8	0.015	2.7	<0.002	<0.006	<0.006	<0.006	3.5	<0.0025	2.1	<0.005	<0.02	0.0046	<0.01		
	09/26/17	200.7/200.8	0.013	2.9	<0.002	<0.006	<0.006	<0.006	8.8	0.00019	2.8	<0.005	<0.05	NA	0.018		
	06/08/17	200.7/200.8	0.018	2.3	<0.002	<0.006	<0.006	<0.006	1.4	<0.0025	1.7	<0.005	0.018	0.0087	0.014		
	03/14/17	200.7/200.8	0.01	1.9	<0.002	<0.006	<0.006	<0.006	4.7	0.00078	1.8	<0.005	<0.02	0.0012	0.027		
	11/03/16	200.7/200.8	0.015	0.69	<0.002	<0.006	<0.006	<0.006	2.2	0.00042	0.87	<0.005	0.013	0.0053	0.0041		
09/12/16	200.7/200.8	0.014	0.67	<0.002	<0.006	<0.006	<0.006	2.4	0.00027	0.94	<0.005	0.013	0.004	<0.01			
02/29/16	200.7/200.8	0.01	1.3	<0.002	<0.006	<0.006	<0.006	5.8	0.00079	1.7	<0.005	0.0099	0.00025	0.018			
11/03/15	200.7/200.8	0.016	3.1	<0.002	<0.006	<0.006	<0.006	13	<0.0005	3.9	<0.005	0.019	<0.0005	<0.01			
08/23/15	200.7/200.8	0.01	2.7	<0.002	<0.006	<0.006	<0.006	11	<0.0025	4.1	<0.005	0.0097	<0.0025	<0.01			
06/08/15	200.7/200.8	0.0087	2.3	<0.002	<0.006	<0.006	<0.006	11	<0.005	3.6	<0.005	0.0081	<0.005	0.017			
03/16/15	200.7/200.8	<0.01	0.94	<0.002	<0.006	<0.006	<0.006	5.6	<0.001	1.2	<0.005	<0.02	<0.001	0.024			
11/18/14	200.7/200.8	0.011	0.88	<0.002	<0.006	<0.006	<0.006	7.2	<0.001	1.1	<0.005	<0.005	<0.001	0.019			
09/17/14	200.7/200.8	0.011	0.81	<0.002	<0.006	<0.006	<0.006	7.3	<0.001	1.1	<0.005	<0.005	<0.01	0.017			
06/05/14	200.7/200.8	0.013	0.81	<0.002	<0.006	<0.006	<0.006	7.9	<0.005	1.3	<0.005	0.017	<0.01	0.022			



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS														
PARAMETERS														
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
	WQCC 20 NMAC 6.2.3103 (DEC 2018)	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
	40 CFR 141.62 MCL	0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
	NMED Tap Water (JUNE 2019)	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
	EPA RSL for Tap Water (NOVEMBER 2019)	0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD												
MKTF-17	10/29/19	200.7/200.8	1.6	<0.002	<0.006	<0.006	0.45	<0.0005	3.5	0.0029	0.00018	NA	0.034	
	08/20/19	200.7/200.8	0.98	<0.002	<0.006	<0.006	0.37	<0.0005	2.8	0.0019	<0.001	0.0033	0.0026	
	05/09/19	200.7/200.8	0.96	<0.002	<0.006	<0.006	0.27	<0.0025	3	0.0023	<0.005	0.0037	0.01	
	03/26/19	200.7/200.8	0.5	<0.002	<0.006	<0.006	0.23	<0.0005	2.7	0.0016	0.00027	0.049	0.034	
	11/28/18	200.7/200.8	0.43	<0.002	<0.006	<0.006	0.27	<0.0005	2.5	0.002	<0.001	NA	0.02	
	08/24/18	200.7/200.8	0.34	<0.002	<0.006	<0.006	0.39	<0.0005	2.4	0.0024	<0.001	0.0061	0.0062	
	05/04/18	200.7/200.8	0.51	<0.002	<0.006	<0.006	0.17	<0.0005	2.7	0.0022	<0.001	0.0045	0.0058	
	02/16/18	200.7/200.8	0.44	<0.002	<0.006	<0.006	0.13	<0.0005	2.9	0.0024	<0.01	0.0055	0.0048	
	12/01/17	200.7/200.8	0.42	<0.002	<0.006	<0.006	0.14	<0.0005	2.2	<0.005	<0.005	0.0062	0.0032	
	09/26/17	200.7/200.8	0.73	<0.002	<0.006	<0.006	3.2	<0.0005	2.8	<0.005	<0.01	NA	0.021	
	06/14/17	200.7/200.8	0.74	<0.002	<0.006	<0.006	2.9	<0.0005	2.7	<0.005	<0.005	NA	0.0095	
	03/15/17	200.7/200.8	0.76	<0.002	<0.006	<0.006	1.3	<0.0005	2.6	<0.005	<0.005	0.0054	0.023	
	11/08/16	200.7/200.8	0.52	<0.002	<0.006	<0.006	0.21	<0.0005	2.7	<0.005	0.003	0.0069	<0.01	
	09/13/16	200.7/200.8	0.65	<0.002	<0.006	<0.006	0.23	<0.005	3	<0.005	0.0046	0.008	<0.01	
	02/26/16	200.7/200.8	0.095	<0.002	<0.006	<0.006	0.093	0.00012	2.8	<0.005	0.0015	0.018	0.02	
	11/03/15	200.7/200.8	0.19	<0.002	<0.006	<0.006	0.65	<0.0005	3.5	<0.005	0.0045	0.013	<0.01	
	08/18/15	200.7/200.8	0.097	<0.02	<0.006	<0.006	0.49	<0.0025	2.8	<0.005	<0.01	0.017	<0.01	
	06/08/15	200.7/200.8	0.11	<0.002	<0.006	<0.006	0.14	<0.002	3.1	<0.005	<0.005	0.021	<0.01	
	03/12/15	200.7/200.8	0.13	<0.002	<0.006	<0.006	0.57	<0.001	3	<0.005	0.0058	0.021	<0.01	
	11/18/14	200.7/200.8	0.14	<0.002	<0.006	<0.006	0.08	<0.001	2.8	<0.005	<0.01	0.022	0.027	
	09/18/14	200.7/200.8	0.16	<0.002	<0.006	<0.006	0.27	<0.001	3.1	<0.005	<0.005	0.022	0.018	
	06/16/14	200.7/200.8	0.24	<0.002	<0.006	<0.006	0.94	<0.005	3.3	<0.005	<0.005	0.022	0.14	



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
MKTf-18	10/29/19	200.7/200.8	0.0012	2	<0.002	<0.006	<0.006	0.65	<0.0005	2.1	0.0024	<0.001	NA	0.019
	08/19/19	--						SPH Detected - No samples were collected.						
	05/16/19	200.7/200.8	0.0014	2	<0.002	<0.006	0.0038	2	0.00007	2.1	0.0017	0.0003	0.00065	0.015
	03/26/19	200.7/200.8	0.00081	2.2	<0.002	<0.006	0.0063	2.8	<0.005	2	<0.005	<0.001	0.0005	0.022
	11/28/18	200.7/200.8	0.0018	1.4	<0.002	<0.006	0.0063	0.11	0.00042	2	0.002	<0.001	NA	0.027
	08/24/18	200.7/200.8	0.0016	2.1	<0.002	<0.006	<0.006	0.68	<0.0005	2.2	0.0027	<0.001	0.0006	0.0081
	05/04/18	200.7/200.8	0.0014	2.1	<0.002	<0.006	<0.006	0.41	<0.0005	2.2	0.0019	<0.001	0.00064	0.0058
	02/16/18	200.7/200.8	<0.005	2.2	<0.002	<0.006	<0.006	0.42	<0.0005	2.2	<0.005	0.0046	0.0008	0.0083
	06/14/17	200.7/200.8	0.0029	1.9	<0.002	<0.006	0.0063	2.6	<0.0005	1.9	<0.005	0.0025	NA	0.011
	03/01/17	200.7/200.8	0.0023	2	<0.002	<0.006	<0.006	1.4	<0.0005	1.9	<0.005	0.0043	NA	0.024
	11/08/16	200.7/200.8	0.0025	1.7	<0.002	<0.006	<0.006	0.81	<0.0005	1.9	<0.005	0.0053	0.001	<0.01
	09/13/16	200.7/200.8	0.0026	1.8	<0.002	<0.006	<0.006	0.89	<0.0005	2	<0.005	0.0072	0.0012	<0.01
	06/10/16	200.7/200.8	0.0023	1.9	<0.002	<0.006	<0.006	1.5	<0.0005	1.9	<0.005	0.0054	0.0011	<0.01
	02/26/16	200.7/200.8	0.002	2.1	<0.002	<0.006	<0.006	2.1	0.00039	1.9	<0.005	0.0018	0.0012	0.011
	11/03/15	200.7/200.8	0.0031	2.5	<0.002	<0.006	<0.006	4.8	0.0053	1.9	<0.005	<0.01	0.0012	<0.01
	08/18/15	200.7/200.8	<0.01	2	<0.002	<0.006	<0.006	1.2	<0.0025	1.7	<0.005	<0.01	<0.0025	<0.01
	06/08/15	200.7/200.8	<0.005	2.5	<0.002	<0.006	<0.006	3.9	<0.002	1.8	<0.005	<0.005	<0.002	<0.01
	03/17/15	200.7/200.8	<0.01	2.5	<0.002	<0.006	<0.006	3.8	<0.001	1.8	<0.005	<0.01	<0.001	<0.01
	11/18/14	200.7/200.8	0.002	2.4	<0.002	<0.006	<0.006	3.4	<0.001	1.7	<0.005	<0.01	<0.001	0.025
	09/18/14	200.7/200.8	<0.005	2.3	<0.002	<0.006	<0.006	0.3	<0.001	1.7	<0.005	<0.005	0.0012	0.012
	06/06/14	200.7/200.8	<0.005	2.4	<0.002	<0.006	<0.006	4.5	<0.005	2	<0.005	0.0086	<0.01	<0.01







8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD												
MKTF-20	11/05/19	200.7/200.8	0.01	2.1	<0.002	<0.006	0.0058	2.2	0.00026	2.1	0.0022	0.00067	0.00022	0.083
	08/21/19	200.7/200.8	0.02	22	<0.002	<0.006	0.014	20	0.003	8.1	0.0068	0.0013	0.0027	0.021
	05/14/19	200.7/200.8	0.027	5	<0.002	<0.006	0.0035	22	0.002	9	0.0079	0.0015	0.0027	0.022
	02/20/19	200.7/200.8	0.036	3.6	<0.01	<0.03	0.0094	47	0.0035	5.5	<0.025	<0.005	0.0012	0.16
	11/29/18	200.7/200.8	0.019	4.9	<0.002	<0.006	0.0059	2.5	0.00078	2.5	0.0026	<0.001	0.0023	0.061
	08/31/18	200.7/200.8	0.026	4	<0.002	<0.006	0.011	5.3	0.0039	2.8	0.0036	<0.005	0.0012	0.014
	05/11/18	200.7/200.8	0.023	8.8	<0.002	<0.006	0.014	17	0.0043	5.4	0.0038	0.01	0.0037	0.022
	02/15/18	200.7/200.8	0.0096	33	<0.002	<0.006	<0.006	53	0.0015	17	0.011	0.01	0.0017	0.0093
	11/29/17	200.7/200.8	0.017	8.6	<0.002	<0.006	0.014	13	0.0033	3	<0.005	<0.02	0.0023	0.0086
	09/26/17	200.7/200.8	0.02	8.5	<0.002	<0.006	<0.006	16	0.00097	3.8	<0.005	<0.1	NA	0.027
	06/12/17	200.7/200.8	0.021	7.6	<0.002	<0.006	0.0037	17	0.0042	4.1	<0.005	<0.05	NA	0.019
	03/14/17	200.7/200.8	0.019	12	<0.002	<0.006	<0.006	23	0.0023	7.2	<0.005	<0.05	0.00053	0.041
	11/03/16	200.7/200.8	0.029	8.6	<0.002	<0.006	0.0073	20	0.009	8	<0.005	0.013	0.0052	0.014
	09/12/16	200.7/200.8	0.027	4.7	<0.002	<0.006	0.0046	14	0.004	3.8	<0.005	0.0079	0.0033	0.012
	06/09/16	200.7/200.8	0.034	3.3	<0.002	<0.006	0.022	12	0.012	3.9	<0.005	0.0078	0.018	0.016
	06/08/15	200.7/200.8	0.012	1.5	<0.002	<0.006	<0.006	3.6	<0.005	2	<0.005	<0.005	<0.005	0.045
	03/16/15	200.7/200.8	0.022	2	<0.002	<0.006	<0.006	8.6	0.0013	3.1	<0.005	<0.01	0.0088	<0.01



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS														
PARAMETERS														
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-21	11/05/19	200.7/200.8	<0.002	<0.006	0.0061	8.3	0.0011	6.2	0.0096	0.0011	0.0031	0.096		
	08/22/19	200.7/200.8	<0.002	<0.006	<0.006	16	0.00029	3.4	<0.005	0.00082	0.00047	0.015		
	05/14/19	200.7/200.8	<0.002	<0.006	0.0032	33	0.0011	5.6	0.0017	0.0011	0.0021	0.065		
	02/20/19	200.7/200.8	<0.002	<0.006	0.00369	57	0.0014	14	0.0091	0.0017	0.0029	0.046		
	11/29/18	200.7/200.8	<0.002	<0.006	<0.006	9.3	0.00021	3.6	0.0032	<0.001	0.0022	0.053		
	08/31/18	200.7/200.8	<0.002	<0.006	<0.006	16	<0.0025	3.6	0.0023	<0.005	0.0011	0.014		
	05/11/18	200.7/200.8	<0.002	<0.006	<0.006	31	0.00035	5.8	<0.005	0.0071	0.0026	0.018		
	02/15/18	200.7/200.8	<0.002	<0.006	<0.006	9.2	0.0018	5.2	0.0025	0.0087	0.0055	0.026		
	11/28/17	200.7/200.8	<0.002	<0.006	<0.006	15	0.00034	4.4	<0.005	0.0084	0.0022	0.011		
	09/26/17	200.7/200.8	<0.002	<0.006	<0.006	5.6	<0.0005	3.9	<0.005	<0.02	NA	0.028		
	06/21/17	200.7/200.8	<0.002	<0.006	<0.006	39	0.00086	6.7	<0.005	<0.05	0.00052	0.02		
	03/14/17	200.7/200.8	<0.002	<0.006	<0.006	26	0.0012	5.7	<0.005	0.0039	0.00052	0.045		
	11/03/16	200.7/200.8	<0.002	<0.006	<0.006	30	0.00098	5	<0.005	0.012	0.002	0.017		
	09/12/16	200.7/200.8	<0.002	<0.006	<0.006	22	0.0018	3.7	<0.005	0.0094	0.00071	0.023		
	--		Not enough water to collect samples.											
	03/16/15	200.7/200.8	<0.002	<0.006	<0.006	<0.006	18	0.012	3.1	<0.005	<0.01	0.0012	0.074	
MKTF-22	10/24/19	200.7/200.8	<0.002	<0.006	0.0034	6.8	<0.0005	2.9	0.0030	<0.005	NA	0.021		
	08/20/19	200.7/200.8	<0.002	<0.006	<0.006	6.8	<0.0005	2.6	0.0016	<0.001	0.0021	0.004		
	05/09/19	200.7/200.8	<0.002	<0.006	<0.006	7.3	<0.0025	2.6	0.0014	0.001	0.0024	0.0081		
	03/26/19	200.7/200.8	<0.002	<0.006	<0.006	2.3	0.000067	2.5	0.0019	0.0002	0.0022	0.021		
	11/28/18	200.7/200.8	<0.002	<0.006	<0.006	1.4	<0.0005	2.5	0.0024	<0.001	NA	0.01		
	08/30/18	200.7/200.8	<0.002	<0.006	<0.006	3	<0.0005	2.4	0.0025	<0.001	0.002	0.006		
	05/10/18	200.7/200.8	<0.002	<0.006	<0.006	1.4	<0.0025	2.4	0.002	<0.005	0.0019	0.0057		
	02/08/18	200.7/200.8	<0.002	<0.006	<0.006	1	<0.0005	2.2	0.0035	<0.0005	0.0025	0.0055		
	11/28/17	200.7/200.8	<0.002	<0.006	<0.006	1.6	<0.0005	2.3	<0.005	<0.005	0.0023	<0.01		
	10/03/17	200.7/200.8	<0.002	<0.006	<0.006	7.1	0.00031	2.6	<0.005	0.0029	NA	0.028		
	06/08/17	200.7/200.8	<0.002	<0.006	<0.006	0.98	<0.0005	2.1	<0.005	0.0035	0.003	0.011		
	03/08/17	200.7/200.8	<0.002	<0.006	<0.006	4.2	<0.0005	2.3	<0.005	0.0042	NA	0.025		
	11/01/16	200.7/200.8	<0.002	<0.006	<0.006	3	<0.0005	2.5	<0.005	0.0038	0.0024	0.0099		
	09/10/16	200.7/200.8	<0.002	<0.006	<0.006	2.7	0.0014	2.3	<0.005	0.0053	0.0028	<0.01		
	06/10/16	200.7/200.8	<0.002	<0.006	<0.006	2.9	<0.0005	2.2	<0.005	0.0046	0.0028	<0.01		
	02/25/16	200.7/200.8	<0.002	<0.006	<0.006	6.3	0.00053	2.3	<0.005	0.0015	0.0019	0.011		
	11/09/15	200.7/200.8	<0.002	<0.006	<0.006	5.9	0.0083	2.4	<0.005	<0.005	0.0048	<0.01		
	08/20/15	200.7/200.8	<0.002	<0.006	<0.006	8.5	<0.0025	1.9	<0.005	<0.005	0.013	<0.01		
	06/09/15	200.7/200.8	<0.002	<0.006	<0.006	6.8	<0.002	2.3	<0.005	<0.005	0.0038	0.029		
	03/12/15	200.7/200.8	<0.002	<0.006	<0.006	7.5	0.0016	2.3	<0.005	0.0067	0.0032	<0.01		
	11/17/14	200.7/200.8	<0.002	<0.006	<0.006	6.8	0.001	2.2	<0.005	<0.005	0.0053	0.024		



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD												
MKTF-23	10/29/19	200.7/200.8	0.0084	1.7	<0.002	<0.006	<0.006	0.16	0.00072	2	0.0012	0.00032	NA	0.023
	08/20/19	--	SPH Detected - No samples were collected.											
	05/09/19	--	SPH Detected - No samples were collected.											
	03/26/19	200.7/200.8	0.0055	1.4	<0.002	<0.006	<0.006	0.21	0.00063	2	0.0015	0.00036	0.0082	0.041
	06/10/16	200.7/200.8	0.01	0.66	<0.002	<0.006	<0.006	2.6	0.00065	1.8	<0.005	0.009	0.0022	<0.01
	02/25/16	200.7/200.8	0.01	0.58	<0.002	<0.006	<0.006	3.8	0.00038	1.8	<0.005	0.0042	0.0018	0.0083
	11/09/15	200.7/200.8	0.015	0.71	<0.002	<0.006	<0.006	0.99	<0.0025	1.4	<0.005	<0.05	0.024	<0.01
	08/21/15	200.7/200.8	0.011	0.7	<0.002	<0.006	<0.006	0.34	<0.0005	1.3	<0.005	<0.01	0.014	<0.01
	06/09/15	200.7/200.8	0.01	0.75	<0.002	<0.006	<0.006	2.4	<0.002	1.5	<0.005	<0.005	0.0072	<0.01
	03/12/15	200.7/200.8	0.013	0.61	<0.002	<0.006	<0.006	4.4	<0.001	1.9	<0.005	<0.02	0.0045	<0.01
	11/17/14	200.7/200.8	0.01	0.57	<0.002	<0.006	<0.006	3.1	<0.001	1.7	<0.005	<0.01	0.013	0.018
	MKTF-24	10/23/19	200.7/200.8	0.0031	0.38	<0.002	<0.006	<0.006	0.59	0.00098	2.4	0.003	<0.005	NA
08/23/19		200.7/200.8	0.0028	0.34	<0.002	<0.006	0.0018	1.6	0.0009	2.2	0.0024	0.00051	0.011	0.011
05/06/19		200.7/200.8	0.0033	0.32	<0.002	<0.006	0.0035	5.7	0.00036	2.3	0.004	<0.005	0.011	0.03
02/25/19		--	Well not sampled.											
11/15/18		200.7/200.8	0.0013	0.25	<0.002	<0.006	0.0035	0.1	0.0012	1.8	0.0027	<0.001	0.013	0.027
08/20/18		200.7/200.8	0.0021	0.25	<0.002	<0.006	<0.006	0.33	0.0014	1.8	0.0028	<0.001	0.015	0.018
05/01/18		200.7/200.8	0.0025	0.26	<0.002	<0.006	<0.006	0.26	0.0011	1.9	<0.005	<0.005	0.013	0.0047
02/06/18		200.7/200.8	0.0028	0.27	<0.002	<0.006	<0.006	0.24	0.0014	2.2	0.0029	<0.005	0.014	0.0096
11/20/17		200.7/200.8	0.0025	0.26	<0.002	<0.006	<0.006	0.24	0.0013	2.1	0.002	<0.005	0.013	0.0035
10/03/17		200.7/200.8	0.0047	0.23	<0.002	<0.006	<0.006	0.85	0.0006	1.6	<0.005	0.0094	NA	0.058
06/05/17		200.7/200.8	0.0029	0.25	<0.002	<0.006	<0.006	0.21	0.0012	2.1	<0.005	0.0052	0.017	0.015
03/29/17		200.7/200.8	0.0031	0.29	<0.002	<0.006	<0.006	0.55	0.0012	1.6	<0.005	0.0057	0.033	0.018
10/28/16		200.7/200.8	0.0033	0.23	<0.002	<0.006	<0.006	0.069	0.0012	2	<0.005	0.0064	0.017	<0.01
09/07/16		200.7/200.8	0.0035	0.24	<0.002	<0.006	<0.006	0.19	0.0015	1.9	<0.005	0.0063	0.02	0.0071
06/08/16		200.7/200.8	0.0045	0.27	<0.002	<0.006	<0.006	0.65	0.0019	1.9	<0.005	0.0084	0.027	<0.01
02/22/16		200.7/200.8	0.0026	0.25	<0.002	<0.006	<0.006	0.21	0.0012	1.9	<0.005	0.0031	0.023	0.012
11/04/15		200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	0.41	0.0016	1.3	<0.005	0.0091	0.032	<0.01
08/20/15	200.7/200.8	<0.005	0.31	<0.002	<0.006	<0.006	4.1	0.0027	1.5	<0.005	<0.005	0.035	<0.01	
06/10/15	200.7/200.8	<0.005	0.29	<0.002	<0.006	<0.006	0.69	<0.005	1.4	<0.005	0.0058	0.037	0.021	
03/11/15	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	0.34	0.0015	1.2	<0.005	0.011	0.043	<0.01	
11/14/14	200.7/200.8	<0.005	0.29	<0.002	<0.006	<0.006	4.4	<0.005	1.6	<0.005	<0.005	0.038	0.018	



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD												
MKTf-25	10/23/19	200.7/200.8	0.0037	0.53	<0.002	<0.006	0.0034	0.28	<0.0025	5.4	0.005	<0.005	NA	0.018
	08/27/19	200.7/200.8	0.0014	0.39	<0.002	<0.006	0.0055	0.25	0.00052	3.6	0.0027	<0.005	0.037	0.01
	05/06/19	200.7/200.8	0.0019	0.43	<0.002	<0.006	0.0021	0.21	0.00055	1.8	0.0044	<0.005	0.033	0.035
	02/14/19	--						Well not sampled.						
	11/15/18	200.7/200.8	0.0043	0.31	<0.002	<0.006	<0.006	0.048	<0.0005	2.9	0.0023	<0.001	0.047	0.031
	08/17/18	200.7/200.8	0.0052	0.33	<0.002	<0.006	0.0051	0.97	0.00025	2.4	0.0033	<0.001	0.027	0.0075
	05/06/18	200.7/200.8	0.0041	0.26	<0.002	<0.006	0.0073	0.75	<0.0005	2.4	0.0021	<0.001	0.023	0.0096
	02/05/18	200.7/200.8	0.0041	0.28	<0.002	<0.006	<0.006	0.7	0.00024	2.6	0.0023	<0.005	0.023	0.0074
	11/21/17	200.7/200.8	0.0042	0.28	<0.002	<0.006	<0.006	0.8	0.00022	2.4	<0.005	<0.005	0.024	<0.01
	09/25/17	200.7/200.8	0.0044	0.24	<0.002	<0.006	<0.006	0.57	0.00039	2.4	<0.005	0.0047	NA	0.018
	06/05/17	200.7/200.8	0.0047	0.18	<0.002	<0.006	<0.006	0.57	0.00027	2.3	<0.005	0.0044	0.027	0.014
	03/29/17	200.7/200.8	0.0054	0.27	<0.002	<0.006	<0.006	0.56	0.00082	2.6	<0.005	0.0076	0.029	0.02
	11/01/16	200.7/200.8	0.0047	0.28	<0.002	<0.006	<0.006	0.35	0.00031	2.5	<0.005	0.0067	0.037	0.035
	09/09/16	200.7/200.8	0.0058	0.31	<0.002	<0.006	<0.006	0.11	0.0066	2.7	<0.005	0.0074	0.032	0.0089
	06/09/16	200.7/200.8	0.0049	0.32	<0.002	<0.006	<0.006	0.47	0.001	2.9	<0.005	0.0096	0.03	<0.01
	02/23/16	200.7/200.8	0.0036	0.28	<0.002	<0.006	<0.006	0.46	0.00027	2.9	<0.005	0.0033	0.03	0.013
	11/05/15	200.7/200.8	<0.005	0.34	<0.002	<0.006	<0.006	0.4	0.0017	3.2	<0.005	0.0078	0.03	<0.01
	08/21/15	200.7/200.8	0.0043	0.35	<0.002	<0.006	<0.006	0.57	0.00051	3.3	<0.005	<0.01	0.034	<0.01
	06/10/15	200.7/200.8	<0.005	0.32	<0.002	<0.006	<0.006	0.64	<0.005	3.2	<0.005	0.005	0.033	0.016
	03/11/15	200.7/200.8	<0.01	0.26	<0.002	<0.006	<0.006	0.2	<0.001	3.2	<0.005	<0.02	0.038	0.017
	11/14/14	200.7/200.8	<0.005	0.28	<0.002	<0.006	<0.006	0.21	<0.005	3.1	<0.005	<0.005	0.03	0.1



### 8.17.3 MKTF WELLS

## Dissolved Metals Analytical Result Summary

STANDARDS														PARAMETERS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)				Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)										
40 CFR 141.62 MCL				0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10										
				0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE										
NMED Tap Water (JUNE 2019)				0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96										
EPA RSL for Tap Water (NOVEMBER 2019)				0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6										
WELL ID	DATE SAMPLED	METHOD																							
MKTf-26	06/09/16	200.7/200.8	0.0094	0.074	<0.002	<0.006	<0.006	<0.006	0.48	0.00096	0.7	<0.005	0.033	0.085	0.004										
	02/22/16	200.7/200.8	0.0024	0.12	<0.002	<0.006	<0.006	<0.006	0.38	0.0013	0.91	<0.005	0.0031	0.042	0.048										
	11/04/15	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.006	0.35	0.0011	1	<0.005	0.0075	0.062	<0.01										
	08/20/15	200.7/200.8	<0.005	0.1	<0.002	<0.006	<0.006	<0.006	0.57	<0.0025	1.1	<0.005	<0.005	0.092	<0.01										
	06/10/15	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.006	0.86	<0.005	1.2	<0.005	<0.005	0.063	0.036										
	03/11/15	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	<0.006	0.85	<0.001	1.4	<0.005	<0.01	0.045	0.068										
	11/14/14	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	<0.006	0.18	<0.01	1.4	<0.005	<0.01	0.066	0.014										
MKTf-27	10/23/19	200.7/200.8	0.0011	0.041	<0.002	<0.006	<0.006	0.0068	0.017	<0.0025	0.048	0.0057	0.0019	NA	0.034										
	08/21/19	200.7/200.8	0.0011	0.041	<0.002	<0.006	<0.006	0.017	0.0089	<0.0025	0.32	0.0048	0.0028	0.031	0.008										
	05/06/19	200.7/200.8	0.0011	0.04	<0.002	<0.006	<0.006	0.0095	0.023	<0.0025	0.17	0.0093	0.0044	0.031	0.043										
	03/28/19	200.7/200.8	0.017	0.039	<0.002	<0.006	<0.006	0.011	0.12	<0.0025	0.011	0.0064	0.0049	0.025	0.019										
	11/15/18	200.7/200.8	0.0017	0.063	<0.002	<0.006	<0.006	0.0047	0.16	<0.0025	0.21	0.0052	<0.001	0.031	0.026										
	08/20/18	200.7/200.8	0.0024	0.068	<0.002	<0.006	<0.006	0.0052	<0.02	<0.0025	0.12	0.0064	<0.001	0.033	0.012										
	05/01/18	200.7/200.8	0.005	0.091	<0.002	<0.006	<0.006	0.0084	0.034	<0.005	0.033	0.0058	<0.005	0.034	0.0099										
	02/06/18	200.7/200.8	0.012	0.061	<0.002	<0.006	<0.006	0.0039	0.031	<0.01	0.032	0.0059	<0.02	0.033	0.0054										
	11/20/17	200.7/200.8	<0.005	0.069	<0.002	<0.006	<0.006	0.0047	0.1	<0.0025	0.24	0.0033	<0.005	0.046	0.0044										
	10/03/17	200.7/200.8	0.0037	0.067	<0.002	<0.006	<0.006	<0.006	0.018	<0.0025	0.17	<0.005	0.012	NA	0.033										
	06/05/17	200.7/200.8	0.0033	0.071	<0.002	<0.006	<0.006	<0.006	0.058	<0.0025	0.064	<0.005	0.011	0.058	0.018										
	03/29/17	200.7/200.8	0.004	0.097	<0.002	<0.006	<0.006	<0.006	0.034	<0.0025	0.49	<0.005	0.015	0.077	0.022										
	10/28/16	200.7/200.8	0.0033	0.065	<0.002	<0.006	<0.006	<0.006	0.039	<0.0025	0.085	<0.005	0.0095	0.059	<0.01										
	09/07/16	200.7/200.8	0.003	0.067	<0.002	<0.006	<0.006	<0.006	0.083	0.0063	0.29	<0.005	0.0092	0.055	0.0034										
	06/08/16	200.7/200.8	0.0036	0.074	<0.002	<0.006	<0.006	<0.006	0.4	0.0025	0.52	<0.005	0.014	0.056	0.007										
	02/22/16	200.7/200.8	0.00096	0.063	<0.002	<0.006	<0.006	<0.006	0.084	0.00041	0.12	<0.005	0.0039	0.061	0.012										
	11/04/15	200.7/200.8	<0.005	0.078	<0.002	<0.006	<0.006	<0.006	0.12	<0.005	0.7	<0.005	<0.02	0.066	<0.01										
	08/20/15	200.7/200.8	<0.005	0.092	<0.002	<0.006	<0.006	<0.006	1.8	<0.0025	0.49	<0.005	<0.01	0.069	<0.01										
	06/09/15	200.7/200.8	<0.005	0.083	<0.002	<0.006	<0.006	<0.006	0.56	<0.005	0.35	<0.005	0.0075	0.067	0.01										
	03/11/15	200.7/200.8	<0.01	0.086	<0.002	<0.006	<0.006	<0.006	0.15	<0.01	0.1	<0.005	0.014	0.075	<0.01										
11/14/14	200.7/200.8	<0.01	0.094	<0.002	<0.006	<0.006	<0.006	0.55	<0.01	0.28	<0.005	<0.01	0.075	0.03											



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-28	10/22/19	0.0013	0.051	<0.002	<0.006	<0.006	0.023	<0.0025	0.037	0.0013	<0.005	NA	0.023
	08/21/19	0.0011	0.052	<0.002	<0.006	0.0045	<0.02	<0.0005	0.023	0.0011	0.001	0.12	0.0051
	05/06/19	0.0011	0.04	<0.002	<0.006	0.0095	0.023	<0.0025	0.17	0.0093	0.0044	0.031	0.043
	03/28/19	0.0011	0.051	<0.002	<0.006	<0.006	0.022	<0.005	0.0036	<0.005	0.00044	0.13	0.052
	11/15/18	0.0012	0.048	<0.002	<0.006	0.0053	<0.02	<0.0005	0.0011	<0.005	<0.001	0.13	0.016
	08/20/18	0.0015	0.034	<0.002	<0.006	<0.006	0.031	<0.0005	0.0046	<0.005	<0.001	0.15	0.0088
	05/01/18	0.0015	0.046	<0.002	<0.006	<0.006	0.027	<0.0005	0.0024	<0.005	<0.001	0.14	0.0076
	02/06/18	0.0042	0.051	<0.002	<0.006	<0.006	0.034	<0.0005	0.0032	<0.005	<0.005	0.13	0.0076
	11/20/17	<0.01	0.087	<0.002	<0.006	0.0053	2.9	0.0029	0.18	<0.005	<0.01	0.15	0.0066
	10/03/17	0.0042	0.049	<0.002	0.0016	<0.006	<0.02	<0.0005	0.0017	<0.005	0.015	NA	0.049
	06/05/17	0.004	0.046	<0.002	<0.006	0.01	0.023	<0.0005	0.0023	<0.005	0.0086	0.13	0.019
	03/29/17	0.0029	0.049	<0.002	<0.006	<0.006	0.11	0.00042	0.011	<0.005	0.0081	0.16	0.016
	10/28/16	0.0047	0.061	<0.002	<0.006	<0.006	0.049	0.00022	0.021	<0.005	0.012	0.16	<0.01
	09/08/16	0.0039	0.061	<0.002	<0.006	<0.006	0.12	0.00087	0.031	<0.005	0.012	0.14	<0.01
	06/08/16	0.0054	0.074	<0.002	<0.006	<0.006	0.14	0.00076	0.022	<0.005	0.015	0.15	0.012
	02/23/16	0.0026	0.069	<0.002	<0.006	<0.006	0.064	0.00039	0.016	<0.005	0.0061	0.16	0.027
	11/04/15	<0.01	0.08	<0.002	<0.006	<0.006	0.081	<0.0005	0.088	<0.005	<0.05	0.15	<0.01
	08/20/15	<0.005	0.082	<0.002	<0.006	<0.006	0.19	<0.0025	0.018	<0.005	0.0081	0.15	<0.01
	06/09/15	<0.005	0.087	<0.002	<0.006	<0.006	0.062	<0.005	0.0054	<0.005	0.012	0.16	0.031
	03/11/15	<0.01	0.09	<0.002	<0.006	<0.006	0.075	<0.001	0.0057	<0.005	<0.05	0.17	<0.01
	11/14/14	<0.005	0.099	<0.002	<0.006	<0.006	0.63	<0.005	0.32	<0.005	<0.02	0.12	0.038



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-29	10/22/19	200.7/200.8	0.092	<0.002	<0.006	0.0057	0.66	<0.0025	2.1	0.0034	<0.005	NA	0.0069
	08/23/19	200.7/200.8	0.038	<0.002	<0.006	0.0029	0.0092	<0.0005	1.1	0.0017	0.00026	0.0063	0.0081
	05/06/19	200.7/200.8	0.043	<0.002	<0.006	<0.006	0.029	<0.0025	0.004	0.002	<0.005	0.14	0.025
	03/28/19	200.7/200.8	0.026	<0.002	<0.006	<0.006	0.02	<0.005	0.59	0.0016	0.00018	0.0076	0.03
	11/15/18	200.7/200.8	0.028	<0.002	<0.006	0.0049	<0.02	<0.0005	0.48	0.0021	<0.001	0.0077	0.03
	08/20/18	200.7/200.8	0.026	<0.002	<0.006	0.0038	0.053	<0.0005	0.48	0.002	<0.001	0.0082	0.0076
	05/01/18	200.7/200.8	0.021	<0.002	<0.006	<0.006	0.03	<0.0005	0.38	<0.005	<0.001	0.0079	0.0048
	02/06/18	200.7/200.8	0.024	<0.002	<0.006	<0.006	0.031	<0.0005	0.49	0.0023	<0.005	0.0094	0.0063
	11/20/17	200.7/200.8	0.031	<0.002	<0.006	<0.006	0.036	<0.0005	0.71	<0.005	<0.005	0.0092	0.0034
	10/03/17	200.7/200.8	0.031	<0.002	<0.006	<0.006	0.022	<0.0005	0.62	<0.005	0.0029	NA	0.064
	06/05/17	200.7/200.8	0.031	<0.002	<0.006	<0.006	0.029	<0.0005	0.53	<0.005	0.003	0.011	0.014
	03/29/17	200.7/200.8	0.032	<0.002	<0.006	0.0053	0.034	0.00017	0.35	<0.005	0.0038	0.012	0.021
	10/28/16	200.7/200.8	0.016	<0.002	<0.006	<0.006	<0.02	<0.0005	0.39	<0.005	0.0026	0.013	0.013
	09/07/16	200.7/200.8	0.018	<0.002	<0.006	<0.006	0.073	0.0021	0.62	<0.005	0.0023	0.012	<0.01
	06/09/16	200.7/200.8	0.021	<0.002	<0.006	<0.006	0.022	<0.0005	0.39	<0.005	0.0039	0.013	<0.01
	02/23/16	200.7/200.8	0.012	<0.002	<0.006	<0.006	0.059	0.000097	0.5	<0.005	0.0013	0.015	0.012
	11/04/15	200.7/200.8	0.022	<0.002	<0.006	<0.006	0.036	<0.005	0.55	<0.005	0.0035	0.016	<0.01
	08/20/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	0.073	<0.0025	0.49	<0.005	<0.005	0.018	<0.01
	06/10/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	0.049	<0.005	0.36	<0.005	<0.005	0.019	0.025
	03/11/15	200.7/200.8	0.0024	<0.002	<0.006	<0.006	<0.02	<0.001	0.34	<0.005	0.0045	0.023	<0.01



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-30	10/23/19	0.00079	0.032	<0.002	<0.006	<0.006	0.013	<0.0005	0.0013	0.0015	<0.005	NA	0.015
	08/23/19	0.00056	0.033	<0.002	<0.006	0.0035	<0.02	<0.0005	0.0014	<0.005	0.00057	0.034	0.0046
	05/06/19	0.00056	0.02	<0.002	<0.006	<0.006	0.012	<0.0025	0.0099	0.0029	<0.005	0.035	0.026
	03/28/19	0.00065	0.026	<0.002	<0.006	<0.006	0.043	0.00011	0.0065	0.00098	0.0004	0.034	0.024
	11/15/18	0.00056	0.03	<0.002	<0.006	<0.006	<0.02	<0.0005	0.013	<0.005	<0.001	0.025	0.035
	08/20/18	0.00073	0.032	<0.002	<0.006	<0.006	<0.02	<0.0005	0.015	0.0021	<0.001	0.03	0.013
	05/01/18	<0.005	0.016	<0.002	<0.006	<0.006	0.044	<0.0005	0.005	<0.005	<0.005	0.035	0.0054
	02/06/18	0.0035	0.027	<0.002	<0.006	<0.006	0.047	<0.0005	0.013	<0.005	<0.005	0.03	0.0069
	11/20/17	<0.005	0.032	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0081	<0.005	<0.005	0.029	0.005
	10/03/17	0.0026	0.033	<0.002	<0.006	<0.006	0.051	0.00018	0.017	<0.005	0.0042	NA	0.019
	06/05/17	0.0015	0.026	<0.002	<0.006	<0.006	0.024	<0.0005	0.017	<0.005	0.0044	0.039	0.014
	03/29/17	0.0013	0.039	<0.002	<0.006	<0.006	0.087	0.00037	0.044	<0.005	0.0055	0.033	0.021
	10/28/16	0.0027	0.046	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0031	<0.005	0.0077	0.029	<0.01
	09/07/16	0.0026	0.046	<0.002	<0.006	<0.006	<0.02	0.022	0.053	<0.005	0.0076	0.026	0.0048
	06/09/16	0.0041	0.04	<0.002	<0.006	<0.006	0.016	<0.0005	0.0075	<0.005	0.013	0.034	<0.01
	02/23/16	<0.005	0.046	<0.002	<0.006	<0.006	0.057	0.00036	0.017	<0.005	0.0042	0.029	0.011
	11/04/15	<0.005	0.048	<0.002	<0.006	<0.006	0.036	<0.005	0.008	<0.005	0.01	0.024	<0.01
	08/20/15	<0.005	0.071	<0.002	<0.006	<0.006	2.4	<0.0025	0.14	<0.005	<0.01	0.028	<0.01
	06/10/15	<0.005	0.05	<0.002	<0.006	<0.006	0.58	<0.005	0.089	<0.005	0.0065	0.033	<0.01
	03/11/15	<0.01	0.036	<0.002	<0.006	<0.006	0.19	<0.01	0.018	<0.005	0.014	0.041	<0.01
	11/17/14	<0.01	0.036	<0.002	<0.006	<0.006	0.26	<0.001	0.021	<0.005	<0.01	0.041	0.039



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS																
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10		
	40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE		
	NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	NE	2.02	0.0812	0.0987	0.0592	5.96	
	EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6		
	MKTf-31	WELL ID	DATE SAMPLED	METHOD												
				200.7/200.8	0.00066	0.13	<0.002	<0.006	<0.006	<0.02	<0.0005	0.015	0.0033	<0.005	NA	0.014
			10/22/19	200.7/200.8	0.00064	0.13	<0.002	<0.006	0.0019	0.027	0.000089	0.021	0.0024	0.00036	0.042	0.0042
			08/23/19	200.7/200.8	0.00095	0.17	<0.002	<0.006	<0.006	<0.02	<0.0025	0.011	0.0056	<0.005	0.047	0.048
			05/06/19	200.7/200.8	0.00059	0.14	<0.002	<0.006	0.0075	<0.02	0.000076	0.017	0.0031	<0.001	0.041	0.019
			02/20/19	200.7/200.8	0.00062	0.14	<0.002	<0.006	<0.006	0.019	<0.0005	0.051	0.0033	<0.001	0.035	0.02
			11/15/18	200.7/200.8	0.001	0.13	<0.002	<0.006	<0.006	<0.02	<0.0005	0.065	0.0035	<0.001	0.04	0.011
			08/17/18	200.7/200.8	0.0012	0.11	<0.002	<0.006	<0.006	0.036	<0.0005	0.03	0.0052	<0.001	0.038	0.0037
			05/06/18	200.7/200.8	0.0032	0.12	<0.002	<0.006	<0.006	<0.02	<0.0005	0.028	0.0035	0.0056	0.039	0.0052
			02/05/18	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.006	0.026	<0.0005	0.025	0.0023	<0.005	0.04	<0.01
			11/21/17	200.7/200.8	0.0025	0.12	<0.002	<0.006	<0.006	<0.02	<0.0005	0.029	<0.005	0.0062	NA	0.012
			09/25/17	200.7/200.8	0.0025	0.14	<0.002	<0.006	<0.006	<0.02	<0.0005	0.013	<0.005	0.0072	0.046	0.012
			06/05/17	200.7/200.8	0.0026	0.17	<0.002	<0.006	<0.006	<0.02	<0.0005	0.022	<0.005	0.0078	NA	0.018
			03/07/17	200.7/200.8	0.0026	0.13	<0.002	<0.006	<0.006	0.02	<0.0005	0.018	<0.005	0.01	0.043	<0.01
			10/31/16	200.7/200.8	0.0021	0.14	<0.002	<0.006	<0.006	<0.02	0.00084	0.035	<0.005	0.0068	0.04	<0.01
			09/08/16	200.7/200.8	0.0043	0.14	<0.002	<0.006	<0.006	0.013	<0.0005	0.018	<0.005	0.014	0.046	<0.01
		06/09/16	200.7/200.8	0.0014	0.12	<0.002	<0.006	<0.006	0.011	0.000084	0.02	<0.005	0.0036	0.046	0.01	
		02/23/16	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.02	<0.005	0.033	<0.005	0.0085	0.042	<0.01	
		11/04/15	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.02	<0.0005	0.035	<0.005	<0.01	0.047	<0.01	
		08/21/15	200.7/200.8	<0.005	0.13	<0.002	<0.006	<0.006	0.021	<0.005	0.026	<0.005	0.0058	0.048	0.032	
		06/10/15	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	0.026	<0.001	0.032	<0.005	0.013	0.054	<0.01	
	03/11/15	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	<0.02	<0.001	0.059	<0.005	0.0075	0.045	0.027		
	11/17/14	200.7/200.8														



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS														
PARAMETERS														
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD												
MKTF-32	10/23/19	200.7/200.8	0.003	0.052	<0.002	<0.006	0.0043	0.059	0.00015	0.043	<0.005	NA	0.0072	
	08/20/19	200.7/200.8	0.002	0.053	<0.002	<0.006	0.0052	<0.02	0.000089	0.11	<0.005	0.056	0.0045	
	05/07/19	200.7/200.8	0.002	0.045	<0.002	<0.006	0.0026	0.023	<0.0025	0.071	<0.005	0.053	0.041	
	02/13/19	200.7/200.8	0.0021	0.047	<0.002	<0.006	0.0045	<0.02	0.00011	0.059	<0.005	0.058	0.027	
	11/15/18	200.7/200.8	0.0022	0.043	<0.002	<0.006	0.0046	<0.02	<0.0005	0.045	<0.005	0.055	0.023	
	08/28/18	200.7/200.8	0.0025	0.051	<0.002	<0.006	0.0045	0.022	<0.0005	0.037	<0.005	0.055	0.0076	
	05/09/18	200.7/200.8	0.0026	0.045	<0.002	<0.006	0.0039	<0.02	<0.0025	0.049	<0.005	0.05	0.0092	
	02/07/18	200.7/200.8	<0.005	0.052	<0.002	<0.006	<0.006	0.031	<0.0005	0.062	<0.005	0.06	0.0068	
	11/27/17	200.7/200.8	0.0033	0.049	<0.002	<0.006	<0.006	0.043	<0.0025	0.078	<0.005	0.055	<0.01	
	09/25/17	200.7/200.8	0.0036	0.045	<0.002	<0.006	<0.006	0.023	<0.0005	0.075	<0.005	NA	0.0087	
	06/06/17	200.7/200.8	0.0041	0.049	<0.002	<0.006	<0.006	0.086	0.00035	0.05	<0.005	0.059	0.011	
	03/07/17	200.7/200.8	0.0039	0.043	<0.002	<0.006	<0.006	<0.02	<0.0005	0.065	<0.005	NA	0.029	
	10/31/16	200.7/200.8	0.004	0.051	<0.002	<0.006	<0.006	0.05	<0.0025	0.056	<0.005	0.059	0.0096	
	09/09/16	200.7/200.8	0.0038	0.05	<0.002	<0.006	<0.006	0.027	0.00031	0.074	<0.005	0.059	0.0095	
	06/09/16	200.7/200.8	0.0057	0.064	<0.002	<0.006	<0.006	0.099	0.00057	0.082	<0.005	0.064	<0.01	
	02/24/16	200.7/200.8	0.0029	0.049	<0.002	<0.006	<0.006	0.023	0.00024	0.062	<0.005	0.063	0.012	
	11/05/15	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.006	0.064	<0.0005	0.076	<0.005	0.059	<0.01	
	08/21/15	200.7/200.8	<0.005	0.077	<0.002	<0.006	<0.006	0.57	0.00051	0.06	<0.005	0.067	<0.01	
	06/09/15	200.7/200.8	<0.005	0.057	<0.002	<0.006	<0.006	0.058	<0.005	0.082	<0.005	0.066	0.016	
	03/12/15	200.7/200.8	<0.01	0.057	<0.002	<0.006	<0.006	0.18	<0.001	0.08	<0.005	0.068	0.014	
	11/17/14	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.006	0.21	<0.001	0.094	<0.005	0.059	0.01	



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS														
PARAMETERS														
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
WELL ID	DATE SAMPLED	METHOD												
MKTF-33	10/24/19	200.7/200.8	0.00062	<0.002	<0.006	0.0041	0.052	<0.0005	0.38	0.0019	0.00018	NA	0.017	
	08/20/19	200.7/200.8	0.00042	<0.002	<0.006	<0.006	0.12	<0.0005	0.44	0.0012	<0.001	0.033	0.004	
	05/09/19	200.7/200.8	0.00055	<0.002	<0.006	<0.006	0.016	<0.0025	0.081	<0.005	<0.005	0.032	0.031	
	03/26/19	200.7/200.8	0.00063	<0.002	<0.006	<0.006	0.11	0.000072	0.37	0.0012	<0.001	0.034	0.038	
	11/28/18	200.7/200.8	0.00049	<0.002	<0.006	<0.006	0.03	<0.0005	0.28	<0.005	<0.001	NA	0.032	
	08/30/18	200.7/200.8	0.00075	<0.002	<0.006	<0.006	<0.02	<0.0005	0.16	<0.005	<0.001	0.031	0.01	
	05/10/18	200.7/200.8	0.00076	<0.002	<0.006	<0.006	<0.02	<0.0025	0.15	<0.005	<0.005	0.032	0.0069	
	02/08/18	200.7/200.8	<0.001	0.04	<0.002	<0.006	<0.006	<0.02	<0.0005	0.26	0.0025	0.036	0.007	
	11/28/17	200.7/200.8	0.00071	0.04	<0.002	<0.006	<0.006	<0.02	<0.0005	0.28	<0.005	0.032	0.0051	
	09/25/17	200.7/200.8	<0.005	0.037	<0.002	<0.006	<0.006	<0.02	<0.0005	0.19	<0.005	NA	0.014	
	06/08/17	200.7/200.8	0.0011	0.04	<0.002	<0.006	<0.006	0.029	0.00019	0.042	<0.005	0.035	0.012	
	03/08/17	200.7/200.8	0.0014	0.04	<0.002	<0.006	<0.006	0.032	0.00025	0.2	<0.005	NA	0.029	
	11/01/16	200.7/200.8	0.0011	0.041	<0.002	<0.006	<0.006	<0.02	<0.0005	0.13	0.0028	0.038	0.017	
	09/10/16	200.7/200.8	0.0011	0.043	<0.002	<0.006	<0.006	0.02	0.00023	0.13	0.0035	0.037	<0.01	
	06/10/16	200.7/200.8	0.0017	0.04	<0.002	<0.006	<0.006	0.014	<0.0005	0.031	0.004	0.038	0.011	
	02/25/16	200.7/200.8	0.00079	0.047	<0.002	<0.006	<0.006	0.045	0.00011	0.16	<0.005	0.04	0.017	
	11/09/15	200.7/200.8	<0.005	0.062	<0.002	<0.006	<0.006	0.071	0.00059	0.24	<0.005	<0.005	0.04	<0.01
	08/21/15	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.006	<0.02	<0.0005	0.28	<0.005	0.0024	0.042	<0.01
	06/09/15	200.7/200.8	<0.005	0.055	<0.002	<0.006	<0.006	<0.02	<0.002	0.14	<0.005	<0.005	0.044	0.028
	03/12/15	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.026	<0.001	0.28	<0.005	<0.01	0.045	0.017
	11/17/14	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.006	0.061	<0.001	0.24	<0.005	<0.005	0.045	0.016



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
STANDARDS		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-34	10/29/19	200.7/200.8	0.00053	<0.002	<0.006	<0.006	<0.02	0.001	0.00044	0.0024	0.0044	NA	0.028
	08/19/19	200.7/200.8	0.00044	<0.002	<0.006	0.0026	<0.02	<0.0005	<0.002	0.003	0.0014	0.019	0.0085
	05/09/19	200.7/200.8	0.00065	<0.002	<0.006	<0.006	0.021	<0.0025	0.00082	0.002	<0.005	0.015	0.012
	03/26/19	200.7/200.8	0.00025	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00062	0.005	0.0007	0.011	0.032
	11/28/18	200.7/200.8	0.00087	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0004	<0.005	0.0022	0.036	0.026
	08/24/18	200.7/2008	0.0011	<0.002	<0.006	<0.006	<0.02	<0.0005	<0.002	<0.005	0.0025	0.036	0.0094
	05/04/18	200.7/200.8	0.0011	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00041	<0.005	0.0025	0.036	0.0061
	02/16/18	200.7/200.8	0.0026	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0025	<0.005	0.0067	0.035	0.0083
	12/01/17	200.7/200.8	<0.005	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.005	<0.005	0.036	0.0082
	09/26/17	200.7/200.8	0.0025	<0.002	0.0015	<0.006	<0.02	<0.0005	0.00062	<0.005	<0.02	NA	0.034
	06/14/17	200.7/200.8	0.0015	<0.002	<0.006	0.019	0.033	<0.0005	0.00099	<0.005	<0.02	NA	0.01
	03/01/17	200.7/200.8	0.0025	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00076	<0.005	0.0045	NA	0.028
	11/08/16	200.7/200.8	0.003	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00035	<0.005	0.0077	0.036	0.0031
	09/13/16	200.7/200.8	0.0042	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00053	<0.005	0.016	0.037	0.0032
	06/10/16	200.7/200.8	0.0046	<0.002	<0.006	<0.006	0.041	<0.0025	0.0017	<0.005	0.018	0.03	0.0037
	02/25/16	200.7/200.8	0.0032	<0.002	<0.006	<0.006	0.017	0.00013	0.001	<0.005	0.01	0.03	0.012
	01/03/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	<0.02	<0.0005	<0.002	<0.005	<0.02	0.027	<0.01
	08/18/15	200.7/200.8	<0.01	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.005	<0.01	0.027	<0.01
	06/08/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	0.11	<0.002	0.0059	<0.005	<0.01	0.029	0.018
	03/12/15	200.7/200.8	<0.01	<0.002	<0.006	<0.006	0.21	<0.001	0.013	<0.005	<0.05	0.025	<0.01
	11/17/14	200.7/200.8	<0.01	<0.002	<0.006	<0.006	<0.02	<0.001	0.0041	<0.005	<0.02	0.027	0.051



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS													
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
STANDARDS													
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)		0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD											
MKTF-35	10/29/19	200.7/200.8	0.00043	<0.002	<0.006	<0.006	3.4	0.00014	2.9	0.0033	0.00018	NA	0.018
	08/19/19	200.7/200.8	0.0014	<0.002	<0.006	0.0014	3.1	0.000089	2.8	0.0026	<0.001	0.0074	0.0091
	05/16/19	200.7/200.8	0.0004	<0.002	<0.006	0.0039	3.6	0.00031	3.3	0.0026	<0.001	0.0032	0.018
	03/26/19	200.7/200.8	0.00027	<0.002	<0.006	<0.006	3.6	0.00024	3.1	0.0019	<0.001	0.0029	0.023
	11/28/18	200.7/200.8	<0.001	<0.002	<0.006	<0.006	3.2	<0.0005	3	0.0025	<0.001	NA	0.044
	08/23/18	200.7/200.8	0.0011	<0.002	<0.006	<0.006	2.9	0.0002	2.9	0.0035	<0.001	0.0029	0.018
	05/03/18	200.7/200.8	0.0011	<0.002	<0.006	<0.006	3.3	0.00022	3.3	0.0022	<0.001	0.0028	0.0061
	02/15/18	200.7/2000.8	0.0023	<0.002	<0.006	<0.006	3.2	0.0002	3.4	0.0025	<0.01	0.0028	<0.05
	11/30/17	200.7/200.8	<0.005	<0.002	<0.006	<0.006	2.9	<0.0005	3.1	<0.005	<0.005	0.0024	<0.01
	09/27/17	200.7/200.8	0.002	<0.002	<0.006	<0.006	3.3	0.0003	3.4	<0.005	<0.02	NA	0.0067
	06/14/17	200.7/200.8	0.003	<0.002	<0.006	<0.006	3.1	0.00024	3.1	<0.005	<0.02	NA	0.0095
	03/01/17	200.7/200.8	0.00072	<0.002	<0.006	<0.006	3.1	<0.0005	3.3	<0.005	0.004	NA	0.023
	11/03/16	200.7/200.8	0.00081	<0.002	<0.006	<0.006	3	0.00032	2.9	<0.005	0.0014	0.00075	<0.01
	09/13/16	200.7/200.8	0.00089	<0.002	<0.006	<0.006	2.7	<0.0005	3.1	<0.005	0.0026	0.001	0.0032
	06/10/16	200.7/200.8	0.00061	<0.002	<0.006	<0.006	2.5	<0.0005	2.7	<0.005	0.0023	0.0011	<0.01
	02/26/16	200.7/200.8	0.00046	<0.002	<0.006	<0.006	2.8	0.00037	3	<0.005	0.00089	0.0016	0.0099
	11/03/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	2.6	<0.0005	3	<0.005	0.0035	0.0019	<0.01
	08/18/15	200.7/200.8	<0.01	<0.002	<0.006	<0.006	2.8	<0.0025	2.9	<0.005	<0.01	<0.0025	<0.01
	06/04/15	200.7/200.8	<0.005	<0.002	<0.006	<0.006	2.6	<0.005	3.1	<0.005	<0.005	<0.005	0.017
	03/17/15	200.7/200.8	<0.01	<0.002	<0.006	<0.006	3.6	0.0011	3.5	<0.005	<0.01	0.0026	<0.01



### 8.17.3 MKTF WELLS

## Dissolved Metals Analytical Result Summary

PARAMETERS														
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)		
STANDARDS	WQCC 20 NMAC 6.2.3103 (DEC 2018)													
	0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10		
	0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE		
	NMED Tap Water (JUNE 2019)													
	0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96		
	0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6		
	EPA RSL for Tap Water (NOVEMBER 2019)													
	WELL ID	DATE SAMPLED	METHOD											
	MKTf-36	09/05/18	200.7/200.8	5.9	<0.002	<0.006	<0.006	13	1.7	0.0018	0.0024	<0.001	<0.0005	0.01
		05/03/18	200.7/200.8	5.7	<0.002	<0.006	<0.006	12	1.9	0.0016	<0.005	<0.001	0.00011	0.0096
02/15/18		200.7/200.8	5.8	<0.002	<0.006	<0.006	14	1.9	0.002	<0.005	0.0037	<0.0005	0.006	
11/30/17		200.7/200.8	5.7	<0.002	<0.006	<0.006	13	1.7	0.002	<0.005	<0.005	0.00047	0.0063	
09/27/17		200.7/200.8	4.7	<0.002	<0.006	<0.006	13	1.7	0.0022	<0.005	0.0036	NA	0.043	
06/14/17		200.7/200.8	4.7	<0.002	<0.006	<0.006	14	1.8	0.002	<0.005	0.0026	NA	0.012	
03/01/17		200.7/200.8	5.4	<0.002	<0.006	<0.006	17	2.1	0.002	<0.005	0.0036	NA	0.022	
11/08/16		200.7/200.8	6	<0.002	<0.006	<0.006	13	1.9	0.0022	<0.005	0.0042	0.00021	0.0055	
08/18/15		200.7/200.8	6.1	<0.002	0.0064	<0.006	18	2.5	<0.0025	<0.005	<0.01	<0.0025	<0.01	
06/04/15		200.7/200.8	6.6	<0.002	<0.006	<0.006	18	2.4	<0.005	<0.005	<0.005	<0.005	0.012	
03/17/15	200.7/200.8	6.4	<0.002	<0.006	<0.006	19	2.6	0.0034	<0.005	<0.01	<0.001	0.047		
MKTf-37	10/28/19	--	SPH Detected - No samples were collected.											
	08/23/19	--	SPH Detected - No samples were collected.											
	05/16/19	--	SPH Detected - No samples were collected.											
	03/26/19	200.7/200.8	0.0013	0.48	<0.002	<0.006	<0.006	0.34	0.0027	<0.005	0.00062	0.0093	0.018	
	08/23/18	200.7/200.8	0.0024	0.96	<0.002	<0.006	<0.006	0.99	0.00088	<0.005	<0.001	0.019	0.0081	
	05/03/18	200.7/200.8	0.0025	1.1	<0.002	<0.006	<0.006	1.9	0.0011	<0.005	<0.001	0.016	0.0074	
	03/01/17	200.7/200.8	0.0036	1.2	<0.002	<0.002	<0.006	2.4	0.002	<0.005	0.004	NA	0.024	
	11/03/16	200.7/200.8	0.0035	0.58	<0.002	<0.006	<0.006	0.25	0.00025	<0.005	0.003	0.036	<0.01	
	08/19/15	200.7/200.9	<0.02	1.19	<0.002	<0.006	<0.006	2.6	0.0047	<0.005	<0.01	1.019	<0.02	
	06/04/15	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	1.8	<0.01	<0.005	<0.01	0.023	0.039	
03/17/15	200.7/200.8	<0.005	0.16	<0.002	<0.006	<0.006	1.1	0.0071	<0.005	<0.01	0.021	0.029		



### 8.17.3 MKTF WELLS

## Dissolved Metals Analytical Result Summary

PARAMETERS														
		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
STANDARDS		0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10	
WQCC 20 NMAC 6.2.3103 (DEC 2018)		0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE	
40 CFR 141.62 MCL		0.00085	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96	
NMED Tap Water (JUNE 2019)		0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6	
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTf-38	12/03/19	200.7/200.8	0.00049	0.024	<0.002	<0.006	<0.006	0.022	0.000089	2.1	0.002	0.0056	0.019	0.022
	08/20/19	200.7/200.8	0.00044	0.027	<0.002	<0.006	0.0048	<0.02	<0.0005	2.4	0.0028	0.0029	0.022	0.0044
	06/27/19	200.7/200.8	0.0005	0.028	<0.002	<0.006	<0.006	<0.02	<0.0005	2.3	0.0027	0.0022	0.02	0.079
	05/14/19	200.7/200.8	<0.005	0.029	<0.002	<0.006	<0.006	<0.02	<0.0025	2.2	0.003	0.00098	0.021	0.018
	03/26/19	200.7/200.8	0.00034	0.034	<0.002	<0.006	<0.006	0.032	0.00011	2.1	0.0023	0.00071	0.018	0.038
	11/20/18	200.7/200.8	0.0007	0.052	<0.002	<0.006	<0.006	<0.02	<0.0005	2.7	0.0034	0.0017	NA	0.031
	08/21/18	200.7/200.8	0.0014	0.043	<0.002	<0.006	<0.006	0.037	<0.0025	2.2	0.004	0.00076	0.027	0.01
	05/03/18	200.7/200.8	<0.005	0.034	<0.002	<0.006	<0.006	<0.02	<0.0025	2.5	0.0028	<0.005	0.026	0.0071
	02/12/18	200.7/200.8	0.0039	0.032	<0.002	<0.006	0.0034	<0.02	<0.0005	1.6	<0.005	0.0078	0.029	0.0057
	11/30/17	200.7/200.8	<0.005	0.031	<0.002	<0.006	<0.006	<0.02	<0.0025	1.8	<0.005	<0.005	0.026	<0.01
	09/28/17	200.7/200.8	0.0017	0.03	<0.002	<0.006	<0.006	<0.02	<0.0005	2.1	<0.005	0.0041	NA	0.044
	06/21/17	200.7/200.8	0.0026	0.041	<0.002	<0.006	<0.006	0.076	0.00027	2.5	<0.005	0.0043	0.024	0.011
	03/14/17	200.7/200.8	0.0011	0.037	<0.002	<0.006	<0.006	0.098	0.00031	2.6	<0.005	0.003	0.015	0.029
	11/01/16	200.7/200.8	0.0014	0.044	<0.002	<0.006	<0.006	0.038	<0.0005	3.3	<0.005	0.004	0.013	<0.01
	09/13/16	200.7/200.8	0.0018	0.039	<0.002	<0.006	<0.006	<0.02	<0.0005	3.1	<0.005	0.0053	0.013	0.004
	06/08/16	200.7/200.8	0.0013	0.031	<0.002	<0.006	<0.006	0.015	<0.0005	2.8	<0.005	0.0057	0.013	0.0074
	02/29/16	200.7/200.8	0.0014	0.03	<0.002	<0.006	<0.006	0.07	0.000047	2.3	<0.005	0.0033	0.012	0.012
11/09/15	200.7/200.8	<0.005	0.066	<0.002	<0.006	<0.006	0.22	0.001	3.4	<0.005	<0.05	0.019	<0.01	
08/24/15	200.7/200.8	0.0019	0.066	<0.002	<0.006	<0.006	0.094	<0.0005	3	<0.005	0.0033	0.023	<0.01	
06/10/15	200.7/200.8	<0.005	0.074	<0.002	<0.006	<0.006	0.31	<0.005	3.1	<0.005	<0.005	0.021	0.021	
03/16/15	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	0.24	<0.001	3.1	<0.005	<0.01	0.025	0.096	







8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
STANDARDS			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
40 CFR 141.62 MCL			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
NMED Tap Water (JUNE 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTF-40	10/22/19	200.7/200.8	0.00073	0.062	<0.002	<0.006	<0.006	0.032	0.0023	0.021	0.0046	<0.005	NA	0.016
	08/22/19	200.7/200.8	0.00074	0.064	<0.002	<0.006	0.0031	0.098	<0.0025	0.0068	0.0047	<0.005	0.05	0.0031
	05/06/19	200.7/200.8	0.00073	0.051	<0.002	<0.006	<0.006	0.034	<0.0025	0.0019	0.0071	<0.005	0.046	0.037
	02/20/19	200.7/200.8	<0.005	0.052	<0.002	<0.006	0.0058	0.035	<0.0025	0.0029	0.0057	<0.005	0.042	0.027
	11/15/18	200.7/200.8	0.0014	0.049	<0.002	<0.006	0.0032	<0.02	<0.0005	0.0031	0.0054	<0.001	0.039	0.025
	08/17/18	200.7/200.8	0.0023	0.04	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	0.0052	<0.005	0.053	0.011
	05/06/18	200.7/200.8	0.0029	0.059	<0.002	<0.006	0.0055	0.03	<0.0025	0.036	0.03	<0.005	0.048	<0.01
	02/05/18	200.7/200.8	<0.05	0.08	<0.002	<0.006	0.0033	<0.02	<0.025	0.06	0.0082	0.012	0.044	0.0034
	11/21/17	200.7/200.8	0.0046	0.076	<0.002	<0.006	<0.006	0.072	<0.0025	0.021	0.0056	<0.01	0.052	<0.01
	09/25/17	200.7/200.8	0.0026	0.072	<0.002	<0.006	<0.006	0.094	<0.0025	0.052	<0.005	0.0082	NA	0.012
	06/05/17	200.7/200.8	0.0023	0.079	<0.002	<0.006	0.0081	0.053	<0.0025	0.09	<0.005	0.0075	0.058	0.018
	03/07/17	200.7/200.8	0.0029	0.097	<0.002	<0.006	<0.006	<0.02	<0.0025	0.04	<0.005	0.01	NA	0.02
	10/31/16	200.7/200.8	0.0039	0.1	<0.002	<0.006	<0.006	0.045	<0.0025	0.11	<0.005	0.012	0.06	0.0029
	09/08/16	200.7/200.8	0.0023	0.11	<0.002	<0.006	<0.006	0.11	<0.0025	0.052	<0.005	0.0096	0.059	0.0031
	06/09/16	200.7/200.8	<0.05	0.13	<0.002	<0.006	<0.006	0.089	<0.0025	0.18	<0.005	0.019	0.058	<0.01
	02/23/16	200.7/200.8	<0.01	0.064	<0.002	<0.006	<0.006	0.093	0.00053	0.041	<0.005	<0.01	0.077	0.016
	11/04/15	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	0.051	<0.0025	0.23	<0.005	<0.02	0.06	<0.01
	08/21/15	200.7/200.8	<0.005	0.086	<0.002	<0.006	<0.006	0.039	<0.0025	0.18	<0.005	0.0078	0.087	<0.01
	06/10/15	200.7/200.8	<0.005	0.16	<0.002	<0.006	<0.006	0.11	<0.005	0.15	<0.005	0.0096	0.069	0.022
	03/11/15	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	0.11	<0.01	0.2	<0.005	0.02	0.07	<0.01



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (JUNE 2019)														
EPA RSL for Tap Water (NOVEMBER 2019)														
WELL ID	DATE SAMPLED	METHOD												
MKTf-41	10/23/19	200.7/200.8	0.0022	0.073	<0.002	<0.006	0.0035	0.0091	<0.0005	0.0013	<0.005	0.039	NA	0.011
	08/22/19	200.7/200.8	0.0018	0.073	<0.002	<0.006	0.0025	0.022	<0.0005	0.0024	<0.005	0.034	0.014	0.0058
	05/07/19	200.7/200.8	0.0011	0.075	<0.002	<0.006	0.0019	<0.02	<0.0025	0.0023	<0.005	0.036	0.013	0.042
	02/13/19	200.7/200.8	0.0019	0.06	<0.002	<0.006	0.0028	<0.02	<0.005	0.0085	<0.0005	0.033	0.012	0.022
	11/15/18	200.7/200.8	0.002	0.059	<0.002	0.0021	<0.006	<0.02	<0.0005	0.0024	<0.005	0.033	0.0092	0.023
	08/29/18	200.7/200.8	<0.005	0.056	<0.002	0.0016	<0.006	0.029	<0.0025	0.0028	<0.005	0.035	0.013	0.01
	05/09/18	200.7/200.8	0.0024	0.052	<0.002	0.0013	<0.006	<0.02	<0.0025	0.0014	<0.005	0.04	0.011	0.0084
	02/07/18	200.7/200.8	<0.02	0.057	<0.002	<0.006	<0.006	0.017	<0.0005	0.0016	<0.005	0.038	0.015	0.0075
	11/27/17	200.7/200.8	<0.05	0.061	<0.002	<0.006	<0.006	0.02	<0.0025	0.0016	<0.005	0.037	0.013	<0.01
	09/25/17	200.7/200.8	0.0063	0.063	<0.002	0.0021	<0.006	0.018	<0.0005	0.0014	<0.005	0.045	NA	0.065
	06/06/17	200.7/200.8	0.0064	0.056	<0.002	0.0017	<0.006	0.14	0.00055	0.014	<0.005	0.044	0.02	0.018
	03/07/17	200.7/200.8	0.0055	0.056	<0.002	0.002	<0.006	<0.02	<0.0005	0.0016	<0.005	0.049	NA	0.015
	10/31/16	200.7/200.8	0.0054	0.058	<0.002	<0.006	<0.006	0.052	<0.0025	0.0043	<0.005	0.05	0.013	<0.01
	09/09/16	200.7/200.8	<0.05	0.059	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0012	<0.005	0.048	0.014	0.0098
	06/09/16	200.7/200.8	0.0075	0.071	<0.002	0.0027	<0.006	0.19	0.00091	0.019	<0.005	0.06	0.023	0.0029
	02/24/16	200.7/200.8	0.0051	0.07	<0.002	0.0025	<0.006	0.074	0.00035	0.0068	<0.005	0.047	0.023	0.0063
	11/05/15	200.7/200.8	<0.01	0.083	<0.002	<0.006	<0.006	0.27	0.0015	0.037	<0.005	0.054	0.022	<0.01
	08/21/15	200.7/200.8	<0.01	0.097	<0.002	<0.006	<0.006	1.4	0.0013	0.044	<0.005	0.049	0.026	<0.01
	06/09/15	200.7/200.8	<0.005	0.073	<0.002	<0.006	<0.006	0.18	<0.005	0.011	<0.005	0.045	0.03	0.018
	03/12/15	200.7/200.8	<0.01	0.081	<0.002	<0.006	<0.006	0.2	<0.001	0.024	<0.005	0.059	0.034	0.013



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS														
PARAMETERS														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20 NMAC 6.2.3103 (DEC 2018)			0.01	2	0.005	0.05	1	1	0.015	0.2	0.05	0.05	0.03	10
40 CFR 141.62 MCL			0.01	2	0.005	0.1	1.3	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (JUNE 2019)			0.000855	3.28	0.00624	0.0057	0.7898	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOVEMBER 2019)			0.000052	3.8	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.004	6
WELL ID	DATE SAMPLED	METHOD												
MKTF-42	10/23/19	200.7/200.8	0.004	0.059	<0.002	<0.006	0.005	0.03	<0.005	0.1	0.00094	<0.01	NA	0.015
	08/22/19	200.7/200.8	0.0016	0.058	<0.002	<0.006	0.0029	0.049	<0.0005	0.11	<0.005	0.00058	0.0098	0.0091
	05/07/19	200.7/200.8	0.0012	0.059	<0.002	<0.006	0.0024	0.037	<0.025	0.121	<0.005	0.0015	0.012	0.0078
	02/13/19	200.7/200.8	0.0014	0.057	<0.002	<0.006	0.0034	<0.02	<0.0005	0.044	<0.005	0.0012	0.016	0.016
	11/15/18	200.7/200.8	0.0019	0.037	<0.002	<0.006	<0.006	0.02	<0.0005	0.055	<0.005	0.0012	0.0092	0.025
	08/29/18	200.7/200.8	<0.005	0.064	<0.002	<0.006	0.0051	0.11	<0.0025	0.14	<0.005	<0.005	0.011	0.0088
	05/09/18	200.7/200.8	<0.005	0.057	<0.002	<0.006	<0.006	0.096	<0.0025	0.17	<0.005	<0.005	0.0077	0.006
	02/07/18	200.7/200.8	<0.005	0.068	<0.002	<0.006	<0.006	0.28	<0.0005	0.21	<0.005	<0.005	0.0083	0.0068
	11/27/17	200.7/200.8	0.0033	0.064	<0.002	<0.006	<0.006	0.21	<0.0025	0.21	<0.005	0.0044	0.0093	<0.01
	09/25/17	200.7/200.8`	0.0036	0.059	<0.002	<0.006	<0.006	0.056	<0.0005	0.19	<0.005	0.0086	NA	0.006
	06/06/17	200.7/200.8	0.0035	0.065	<0.002	<0.006	0.0084	0.21	<0.0005	0.24	<0.005	0.0079	0.013	0.016
	03/07/17	200.7/200.8	0.0033	0.079	<0.002	<0.006	<0.006	0.061	<0.0005	0.23	<0.005	0.0086	NA	0.015
	10/31/16	200.7/200.8	0.0044	0.075	<0.002	<0.006	<0.006	0.18	<0.0025	0.3	<0.005	0.012	0.013	<0.01
	09/09/16	200.7/200.8	0.0033	0.078	<0.002	<0.006	0.0052	0.081	0.00067	0.29	<0.005	0.0095	0.019	0.0078
	06/09/16	200.7/200.8`	0.006	0.079	<0.002	<0.006	<0.006	0.077	0.00031	0.37	<0.005	0.016	0.021	<0.01
	02/24/16	200.7/200.8	0.0029	0.073	<0.002	<0.006	<0.006	0.19	0.00016	0.44	<0.005	0.0071	0.025	0.0099
	11/05/15	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.006	0.092	<0.0005	0.43	<0.005	0.012	0.024	<0.01
	08/21/15	200.7/200.8	<0.005	0.078	<0.002	<0.006	<0.006	0.046	<0.0005	0.39	<0.005	0.0075	0.029	<0.01
	06/09/15	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.006	0.031	<0.005	0.55	<0.005	0.0072	0.035	<0.01
	03/11/15	200.7/200.8	<0.01	0.094	<0.002	<0.006	<0.006	0.11	<0.001	0.54	<0.005	0.015	0.04	0.036



8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS																
STANDARDS																
WQCC 20 NMAC 6.2.3103 (DEC 2018)																
40 CFR 141.62 MCL																
NMED Tap Water (JUNE 2019)																
EPA RSL for Tap Water (NOVEMBER 2019)																
WELL ID	DATE SAMPLED	METHOD		Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)	
MKTF-43	10/24/19	200.7/200.8		0.0011	0.095	<0.002	<0.006	<0.006	0.014	<0.0025	0.45	0.014	0.0011	NA	0.023	
	08/22/19	200.7/200.8		0.0011	0.085	<0.002	<0.006	0.009	<0.02	<0.0025	0.77	0.0096	0.00092	0.058	0.0052	
	05/08/19	200.7/200.8		0.00073	0.1	<0.002	<0.006	0.0042	<0.02	<0.00245	0.53	0.011	<0.005	0.034	0.0086	
	02/13/19	200.7/200.8		0.0015	0.094	<0.002	<0.006	0.0056	0.011	<0.0005	0.3	0.012	<0.005	0.046	0.02	
	11/15/18	200.7/200.8		0.002	0.071	<0.002	<0.006	0.0032	<0.02	<0.0005	0.26	0.0088	<0.001	0.028	0.025	
	08/30/18	200.7/200.8		0.0036	0.14	<0.002	<0.006	<0.006	<0.02	<0.0005	0.38	0.013	<0.005	0.019	0.011	
	05/09/18	200.7/200.8		0.01	0.057	<0.002	<0.006	0.0057	<0.02	<0.005	1.7	0.017	<0.01	0.086	0.0064	
	02/07/18	200.7/200.8		0.013	0.075	<0.01	<0.03	<0.03	<0.1	<0.005	5.5	0.0096	<0.05	0.14	<0.05	
	11/27/17	200.7/200.8		0.0049	0.081	<0.002	<0.006	0.0076	0.072	<0.005	6.6	<0.05	<0.05	0.14	<0.01	
	09/25/17	200.7/200.8		<0.1	0.071	<0.002	<0.006	<0.006	<0.006	0.022	<0.005	9.7	<0.005	0.044	NA	<0.02
	06/06/17	200.7/200.8		<0.1	0.083	<0.002	<0.006	<0.006	<0.006	0.028	<0.005	6.6	<0.005	0.045	0.18	0.017
	03/08/17	200.7/200.8		0.017	0.068	<0.01	<0.03	<0.03	<0.1	<0.01	11	<0.025	0.059	NA	0.037	
	10/31/16	200.7/200.8		<0.05	0.13	<0.002	<0.006	<0.006	0.48	<0.01	19	<0.005	<0.5	0.19	0.016	
	09/09/16	200.7/200.8		0.018	0.086	<0.002	<0.006	<0.006	0.073	<0.005	23	<0.005	0.067	0.25	0.013	
	06/09/16	200.7/200.8		0.027	0.065	<0.002	<0.006	<0.006	0.11	<0.005	20	<0.005	0.091	0.27	0.0073	
	02/24/16	200.7/200.8		0.013	0.057	<0.002	<0.006	<0.006	0.041	<0.025	12	<0.005	0.043	0.24	0.017	
	11/05/15	200.7/200.8		<0.05	0.085	<0.002	<0.006	<0.006	0.11	<0.005	14	<0.005	0.094	0.25	0.011	
	08/21/15	200.7/200.8		<0.02	0.1	<0.002	<0.006	<0.006	0.062	<0.01	20	<0.005	0.06	0.28	<0.1	
	06/10/15	200.7/200.8		<0.05	0.12	<0.002	<0.006	<0.006	1.1	<0.05	15	<0.005	<0.1	0.23	0.032	
	03/11/15	200.7/200.8		<0.05	0.17	<0.01	0.048	<0.03	0.49	<0.05	3.7	<0.025	0.11	0.15	<0.05	







8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

PARAMETERS														

DEFINITIONS

NE = Not established  
NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Maximum Contaminant Levels for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

EPA Regional Screening Level (RSL) Summary Table

NOTES

- 2) 2009 Method 6010B Total Recoverable Metals Analysis run
- 3) Water level too shallow to collect samples.
- 4) Was not sampled in September due to low recharge rate.
- 5) Quarterly combined with 2013 Annual sampling event.



8.17.4 MKTF WELLS  
Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS		PARAMETERS																													
		Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3,4-Methylphenol (mg/L)	Naphthalene (mg/L)	Pentachlorophenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	2,4,6-Trichlorophenol (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	0.001	NE	0.005	NE	NE	NE	
	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.001	NE	NE	NE	NE	NE	
	0.535	NE	1.72	0.00012	NE	NE	0.0556	NE	NE	0.0343	0.0046	NE	NE	NE	0.075	0.612	0.354	0.288	0.0114	0.035	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE	0.0119	
	0.53	0.13	1.8	0.00003	75	2	0.056	0.16	NE	0.025	0.00046	0.2	0.0079	0.00048	15	NE	0.36	0.29	0.0011	0.036	0.93	0.93	0.93	0.00017	0.000041	NE	5.8	0.12	0.02	0.0041	
EPA RSL for Tap Water (NOVEMBER 2019)	Well ID	DATE SAMPLED	METHOD																												
	MKTF-1	02/24/16	8270C																												
		11/04/15	8270C	<0.0099	<0.0005	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		08/21/15	8270C	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		06/09/15	8270C	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		03/11/15	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		06/06/14	8270C	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
		11/19/19	8270D	0.00032	<0.0005	<0.0001	<0.0005	<0.0005	0.0018	<0.0005	<0.0005	<0.0005	0.0397	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		08/23/19	8270C	<0.0099	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		05/06/19	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		03/28/19	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		11/28/18	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		08/20/18	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
		05/01/18	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
02/06/18		8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
11/20/17	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
10/03/17	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
03/16/17	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
10/28/16	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
09/07/16	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
06/10/16	8270C	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
02/24/16	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
11/05/15	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
08/21/15	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
06/09/15	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0										







8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS																										
WQCC 20 NMAC 6.2.3103 (DEC 2018)	Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Pentachlorophenol (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	2,4,6-Trichlorophenol (mg/L)	
40 CFR 141.61 MCL	0.535	NE	NE	0.00012	NE	NE	0.0556	NE	NE	0.0343	0.0046	NE	NE	0.302	14.8	0.612	0.354	0.288	0.0114	0.035	NE	NE	NE	0.03	0.001	NE	NE	NE	0.0119
EPA RSL for Tap Water (NOVEMBER 2019)	0.53	0.13	1.8	0.00003	75	2	0.056	0.16	NE	0.025	0.00046	0.2	0.0079	0.00048	15	NE	0.36	0.29	0.0011	0.036	0.93	0.93	0.00017	0.000041	NE	5.8	0.12	0.02	0.0041
WELL ID	DATE SAMPLED	METHOD																											
MKTF-11	10/30/19	8270D	0.0092	<0.005	<0.005	0.0024	<0.005	0.00195	<0.005	<0.005	0.00852	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0192	<0.005	0.011	0.0114	0.0206	0.0172	0.0493	<0.005	<0.005	0.0177	<0.005	
	08/21/19	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0061	<0.01	0.0098	0.0073	0.031	0.024	0.036	<0.01	<0.01	0.023	<0.01		
	05/13/19	8270C	0.0049	<0.02	<0.02	<0.01	0.0026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	0.0031	0.011	0.0083	0.04	0.046	0.032	<0.01	<0.01	0.024	<0.01		
	03/26/19	8270C	0.0079	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.024	0.0087	0.011	0.011	0.071	0.087	0.038	<0.01	<0.01	0.038	<0.01		
	11/20/18	8270C	0.0092	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.028	<0.01	0.0084	0.0091	0.098	0.1	0.038	<0.01	<0.01	0.092	<0.01		
	09/04/18	8270C	0.011	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.038	<0.01	0.0099	0.011	0.11	0.12	0.047	<0.01	<0.01	0.056	<0.01		
	05/02/18	8270C	0.012	0.016	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.033	<0.01	0.0099	0.0091	0.12	0.15	0.039	<0.01	<0.01	0.052	<0.01		
	02/08/18	8270C	0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.054	<0.01	<0.01	0.012	0.2	0.26	0.054	<0.01	<0.01	0.08	<0.01		
	11/28/17	8270C	0.021	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.055	<0.01	<0.01	0.012	0.22	0.27	0.045	<0.01	<0.01	0.088	<0.01		
	09/26/17	8270C	0.026	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.086	<0.01	<0.01	0.013	0.33	0.39	0.044	<0.01	<0.01	0.094	<0.01		
	06/08/17	8270C	0.014	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.062	<0.01	0.011	0.0084	0.21	0.23	0.031	<0.01	<0.01	0.073	<0.01		
	03/02/17	8270C	<0.01	0.011	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.031	<0.01	0.0092	0.0069	0.04	0.031	0.024	<0.01	<0.01	0.015	<0.01		
	11/02/16	8270C	0.007	<0.02	<0.02	<0.01	<0.01	0.0064	0.0027	0.0024	<0.01	<0.01	0.0072	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	0.015	0.0095	0.096	0.089	0.034	<0.01	<0.01	0.04	<0.01	
	09/11/16	8270C	0.0093	<0.02	<0.02	<0.01	<0.01	0.0037	<0.01	<0.01	<0.01	<0.01	0.0037	<0.01	<0.01	<0.01	0.0029	0.042	<0.01	0.012	0.009	0.13	0.12	0.03	<0.01	<0.01	0.049	<0.01	
	06/09/16	8270C	0.0037	<0.02	<0.02	<0.01	<0.01	0.0032	<0.01	<0.01	<0.01	<0.01	0.0032	<0.01	<0.01	<0.01	0.022	0.022	<0.01	0.015	0.01	0.088	0.063	0.033	<0.01	<0.01	0.045	<0.01	
	02/29/16	8270C	0.011	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0048	<0.01	<0.01	<0.01	0.018	0.018	<0.01	0.014	0.011	0.084	0.049	0.038	<0.01	<0.01	0.029	<0.01	
	11/03/15	8270C	0.038	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	0.022	0.023	0.3	0.27	0.073	<0.01	<0.01	0.09	<0.01	
	08/18/15	8270C	<0.01	<0.029	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.01	<0.01	0.02	0.021	0.3	0.23	0.07	<0.01	<0.01	0.027	<0.01	
	06/04/15	8270C	0.046	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	0.025	0.02	0.27	0.24	0.069	<0.01	<0.01	0.053	<0.01	
	03/16/15	8270C	0.044	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	0.015	<0.01	0.07	0.046	0.031	<0.01	<0.01	0.052	<0.01	
	11/13/14	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	0.015	<0.01	0.07	0.046	0.031	<0.01	<0.01	0.02	<0.01	
	09/24/14	8270C	0.027	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	0.022	0.35	0.24	0.067	<0.01	<0.01	0.078	<0.01		
	06/05/14	8270C	0.025	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.092	<0.01	<0.01	0.011	<0.01	0.18	0.13	0.046	<0.01	<0.01	0.032	<0.01	
	04/11/14	8270C	0.023	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.078	<0.01	<0.01	0.012	<0.01	0.16	0.11	0.038	<0.01	<0.01	0.021	<0.01	
MKTF-13	10/29/19	8270D	0.00258	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0146	0.00724	0.0733	0.0994	<0.005	<0.005	0.13	0.00784	0.0379	<0.005	<0.005	
	08/20/19	--	SPH Detected - No samples were collected.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.044	0.23	0.18	<0.05	<0.05	0.14	0.048	<0.05	0.019	<0.05	
	05/09/19	8270C	<0.05	<0.1	0.073	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.072	0.08	<0.05	<0.05	0.096	<0.05	<0.05	0.038	<0.05	0.019	
	03/26/19	8270C	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.091	0.1	0.0076	0.0099	0.15	<0.05	<0.05	0.045	<0.05	0.019	
	11/28/18	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.041	0.046	<0.01	<0.01	0.057	<0.01	<0.01	0.03	<0.01	<0.01	
	08/30/18	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.0																				







8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

PARAMETERS														
STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)	Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)
	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	NE	NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	0.075
	0.535	NE	1.72	0.00012	NE	NE	0.0556	NE	NE	0.0343	0.0046	NE	NE	0.302
EPA RSL for Tap Water (NOVEMBER 2019)	0.53	0.13	1.8	0.00003	75	2	0.056	0.16	NE	0.025	0.00046	0.2	0.0079	0.00048
Well ID	DATE SAMPLED	METHOD												
MKTF-18	10/29/19	8270D	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	0.00178	0.0103	<0.001	<0.001	0.00694	0.0814
	08/19/19	–	SPH Detected - No samples were collected.											
	05/16/19	8270C	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02	0.08	0.02	<0.02	0.011	0.08
	03/26/19	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	11/28/18	8270C	<0.01	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0051	<0.01
	08/24/18	8270C	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.03	<0.01
	05/04/18	8270C	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	02/16/18	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	06/14/17	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.079	0.023	<0.01	0.007	0.079
	03/01/17	8270C	<0.01	<0.01	<0.02	<0.01	0.0075	<0.01	0.0026	0.063	0.024	<0.01	0.0062	0.063
	11/08/16	8270C	<0.01	<0.01	<0.02	8270C	0.0056	<0.01	<0.01	0.057	0.02	<0.01	0.0071	0.057
	09/13/16	8270C	<0.01	<0.01	0.0064	0.0043	<0.01	0.0064	<0.01	0.049	0.02	<0.01	0.006	0.049
	06/10/16	8270C	<0.01	<0.01	<0.02	0.0055	<0.01	<0.01	<0.01	0.054	0.014	<0.01	0.0041	0.054
	02/26/16	8270C			<0.02	8270C	<0.01	<0.01	<0.01	0.06	0.017	<0.01	<0.01	0.06
	11/03/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.079	0.017	<0.01	<0.01	0.079
	08/18/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	06/08/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.1	0.028	<0.01	<0.01	0.1
	03/17/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.11	0.036	<0.01	<0.01	0.11
	11/18/14	8270C	<0.01	<0.01	<0.02	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01
	09/18/14	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.12	0.023	<0.02	<0.01	0.12
	06/06/14	8270C	<0.014	<0.014	<0.029	<0.014	<0.014	<0.014	<0.014	0.064	<0.014	<0.029	<0.014	0.064
MKTF-19	10/29/19	8270D	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00855	0.0426	<0.005	<0.005	0.00671	0.148
	08/19/19	8270C	0.0053	<0.01	<0.02	0.0057	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	0.0071	0.16
	05/09/19	8270C	0.0057	<0.01	<0.02	0.0057	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.0088	0.15
	03/26/19	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.12	0.18	<0.01	0.0077	0.12
	11/28/18	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	0.008	<0.01	<0.01	<0.01	<0.01	0.12
	08/24/18	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	0.0078	<0.01	<0.01	<0.01	<0.01	0.14
	05/04/18	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.091	0.17	<0.01	<0.01	0.23
	02/16/18	8270C	0.0049	<0.01	<0.02	0.0049	<0.01	<0.01	<0.01	0.12	0.22	<0.01	0.0065	0.12
	12/01/17	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.18	0.27	<0.01	<0.01	0.18
	09/26/17	8270C	<0.01	<0.01	<0.02	0.0042	0.0051	<0.01	0.0055	0.1	0.16	<0.01	0.0043	0.1
	06/14/17	8270C	0.0042	<0.01	<0.02	0.0042	<0.01	<0.01	0.0062	0.11	0.16	<0.01	0.0045	0.11
	03/15/17	8270C	0.0036	<0.01	<0.02	0.0036	<0.01	<0.01	0.0046	0.088	0.12	<0.01	0.0039	0.12
	11/08/16	8270C	0.005	<0.01	<0.02	0.005	<0.01	<0.01	0.006	0.12	0.18	<0.01	0.0073	0.12
	09/13/16	8270C	0.0048	<0.01	<0.02	0.0048	<0.01	<0.01	0.0052	0.11	0.14	<0.01	0.0069	0.11
	06/10/16	8270C	0.0058	<0.01	<0.02	0.0058	<0.01	<0.01	0.0072	0.12	0.16	<0.01	0.0044	0.12
	02/25/16	8270C		<0.01	<0.02		<0.01	0.01	0.01	0.15	0.24	<0.01	<0.01	0.15
	11/03/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.16	0.29	<0.01	<0.01	0.16
	08/18/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	0.01	0.01	0.18	0.3	<0.01	<0.01	0.18
	06/08/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.14	0.21	<0.01	<0.01	0.14
	03/12/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.17	0.27	<0.01	<0.01	0.17
04/09/14	11/18/14	8270C	<0.01	<0.01	<0.02	<0.01	0.011	<0.01	<0.01	0.11	0.033	<0.01	<0.01	0.11
	09/24/14	8270C	<0.01	<0.01	<0.02	<0.01	0.011	<0.01	0.01	0.18	0.29	<0.02	<0.01	0.18
	04/09/14	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.16	0.25	<0.02	<0.01	0.16



8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS																														
			Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)	Diethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Pentachlorophenol (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	2,4,6-Trichlorophenol (mg/L)				
			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
			0.535	1.72	0.00012	NE	NE	NE	0.0556	NE	NE	0.0343	0.0046	NE	NE	NE	NE	0.075	14.8	0.612	0.288	0.0114	0.035	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE	0.0119	
			0.53	1.8	0.00003	75	2	0.056	0.16	NE	NE	0.025	0.00046	0.2	0.0079	0.00048	15	NE	0.36	0.29	0.0011	0.036	0.056	0.037	0.93	0.00017	0.000041	NE	5.8	0.12	0.02	0.0041	
Well ID	DATE SAMPLED	METHOD																															
MKTF-20	11/05/19	8270D	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00864	0.0106	<0.005	0.0275	0.0348	<0.005	<0.005	0.0304	<0.005	<0.005	<0.005			
	08/21/19	8270C	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	05/14/19	8270C	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	02/20/19	8270C	<0.05	<0.05	<0.05	0.044	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	11/29/18	8270C	<0.01	<0.01	<0.01	0.026	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	0.0063	0.0098	0.016	0.031	<0.02	<0.01	0.028	<0.01	<0.01	<0.01	<0.01		
	08/31/18	8270C	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	05/11/18	8270C	<0.1	<0.1	<0.1	0.16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.054	0.15	<0.2	<0.1	0.073	<0.1	<0.1	<0.1	<0.1	<0.1		
	02/15/18	8270C	<0.05	<0.05	<0.05	0.071	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.059	0.061	0.028	<0.05	0.31	<0.1	<0.05	0.23	<0.05	<0.05	<0.05	<0.05		
	11/29/17	8270C	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.037	0.041	0.075	0.022	0.16	<0.02	<0.01	0.085	<0.05	<0.05	<0.05	<0.05		
	09/26/17	8270C	<0.01	<0.01	<0.01	0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.038	0.037	0.13	0.18	0.073	<0.01	0.078	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/12/17	8270C	<0.05	<0.05	<0.05	<0.1	<0.05	0.036	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	0.11	<0.05	0.34	0.028	<0.05	0.029	0.038	0.34	0.19	0.072	<0.1	0.31	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	
	03/14/17	8270C	<0.05	<0.05	<0.05	0.067	<0.05	0.035	0.014	<0.05	<0.05	<0.05	0.018	0.036	0.038	<0.05	0.029	0.43	<0.05	0.05	0.038	0.16	0.089	0.11	<0.1	0.13	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	
	11/03/16	8270C	<0.05	<0.05	<0.05	0.061	<0.05	0.036	0.014	<0.05	<0.05	<0.05	0.036	0.038	0.025	<0.05	0.029	0.39	<0.05	0.048	0.043	0.19	0.061	0.11	0.025	0.061	<0.1	0.061	<0.1	<0.1	<0.1	<0.1	
	09/12/16	8270C	<0.1	<0.1	<0.1	0.13	<0.1	0.018	<0.1	<0.1	<0.1	<0.1	0.23	0.025	0.025	<0.05	0.029	0.23	<0.05	0.051	0.029	0.25	0.28	0.077	<0.05	0.24	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	
	06/09/16	8270C	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.025	0.025	0.025	<0.05	0.029	0.28	<0.05	0.036	0.023	0.096	<0.01	0.05	<0.01	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/01/16	8270C	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.23	<0.01	0.037	0.036	0.049	0.13	0.056	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/08/15	8270C	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.32	<0.01	0.045	0.037	0.21	0.36	0.13	<0.01	0.21	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/16/15	8270C	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.61	<0.01	0.11	0.066	0.12	0.051	0.1	<0.01	0.21	<0.01	0.037	<0.01	<0.01	<0.01	<0.01	0.016
	11/18/14	8270C	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.13	<0.013	0.088	0.12	0.12	0.076	0.25	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	
04/11/14	8270C	0.022	0.022	0.022	<0.026	<0.026	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.263	<0.013	0.0492	0.0571	<0.005	0.0304	0.216	<0.005	0.00279	0.0952	0.069	<0.005	0.0188	<0.005	<0.005		
MKTF-21	11/05/19	8270D	<0.005	<0.005	<0.005	<0.005	<0.005	0.047	<0.005	<0.005	<0.005	0.00709	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0093	0.0064	<0.005	<0.005	0.037	<0.005	<0.005	0.069	<0.005	0.0188	<0.005	<0.005		
	08/22/19	8270C	<0.011	<0.011	<0.011	0.038	0.0054	0.0054	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.069	<0.011	<0.011	<0.011	<0.011	<0.011		
	05/14/19	8270C	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.042	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
	02/20/19	8270C	<0.05	<0.05	<0.05	<0.1	<0.05	0.043	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.079	0.069	<0.01	<0.01	0.16	<0.1	<0.05	0.042	<0.05	<0.05	<0.05	<0.05	<0.05	
	11/29/18	8270C	<0.02	<0.02	<0.02	<0.02	<0.02	0.047	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.21	<0.02	<0.02	<0.02	<0.02	<0.02		
	08/31/18	8270C	<0.02	<0.02	<0.02	0.013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	05/11/18	8270C	<0.1	<0.1	<0.1	0.16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0																



8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS		PARAMETERS																											
		Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Pentachlorophenol (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	2,4,6-Trichlorophenol (mg/L)
		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
		0.535	0.13	1.72	0.00012	75	2	0.0556	0.16	0.0343	0.0046	0.2	0.0079	0.00048	0.354	0.288	0.0114	0.035	0.93	0.337	0.00041	0.00017	0.00165	0.00017	0.00165	0.00041	0.00017	0.00017	0.00017
Well ID	DATE SAMPLED	METHOD																											
MKTf-22	10/24/19	8270D	0.00363	<0.0005	0.00019	<0.0005	0.00234	0.0122	0.0069	0.0122	0.0154	<0.0005	<0.0005	0.00242	<0.0005	<0.0005	0.00495	0.0414	0.00151	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0113	0.00059	0.0358		
	08/20/19	8270C	<0.01	<0.01		<0.02	<0.01	0.0069	0.0069	0.0069		<0.01	<0.01		<0.01	<0.01	0.0036	0.035	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	
	05/09/19	8270C	<0.01	<0.01		<0.02	<0.01	0.0047	0.0047	0.0047		<0.01	<0.01		<0.01	<0.01	0.006	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	
	03/26/19	8270C	<0.01	<0.01		<0.02	<0.01					<0.01	<0.01		<0.01	<0.01	<0.01	0.022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.019	
	11/28/18	8270C	<0.01	<0.01		0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.023	
	08/30/18	8270C	<0.01	<0.01		0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.036	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.019	
	05/10/18	8270C	<0.01	<0.01		0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.033	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.017	
	02/08/18	8270C	<0.01	<0.01		0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.053	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.024	
	11/28/17	8270C	<0.01	<0.01		0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.075	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	
	10/03/17	8270C	<0.01	<0.01		0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.047	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	
	06/08/17	8270C	<0.01	<0.01		0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.044	0.0086	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0095	
	03/08/17	8270C	<0.01	<0.01		0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.035	0.003	0.0037	0.0057	0.007	0.013	<0.01	<0.01	<0.01	<0.01	0.023	
	11/01/16	8270C	0.0038	<0.01	<0.01	0.018	<0.01	0.0049	0.0049	0.0049	0.0049	0.0049	0.0034	0.0073	0.0057	0.003	0.003	0.039	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0077	
	09/10/16	8270C	<0.01	<0.01	<0.01	0.011	<0.02	0.0024	0.0024	0.0024	0.0024	0.0024	0.0034	0.0091	0.0052	0.003	0.003	0.067	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.019	
	06/10/16	8270C	0.0039	<0.01	<0.01	<0.02	<0.02	0.0046	0.0046	0.0046	0.0046	0.0046	0.0034	0.0053	0.0053	0.003	0.003	0.042	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
02/25/16	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
11/09/15	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01		
08/20/15	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014		
06/09/15	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018		
03/12/15	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014		
11/17/14	8270C		<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
04/10/14	8270C			<0.01		<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.045	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	
10/29/19	8270D		0.0796	<0.030	0.0216	<0.025	<0.05	<0.05	<0.05	<0.05	0.0125	<0.050	0.03	<0.030	<0.030	<0.030	<0.030	2.43	3.5	<0.030	<0.030	<0.030	<0.030	<0.030	0.337	<0.030	0.0606		
08/20/19	--		SPH Detected - No samples were collected.																										
05/09/19	--		SPH Detected - No samples were collected.																										
03/26/19	8270C		<0.01	<0.01		<0.02	<0.01			<0.01		<0.01			<0.01	<0.01	<0.01	0.053	0.062	0.026	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	0.0068		
06/10/16	8270C		<0.05	<0.05		<0.1	<0.02	<0.05	<0.05	<0.05					<0.01	<0.01	<0.01	7.8	5.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
02/25/16	8270C		<0.01	<0.01		<0.02	<0.02	<0.01	<0.01	<0.01		<0.01	0.03		<0.01	<0.01	<0.01	0.22	0.23	0.037	0.024	0.024	0.024	0.024	0.029	0.017	0.036		
11/09/15	8270C		<0.01	<0.01		<0.02	<0.02	<0.01	<0.01	<0.01		<0.01			<0.01	<0.01.													



















8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS		PARAMETERS																											
		Acenaphthene (mg/L)	Aniline (mg/L)	Anthracene (mg/L)	Benz(a)anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	1,4-Dioxane (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzofuran (mg/L)	1,4-Dichlorobenzene (mg/L)	Diethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Pentachlorophenol (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	2,4,6-Trichlorophenol (mg/L)	
WQCC 20 NMAC 6.2.3103 (DEC 2018)	40 CFR 141.61 MCL	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	0.001	NE	0.0005	NE	NE	
NMED Tap Water (JUNE 2019)		0.535	NE	1.72	0.00012	NE	NE	0.0556	NE	NE	0.0343	0.0046	NE	NE	0.302	14.8	0.354	0.288	0.0114	0.035	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE	
EPA RSL for Tap Water (NOVEMBER 2019)		0.53	0.13	1.8	0.00003	75	2	0.056	0.16	NE	0.025	0.00046	0.2	0.0079	0.00048	15	NE	0.29	0.0011	0.036	0.93	0.93	0.00017	0.000041	NE	5.8	0.12	0.02	
Well ID	DATE SAMPLED	METHOD																											
MKTF-35	10/29/19	8270D	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00259	<0.0005	<0.0005	0.00316	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00316	
	08/19/19	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	05/16/19	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	0.0043	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/26/19	8270C	<0.01	<0.01	0.0075	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/28/18	8270C	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	08/23/18	8270C	<0.01	<0.01	0.0071	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	05/03/18	8270C	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	02/15/18	8270C	<0.01	<0.01	0.008	<0.01	<0.01	0.0067	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/30/17	8270C	<0.01	<0.01	0.0083	<0.01	<0.01	0.0057	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	09/27/17	8270C	<0.01	<0.01	0.0075	<0.01	<0.01	0.0075	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/14/17	8270C	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/01/17	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	0.0076	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/03/16	8270C	<0.05	<0.05	0.055	<0.01	<0.01	0.034	<0.01	<0.05	<0.05	<0.05	0.034	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	09/13/16	8270C	<0.01	<0.01	0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/10/16	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	0.0032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	02/26/16	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/03/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	08/18/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	06/04/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	03/17/15	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/21/14	8270C	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
MKTF-36	11/06/19	-	SPH Detected - No samples were collected.																										
	08/19/19	-	Could not locate well - No samples were collected.																										
	05/14/19	-	Could not locate well - No samples were collected.																										
	03/25/19	-	Could not locate well - No samples were collected.																										
	11/29/18	-	Could not locate well - No samples were collected.																										
	09/05/18	8270C	0.011	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.0089	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0092	0.014	0.27	0.41	<0.01	<0.01	<0.01	<0.01	0.01	0.048	0.048	0.048	0.048
	05/03/18	8270C	0.0078	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.0074	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	0.31	0.19	<0.01	<0.01	<0.01	0.0063	<0.01	0.067	0.067	0.067	
	02/15/18	8270C	0.0097	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.0083	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.29	0.45	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	0.062	0.062	0.062
	11/30/17	8270C	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.29	0.44	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	09/27/17	8270C	<0.1	<0.1	0.064	<0.1	<0.1	0.21	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.27	0.44	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	06/14/17	8270C	0.0099	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.0099	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.35	0.35	0.32	<0.01	<0.01	<0.01	0.0087	<0.01	0.08	0.08	0.08	
	03/01/17	8270C	0.0067	<0.01	<0.02	<0.01	<0.01	0.0072	<0.01	0.0064	0.0086	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	0.19	0.32	<0.01	<0.01	<0.01	0.0057	<0.01	0.029	0.029	0.028	
11/08/16	8270C	0.0051	<0.01	<0.02	<0.01	<0.01	0.0071	0.0027	0.006	0.008	<0.01	0.008	0.008	<0.01	<0.01	<0.01	0.15	0.23	0.23	<0.01	<0.01	<0.01	0.0044	<0.01	0.028	0.028	0.028		
08/18/15	8270C		<0.01	<0.02	<0.01	<0.01	<0.01		<0.01	<0.0.																			















8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS		PARAMETERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibromo methane (EDB) (mg/L)	Napththa- lene (mg/L)	1-Methyl- naphtha- lene (mg/L)	2-Methyl- naphtha- lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl/ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro-form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DC (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2- Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2 pen- tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4- Trichloro- benzene (mg/L)	1,1,1- Trichloro ethane (mg/L)	1,1,2- Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.07	0.6	0.075	0.025	0.007	0.005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	0.005	0.07	0.2	0.005	0.005	0.002																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.07	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	NE	0.005	0.07	0.2	0.005	0.005	0.002																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
40 CFR 141.61 MCL		NE	NE	0.0017	0.0000747	0.00165	0.0114	0.035	14.06	0.0075	5.56	0.0776	20.86	0.00229	0.0203	0.0365	NE	0.0048	0.0275	0.284	0.00437	NE	0.447	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE



8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS			PARAMETERS																																			
WQCC 20 NMAC 6.2.3103 (DEC 2018)																																						
40 CFR 141.61 MCL																																						
NMED Tap Water (JUNE 2019)																																						
EPA RSL for Tap Water (NOVEMBER 2019)																																						
Well ID	DATE SAMPLED	METHOD	1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibromo methane (EDB) (mg/L)	Naphtha- lene (mg/L)	1-Methyl naphtha- lene (mg/L)	2-Methyl naphtha- lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro-form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCB (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2- Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2- pen- tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4- Trichloro- benzene (mg/L)	1,1,1- Trichloro ethane (mg/L)	1,1,2- Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)	
MKTF-10	10/30/19	82608	0.76	0.20	<0.01	<0.01	0.18	0.065	0.08	<0.1		<0.1		<0.02	0.03	0.039	0.039	0.6	0.07	0.025	0.007	0.005	NE	NE	0.066	<0.1	<0.03	<0.3	0.12	0.0099		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
	08/22/19	82608	0.85	0.19	<0.01	<0.01	0.18	0.066	0.085	0.1		<0.1		0.03	0.034	0.039	0.034	0.034	0.075	0.027	0.013	0.005	NE	NE	0.009	<0.1	<0.03	0.021	0.12	0.011		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
	05/13/19	82608	0.83	0.22	<0.05	<0.05	0.2	0.073	0.088	<0.5		<0.5		<0.1	<0.05	0.069	<0.05	0.077	0.075	0.013	0.005	NE	NE	0.009	<0.1	<0.03	<0.15	0.13	<0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.0032	
	03/26/19	82608	0.86	0.22	<0.1	<0.1	0.18	0.067	0.086	<1.0		<1.0		<0.2	<0.5	0.05	<0.5	<0.1	0.077	0.075	0.013	0.005	NE	NE	0.009	<0.1	<0.03	<0.15	0.12	0.011		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0032
	11/20/18	82608	1.1	0.25	<0.02	<0.02	0.23	0.068	0.087	<0.2		<0.2		0.073	0.078	<0.05	<0.05	0.058	0.047	<0.05	0.012	0.005	NE	NE	0.0082	<0.2	<0.06	0.014	0.14	0.012		<0.02	<0.02	<0.02	<0.02	<0.02	0.0074	
	09/04/18	82608	1	0.23	<0.05	<0.05	0.22	0.074	0.099	<0.5		<0.5		0.063	0.063	<0.05	<0.05	0.063	0.063	<0.05	0.012	0.005	NE	NE	0.006	<0.05	<0.15	0.014	0.15	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	0.018	
	05/02/18	82608	1.2	0.27	<0.05	<0.05	0.24	0.088	0.1	<0.5		<0.5		0.085	0.085	<0.05	<0.05	0.066	0.066	<0.05	0.011	0.005	NE	NE	0.0073	<0.05	<0.15	0.022	0.17	0.014		<0.05	<0.05	<0.05	<0.05	<0.05	0.018	
	02/14/18	82608	0.97	0.23	<0.05	<0.05	0.2	0.067	0.083	<0.5		<0.5		0.068	0.068	<0.05	<0.05	0.066	0.066	<0.05	0.011	0.005	NE	NE	0.0062	<0.05	<0.15	0.022	0.13	0.011		<0.05	<0.05	<0.05	<0.05	<0.05	0.018	
	11/28/17	82608	1	0.25	<0.1	<0.1	0.24	0.11	0.13	<1		<1		<0.1	<0.5	0.051	<0.05	0.051	0.051	<0.1	<0.1	<0.1	NE	NE	0.068	0.024	<1	<0.3	0.14	0.023		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	09/28/17	82608	0.92	0.21	<0.1	<0.1	0.23	0.098	0.097	<1		<1		<0.2	<0.5	0.053	<0.05	0.053	0.053	<0.1	<0.1	<0.1	NE	NE	0.053	<0.1	<0.3	0.13	<0.1	<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	06/08/17	82608	0.93	0.22	<0.1	<0.1	0.17	0.066	0.075	<1		<1		0.077	0.077	<0.05	<0.05	0.045	0.045	<0.1	<0.1	<0.1	NE	NE	0.055	0.012	<1	0.018	0.12	0.011		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	03/02/17	82608	0.98	0.22	<0.1	<0.1	0.23	0.064	0.066	<1		<1		<0.2	<0.5	0.043	<0.05	0.043	0.043	<0.1	<0.1	<0.1	NE	NE	0.04	<0.1	<0.3	0.11	0.033	0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	11/02/16	82608	0.85	0.20	<0.1	<0.1	0.24	0.1	0.1	<1.0		0.69		<0.2	<0.5	0.026	<0.05	0.026	0.026	<0.05	0.012	0.005	NE	NE	0.049	<0.01	<0.06	<0.3	0.032	0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	09/11/16	82608	0.84	0.20	<0.1	<0.1	0.35	0.15	0.16	<1.0		1.3		<0.2	<0.5	0.032	<0.05	0.032	0.032	<0.05	0.012	0.005	NE	NE	0.052	<0.01	<0.06	0.021	0.13	0.011		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
	06/09/16	82608	0.9	0.20	<0.02	<0.02	0.22	0.067	0.088	0.29		0.69		0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.072	<0.06	0.021	0.13	0.011		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
02/29/16	82608	0.9	0.20	<0.1	<0.1	0.21	0.074	0.087	0.16		0.68		0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	0.031	<0.1	<0.3	0.034	0.14	0.023		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
11/03/15	82608	0.85	0.21	<0.05	<0.05	0.17	<0.2	<0.2	<0.2	<0.5		<0.5		0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	<0.5	<0.15	0.12	<0.5	<0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
08/18/15	82608	0.88	0.22	<0.05	<0.05	0.23	<0.2	<0.2	<0.2	0.52		1.6		<0.5	<0.5	<0.05	<0.05	0.045	0.045	<0.05	0.012	0.005	NE	NE	0.054	<0.05	<0.15	0.14	<0.5	<0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
06/04/15	82608	0.79	0.21	<0.05	<0.05	0.19	<0.2	<0.2	<0.2	<0.5		1.3		<0.5	<0.5	<0.05	<0.05	0.043	0.043	<0.05	0.012	0.005	NE	NE	0.054	<0.05	<0.15	0.13	<0.5	<0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
03/16/15	82608	0.96	0.24	<0.05	<0.05	0.2	<0.2	<0.2	<0.2	<0.5		1.6		<0.5	<0.5	<0.05	<0.05	0.043	0.043	<0.05	0.012	0.005	NE	NE	0.054	<0.05	<0.15	0.14	<0.5	<0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
11/14/14	82608	1.5	0.57	<0.02	<0.02	0.36	0.24	0.38	<0.2		<0.2		<0.2	<0.5	0.066	<0.05	0.066	0.066	<0.05	0.012	0.005	NE	NE	0.12	0.034	<0.06	0.084	0.36	0.04	0.04		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
09/18/14	82608	0.5	0.11	<0.05	<0.05	0.13	<0.2	<0.2	<0.2	<0.5		2.8		<0.2	<0.5	0.057	<0.05	0.057	0.057	<0.05	0.011	0.005	NE	NE	0.057	<0.05	<0.15	0.068	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
06/06/14	82608	0.27	0.065	<0.01	<0.01	0.079	<0.04	<0.04	0.21		1.8		0.033	0.033	0.033	0.033	0.033	0.033	<0.05	0.051	<0.05	NE	NE	0.019	<0.01	<0.03	0.038	<0.05	<0.05	<0.05		0.015	<0.01	<0.01	<0.01	<0.01	<0.01	
04/11/14	82608	0.96	0.21	<0.05	<0.05	0.2	<0.2	<0.2	1.2		1		<0.5	<0.5	<0.05	<0.05	0.039	0.039	<0.05	0.051	<0.05	NE	NE	<0.05	<													



### 8.17.5 MKTF WELLS

## Volatile Organic Compounds Analytical Results

[illegible]



### 8.17.5 MKTF WELLS

## Volatile Organic Compounds Analytical Results

[illegible]



8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS			PARAMETERS																																										
WQCC 20 NMAC 6.2.3103 (DEC 2018)																																													
40 CFR 141.61 MCL																																													
NMED Tap Water (JUNE 2019)																																													
EPA RSL for Tap Water (NOVEMBER 2019)																																													
Well ID	DATE SAMPLED	METHOD	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) (mg/L)	Naptha-lene (mg/L)	1-Methyl naphtha-lene (mg/L)	2-Methyl naphtha-lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro-ethane (mg/L)	Chloro-form (mg/L)	Chloro-methane (mg/L)	cis-1,2-DCB (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2-Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pen-tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4-Trichloro-benzene (mg/L)	1,1,1-Trichloro ethane (mg/L)	1,1,2-Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)								
MKTF-23	10/24/19	82608/8011/504.1	<0.02	<0.02	<0.02	<0.0000093	0.0077	0.035	<0.08	<0.2		<0.2					<0.02			0.013	0.013	0.013	0.013	<0.02	<0.02	<0.06	0.005	0.027	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	08/20/19	82608/8011/504.1	<0.02	<0.02	<0.02	<0.0000093	0.013	0.034	<0.08	<0.2		<0.2					0.0089			0.013	0.017	0.013	0.016	0.062		<0.06	0.023	0.029	0.0078	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	05/09/19	82608/8011/504.1	0.0063	<0.02	<0.02	<0.0000093	0.015	0.07	<0.08	<0.2		<0.2					0.012			0.011	0.015	0.009	0.015	0.0062		<0.06	0.023	0.035	0.006	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	03/26/19	82608	0.0051	<0.02	<0.02	<0.0000093	0.0088	0.38	<0.08	<0.2		<0.2					0.0098			0.01	0.014	0.0096	0.0093	<0.02		<0.06	<0.06	0.014	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	11/28/18	82608	<0.02	<0.02	<0.02	<0.02	0.015	0.041	<0.08	<0.2		<0.2					0.011			<0.02	0.014	0.0077	0.0065	<0.02		<0.06	<0.06	0.014	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	08/30/18	82608	<0.02	<0.02	<0.02	<0.02	0.014	0.042	<0.08	<0.2		<0.2					0.008			<0.02	0.0081	0.0082	0.0077	<0.02		<0.06	<0.06	0.013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02				
	05/10/18	82608	0.0047	<0.01	<0.01	<0.01	0.016	0.053	<0.045	<0.1		<0.1					0.0097			<0.01	0.0082	0.0085	0.0085	0.002		<0.03	<0.03	0.018	0.0048	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01				
	02/08/18	82608	0.0056	0.0011	<0.01	<0.01	0.019	0.046	0.0058	<0.1		<0.1					0.0078			<0.01	0.0068	0.0062	0.007	0.0025		<0.03	0.0086	0.014	0.004	0.0041	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	11/28/17	82608	0.0094	0.0017	<0.01	<0.01	0.033	0.089	0.0086	0.023		<0.1					0.008			<0.01	0.0062	0.0041	0.01	0.0036		<0.03	0.011	0.023	0.0061	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	10/03/17	82608	0.015	<0.01	<0.01	<0.01	0.039	0.1	0.01	<0.1		<0.1					0.0061			0.0041	0.0051	0.0042	0.015	0.0023		0.0033	0.013	0.042	0.0066	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	06/08/17	82608	0.004	0.0014	<0.01	<0.01	0.032	0.058	0.0071	0.021		<0.1					0.0094			<0.01	0.0086	0.0082	0.0051	0.0017		0.0033	0.015	0.013	0.0027	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	03/08/17	82608	0.012	0.0022	<0.01	<0.01	0.07	0.09	0.016	0.034		<0.1					0.0083			0.0017	0.0086	0.0082	0.019	0.0032			0.015	0.05	0.0076	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
	11/01/16	82608	0.015	0.0019	<0.01	<0.01	0.07	0.094	0.014	<0.1		<0.1					0.0066			<0.01	0.0068	0.0094	0.013	0.0044			0.013	0.044	0.0078	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	09/10/16	82608	0.015	<0.02	<0.02	<0.02	0.078	0.088	0.014	<0.2		<0.2					0.011			<0.02	0.0094	0.0094	0.018	<0.02			0.0085	0.043	0.0042	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
06/10/16	82608	0.025	0.0017	<0.01	<0.01	0.073	0.088	0.016	0.082		<0.2					0.008			<0.01	0.0069	0.0071	0.021	0.0038			0.014	0.051	0.0074	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
02/25/16	82608	0.043	<0.02	0.003	<0.02	0.073	0.11	0.017	<0.2		<0.2					0.0077			<0.02	0.004	0.004	0.02	0.0037			0.013	0.05	0.0071	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
11/09/15	82608	0.029	<0.02	<0.02	<0.02	<0.04	<0.08	<0.08	<0.2		<0.2					<0.02			<0.02	<0.2	<0.2	<0.02	<0.02			<0.06	0.032	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
08/20/15	82608	<0.02	<0.02	<0.02	<0.02	<0.04	<0.08	<0.08	<0.2		<0.2					<0.02			<0.02	<0.02	<0.02	<0.02	<0.02			<0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
06/09/15	82608	0.053	<0.02	<0.02	<0.02	<0.04	0.08	<0.08	<0.2		<0.2					<0.02			<0.02	<0.02	<0.02	<0.02	<0.02			<0.06	0.033	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
03/12/15	82608	0.058	<0.02	<0.02	<0.02	<0.04	0.099	<0.08	<0.2		<0.2					<0.02			<0.02	<0.02	<0.02	<0.02	<0.02			<0.06	0.031	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
03/17/14	82608	<0.01	<0.01	<0.01	<0.01	0.058	0.058	<0.04	<0.1		<0.1					0.01			0.015	<0.01	<0.01	<0.01	<0.01			<0.03	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
04/10/14	82608	0.089	<0.01	<0.01	<0.01	<0.02	0.048	<0.04	<0.1		<0.1					<0.01			<0.01	<0.01	<0.01	0.015	<0.01			<0.03	0.033	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
MKTF-24	10/29/19	82608/8011/504.1/EDB	0.91	0.26	<0.1	<0.0000093	0.26	0.099	0.12	<1.0		<1.0					<0.1			0.061	0.042	0.033	0.034	<0.1			<0.3	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.053		
	08/20/19	--	SPH Detected - No samples were collected.																																										
	05/09/19	--	SPH Detected - No samples were collected.																																										
	03/26/19	82608/8011/504.1	1.1	0.33	<0.1	<0.0000093	0.25	0.094	0.11	<1.0		<1.0					0.024			0.05	0.037	0.096	0.033	<0.1			<0.3	0.081	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.048
	06/10/16	82608	1.5	0.52	<0.01		0.28	0.14	0.19	<0.1		<0.1					0.034			0.096	0.05																								



8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS															PARAMETERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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NMED Tap Water (JUNE 2019)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
EPA RSL for Tap Water (NOVEMBER 2019)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Well ID	DATE SAMPLED	METHOD	1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane [EDC] (mg/L)	1,2-Dibro methane [EDB] (mg/L)	Naptha- lene (mg/L)	1-Methyl naptha- lene (mg/L)	2-Methyl naptha- lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro-form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCB (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2- Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2 pen- tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene [PCE] (mg/L)	1,2,4- Trichloro- benzene (mg/L)	1,1,1- Trichloro ethane (mg/L)	1,1,2- Trichloro ethane (mg/L)	Trichloro ethene [TCE] (mg/L)	Vinyl Chloride (mg/L)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
MKTF-25	10/23/19	82608/8011/504.1/EDB	0.0013	<0.005	<b>0.0091</b>	<0.0000094	<0.01	<0.02	<0.02	<0.05		<0.05		<0.01	<0.02		0.027			<b>0.11</b>	<b>0.059</b>		0.0077	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<







8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS										PARAMETERS																														
WQCC 20 NWAC 6.2.3103 (DEC 2018)																																								
40 CFR 141.61 MCL																																								
NMED Tap Water (JUNE 2019)																																								
EPA RSI for Tap Water (NOVEMBER 2019)																																								
Well ID	DATE SAMPLED	METHOD	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro moethane (EDB) (mg/L)	Napththa-lene (mg/L)	1-Methyl naphtha-lene (mg/L)	2-Methyl naphtha-lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro-ethane (mg/L)	Chloro-form (mg/L)	Chloro-methane (mg/L)	cis-1,2-DCE (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2-Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pen-tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4-Trichloro-benzene (mg/L)	1,1,1-Trichloro ethane (mg/L)	1,1,2-Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)			
			NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	NE	NE	NE	0.1	NE	NE	0.07	0.6	0.075	0.025	0.007	0.005	NE	NE	NE	NE	0.005	NE	NE	NE	NE	0.1	NE	0.005	0.07	0.2	0.005	0.005	0.002
			NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.07	NE	0.075	0.025	0.007	0.005	NE	NE	NE	NE	0.005	NE	NE	NE	NE	0.1	NE	0.005	0.07	0.2	0.005	0.005	0.002
			0.056	0.06	0.00017	0.0000075	0.00017	0.00114	0.035	14.06	0.0075	5.56	0.0776	20.86	0.00229	0.0203	0.0365	0.036	NE	0.0048	0.0275	0.284	0.00437	NE	0.447	NE	1.24	0.106	NE	NE	NE	NE	1.21	NE	0.00398	8	0.00042	0.00259	0.00032	
			0.056	0.06	0.00017	0.0000075	0.00017	0.00114	0.036	14	0.0075	5.6	0.078	21	0.00022	0.19	0.036	0.3	0.00048	0.0028	0.28	0.00085	0.038	NE	NE	NE	6.3	0.011	1	0.66	2	1.2	0.69	0.011	0.0012	8	0.00028	0.00049	0.00019	
MKTF-31	10/23/19	82608/8011/504.1	0.00022	<0.001	0.021	0.0055	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	<0.0048	0.00048	0.0017	<0.001	<0.001	0.053	0.036	<0.001	0.00093	<0.001	0.0002	<0.003	<0.001	0.0004	<0.001	0.0004	<0.001	0.0004	<0.001	0.0004	<0.001	<0.001	<0.001	0.0036	0.0023	0.0044	0.00046	
	08/23/19	82608/8011/504.1	<0.001	<0.001	0.023	0.0000066	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00039	0.0006	0.0019	<0.001	<0.001	0.06	0.039	<0.001	0.001	<0.001	<0.002	<0.003	<0.001	0.00055	<0.001	0.00055	<0.001	0.00055	<0.001	0.00055	<0.001	<0.001	<0.001	0.0039	0.0025	0.0048	<0.001	
	05/06/19	82608/8011/504.1	<0.001	<0.001	0.019	0.00000071	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00039	0.00065	0.0019	<0.001	<0.001	0.052	0.095	<0.001	0.00057	<0.001	<0.001	<0.002	<0.003	<0.001	0.00054	<0.001	0.00054	<0.001	0.00054	<0.001	0.00054	<0.001	<0.001	<0.001	0.0036	0.0025	0.0048	<0.001
	02/20/19	82608/8011/504.1	<0.001	<0.001	0.03	0.00000062	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00065	<0.004	0.0017	<0.001	<0.001	0.095	0.095	<0.001	0.00015	<0.001	<0.001	<0.002	<0.003	<0.001	0.00054	<0.001	0.00054	<0.001	0.00054	<0.001	0.00054	<0.001	<0.001	<0.001	0.0055	0.0028	0.0061	<0.001
	11/15/18	82608/8011/504.1	<0.001	<0.001	0.027	0.00000092	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00045	<0.004	0.0017	<0.001	<0.001	0.069	0.069	<0.001	0.00028	<0.001	<0.001	<0.002	<0.003	<0.001	0.00048	<0.001	0.00048	<0.001	0.00048	<0.001	0.00048	<0.001	<0.001	<0.001	0.0045	0.0026	0.0048	<0.001
	08/17/18	82608/8011/504.1	<0.001	<0.001	0.026	0.000001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00044	<0.004	0.0016	<0.001	<0.001	0.073	0.073	<0.001	0.00028	<0.001	<0.001	<0.002	<0.003	<0.001	0.00048	<0.001	0.00048	<0.001	0.00048	<0.001	0.00048	<0.001	<0.001	<0.001	0.0045	0.0024	0.0051	<0.001
	05/06/18	82608/8011/504.1	<0.001	<0.001	0.029	0.00096	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00071	<0.004	0.0021	<0.001	<0.001	0.093	0.093	<0.001	0.00016	<0.001	<0.001	<0.002	<0.003	<0.001	0.00058	<0.001	0.00058	<0.001	0.00058	<0.001	0.00058	<0.001	<0.001	<0.001	0.0058	0.0029	0.006	<0.001
	02/05/18	82608	<0.001	<0.001	0.026	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00063	<0.004	0.0019	<0.001	<0.001	0.044	0.091	<0.001	0.00017	<0.001	<0.001	<0.002	<0.003	<0.001	0.00056	<0.001	0.00056	<0.001	0.00056	<0.001	0.00056	<0.001	<0.001	<0.001	0.0056	0.0029	0.0056	<0.001
	11/21/17	82608	<0.001	<0.001	0.022	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	<0.001	<0.004	0.0016	<0.001	<0.001	0.035	0.067	<0.001	0.00016	<0.001	<0.001	<0.002	<0.003	<0.001	0.00029	<0.001	0.00029	<0.001	0.00029	<0.001	<0.001	<0.001	0.0046	0.0024	0.0041	0.00029		
	09/25/17	82608	<0.001	<0.001	0.025	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	<0.001	<0.004	0.0017	<0.001	<0.001	0.041	0.08	<0.001	0.00018	<0.001	<0.001	<0.002	<0.003	<0.001	0.00035	<0.001	0.00035	<0.001	0.00035	<0.001	<0.001	<0.001	0.0053	0.0027	0.0048	<0.001		
	06/05/17	82608	<0.001	<0.001	0.022	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	<0.001	<0.004	0.0017	<0.001	<0.001	0.036	0.07	<0.001	0.00011	<0.001	<0.001	<0.002	<0.003	<0.001	0.00036	<0.001	0.00036	<0.001	0.00036	<0.001	<0.001	<0.001	0.0051	0.0023	0.0043	<0.001		
	03/07/17	82608	<0.001	<0.001	0.02	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00045	<0.004	0.0018	<0.001	<0.001	0.035	0.07	<0.001	0.00011	<0.001	<0.001	<0.002	<0.003	<0.001	0.00037	<0.001	0.00037	<0.001	0.00037	<0.001	<0.001	<0.001	0.0047	0.0022	0.0041	<0.001		
	10/31/16	82608	<0.001	<0.001	0.021	0.00035	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00041	<0.004	0.0016	<0.001	<0.001	0.031	0.057	<0.001	0.00032	<0.001	<0.001	<0.002	<0.003	<0.001	0.00037	<0.001	0.00037	<0.001	0.00037	<0.001	<0.001	<0.001	0.0048	0.0022	0.0037	<0.001		
	09/08/16	82608	<0.001	<0.001	0.024	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	0.00029	<0.004	0.0014	<0.001	<0.001	0.069	0.069	<0.001	0.00016	<0.001	<0.001	<0.002	<0.003	<0.001	0.00066	<0.001	0.00066	<0.001	0.00066	<0.001	<0.001	<0.001	0.0056	0.0024	0.0038	<0.001		
	06/09/16	82608	<0.001	<0.001	0.022	0.0000067	<0.002	<0.004	<0.004	&																														



### 8.17.5 MKTF WELLS

## Volatile Organic Compounds Analytical Results

[illegible]



8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS															PARAMETERS																										
WQCC 20 NMAC 6.2.3103 (DEC 2018)																																									
40 CFR 141.61 MCL																																									
NMED Tap Water (JUNE 2019)																																									
EPA RSL for Tap Water (NOVEMBER 2019)																																									
Well ID	DATE SAMPLED	METHOD	1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibromo methane (EDB) (mg/L)	Naphtha- lene (mg/L)	1-Methyl naphtha- lene (mg/L)	2-Methyl naphtha- lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro-form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCE (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2- Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2 pen- tanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4- Trichloro- benzene (mg/L)	1,1,1- Trichloro ethane (mg/L)	1,1,2- Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)				
MKTF-37	10/28/19	--	NE	NE	0.005	0.00005	0.03	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	0.07	0.6	0.075	0.025	0.005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	0.07	0.2	0.005	0.005	0.002
	08/23/19	--	NE	NE	0.005	0.00005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.07	NE	0.075	0.025	0.005	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	0.07	0.2	0.005	0.005	0.002
	05/14/19	82608/8011/504.1	<0.001	<0.001	<0.001	<0.0000094	<0.002	<0.004	<0.004	0.0064										0.028	0.079																				
	03/26/19	82608/8011/504.1	1.1	0.18	0.02	0.000082	0.86	0.18	0.25											0.028	0.076																				
	08/23/18	82608/8011/504.1	0.63	0.036	<0.01	0.00045	0.37	0.075	0.08											0.012	0.018																				
	03/01/17	82608	0.77	0.1	0.0083	<0.005	0.49	0.15	0.2				0.035							<0.005	0.016																				
	11/03/16	82608	0.47	0.07	0.0093	<0.01	0.38	0.066	0.081											0.0071	0.026	0.11																			
	08/19/15	82608	0.88	0.27	0.013	<0.02	1.5	0.15	0.3												0.018	0.1																			
	06/04/15	82608	0.95	0.33	0.011	<0.01	0.72	0.15	0.27												0.015	0.19																			
	03/17/15	82608	0.24	0.11	0.0091	<0.001	0.088	0.03	0.038												0.018	0.081																			
	11/21/14	82608	0.51	0.14	0.017	0.0015	0.35	0.047	0.084												0.034	0.21																			
	MKTF-38	12/03/19	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00052				<0.001	<0.001																				
		08/20/19	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00036				<0.001	<0.001																				
		06/27/19	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00111				<0.001	<0.001																				
		05/14/19	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.0064	<0.003	<0.01	<0.01	<0.001	0.00079				<0.001	<0.001																				
03/26/19		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.0064	<0.003	<0.01	<0.01	<0.001	0.0015				<0.001	<0.001																					
11/20/18		82608	<0.001	<0.001	<0.001	<0.001	0.00094	0.0013	<0.003	<0.003	<0.003	<0.003	<0.01	<0.001	0.00031				<0.001	<0.001																					
08/21/18		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.0037	<0.003	<0.003	<0.01	<0.001	<0.001				<0.001	<0.001																					
05/03/18		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
02/12/18		82608	0.00015	<0.001	<0.001	<0.001	<0.002	0.00053	0.00055	<0.01	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
11/30/17		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
09/28/17		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.0058	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
06/21/17		82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.0033	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
03/14/17		82608	<0.001	<0.001	<0.001	<0.001	0.00014	<0.004	<0.004	0.0017	<0.003	<0.01	<0.01	<0.001	0.00016				<0.001	<0.001																					
11/01/16		82608	0.00012	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00037				<0.001	<0.001																					
09/13/16		82608	<0.001	<0.001	<0.001	<0.001	<0.002	0.00079	0.00058	<0.01	0.0011	<0.01	<0.01	<0.001	0.00013				<0.001	<0.001																					
MKTF-39	06/08/16	82608	<0.001	<0.001	<0.001	<0.001	<0.002	0.00052	0.00043	<0.01	<0.003	<0.01	<0.01	<0.001	0.00039				<0.001	<0.001																					
	02/29/16	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00073				<0.001	<0.001																					
	02/29/16	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	0.00073				<0.001	<0.001																					
	11/09/15	82608	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01	<0.01	<0.001	<0.001				<0.001	<0.001																					
	08/24/15																																								



8.17.5 MKTF WELLS  
Volatile Organic Compounds Analytical Results

STANDARDS															PARAMETERS																								
WQCC 20 NMAC 6.2.3103 (DEC 2018)																																							
40 CFR 141.61 MCL																																							
NMED Tap Water (JUNE 2019)																																							
EPA RSL for Tap Water (NOVEMBER 2019)																																							
Well ID	DATE SAMPLED	METHOD	1,2,4- Trimethyl benzene (mg/L)	1,3,5- Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) (mg/L)	Naptha- lene (mg/L)	1-Methyl naphtha- lene (mg/L)	2-Methyl naphtha- lene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro-form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCE (mg/L)	1,2-Dichloro benzene (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,2-Dichloro propane (mg/L)	2- Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2 pen- tane (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetra-chloro ethene (PCE) (mg/L)	1,2,4- Trichloro- benzene (mg/L)	1,1,1- Trichloro ethane (mg/L)	1,1,2- Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)		
MKTF-41	10/23/19	82608/8011/504.1	0.00036	<0.001	0.003	<0.0000093	0.00033	0.00035	<0.004	<0.01	<0.006	<0.01	<0.01	<0.002	0.0002	<0.001	<0.001	<0.001	0.0031	0.0038	0.0039	0.005	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00063	<0.001	<0.001
	08/22/19	82608/8011/504.1	0.00051	<0.001	0.0033	<0.0000095	0.00063	0.00064	0.0007	0.0022	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0039	0.0053	0.0039	0.005	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00069	<0.001	<0.001
	05/07/19	82608/8011/504.1	0.00025	<0.001	0.0025	<0.0000094	<0.002	<0.004	0.0048	0.0048	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	0.0048	0.0034	0.005	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00051	<0.001	<0.001
	02/13/19	82608/8011/504.1	0.00053	<0.001	0.0037	<0.0000094	0.00092	0.00081	0.00081	0.0012	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0043	0.0073	0.0043	0.007	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00057	<0.001	<0.001
	11/15/18	82608/8011/504.1	0.00049	<0.001	0.0037	<0.0000094	0.00084	0.00082	0.00078	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0043	0.007	0.0043	0.007	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00061	<0.001	<0.001
	08/29/18	82608/8011/504.1	0.00032	<0.001	0.0032	<0.0000094	0.00073	0.00075	0.00074	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.0069	0.005	0.0073	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00062	<0.001	<0.001
	05/09/18	82608/8011/504.1	<0.001	<0.001	0.004	<0.0000095	<0.002	0.00057	0.00051	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0048	0.0073	0.0048	0.0073	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00079	<0.001	<0.001
	02/07/18	82608	0.00012	<0.001	0.0028	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	0.0053	0.0034	0.0053	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00057	<0.001	<0.001
	11/27/17	82608	<0.001	<0.001	0.0027	<0.001	0.0003	0.0004	0.00039	0.0034	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	0.0043	0.0034	0.0043	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00053	<0.001	<0.001
	09/25/17	82608	<0.001	<0.001	0.0027	<0.001	<0.002	<0.004	<0.004	0.0039	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0034	0.0048	0.0034	0.0048	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00047	<0.001	<0.001
	06/06/17	82608	<0.001	<0.001	0.0026	<0.001	<0.002	<0.004	<0.004	0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0036	0.0053	0.0036	0.0053	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00052	<0.001	<0.001
	03/07/17	82608	<0.001	<0.001	0.0024	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0027	0.0054	0.0027	0.0054	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00055	<0.001	<0.001
	10/31/16	82608	<0.001	<0.001	0.0024	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0025	0.0061	0.0025	0.0061	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001
	06/09/16	82608	<0.001	<0.001	0.0022	<0.00001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0026	0.0041	0.0026	0.0041	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001
02/24/16	82608	<0.001	<0.001	0.0019	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0031	0.0038	0.0031	0.0038	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001	
11/05/15	82608	<0.001	<0.001	0.0023	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0031	0.0038	0.0031	0.0038	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001	
08/21/15	82608	<0.001	<0.001	0.0013	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0018	0.0021	0.0018	0.0021	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001	
06/09/15	82608	<0.001	<0.001	0.0013	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0017	0.0019	0.0017	0.0019	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001	
03/12/15	82608	<0.001	<0.001	0.0013	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	0.0016	0.0016	0.0016	NE	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	NE	NE	0.005	<0.001	<0.001	0.00054	<0.001	<0.001	
11/18/14	82608	<0.001	<0.001	0.002	<0.002	<0.004	<0.004	<0.004	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	0.0036	0.0038	0.0036	0.0038	NE	<0.001	<0.0															







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## **SECTION 9 WELL DATA DTW/ DTB MEASUREMENTS**

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The 2019 Well Data DTB/DTW Measurements has been updated with survey information submitted to and approved by NMED per notification received “Approval with Modifications, Requirement to Resurvey Groundwater Monitoring Wells and Recovery Wells issued on September 26, 2012. Western was required to resurvey the monitoring wells due to discrepancies found in applicable standards ground level elevation, well casing elevation, well casing bottom elevation and stick up lengths. All monitoring wells were surveyed by a licensed professional surveyor, DePauli Engineering on June 7, 2011, April 2014, September 2014, December 2014, and January 2016.

The additional wells from the hydrocarbon seep (MKTF series) and the two new wells STP1-NW and STP1-SW were surveyed by Hammon Enterprises Inc., professional surveyor on September 15, 2014, December 16, 2014 and on December 16, 2014.

Table 9.1 presents the DTB/DTW measurements for the non-MKTF wells. Table 9.2 presents the DTB/DTW measurements for the MKTF wells. The data presents the 2019 measurements as well as historical measurements from at least four of the previous monitoring events.



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/10/03	BW-1A	06/24/05	2.00	6,874.10	6,876.68	2.58	6,839.06	40.00	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	10/24/06	2.00	6,874.10	6,876.68	2.58	6,839.06	40.00	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	12/13/07	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	07/30/08	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	07/06/09	2.00	6,874.10	6,876.68	2.58	6,839.06	35.04	ND	NA	37.85	6,838.83	NA	30 - 35
	BW-1A	07/14/10	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	10/28/11	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	08/23/12	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	09/03/13	2.00	6,874.10	6,876.68	2.58	6,839.06	37.62	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	09/08/14	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	08/10/15	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	09/08/16	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	09/13/17	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	08/15/18	2.00	6,883.17	6,885.12	1.95	6,847.50	42.61	ND	NA	DRY	DRY	NA	30 - 35
	BW-1A	08/14/19	2.00	6,883.17	6,885.12	1.95	6,847.50	42.61	ND	NA	DRY	DRY	NA	30 - 35
10/28/03	BW-1B	06/24/05	2.00	6,874.13	6,876.94	2.81	6,809.49	65.20	ND	NA	65.20	6,811.74	NA	54.6 - 64.6
	BW-1B	10/24/06	2.00	6,874.13	6,876.94	2.81	6,809.49	67.55	ND	NA	67.55	6,809.39	NA	54.6 - 64.6
	BW-1B	12/13/07	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	67.55	6,809.39	NA	54.6 - 64.6
	BW-1B	07/30/08	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	07/06/09	2.00	6,874.13	6,876.94	2.81	6,809.49	64.64	ND	NA	67.51	6,809.43	NA	54.6 - 64.6
	BW-1B	07/14/10	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	10/28/11	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	08/23/12	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	09/03/13	2.00	6,874.13	6,876.94	2.81	6,809.49	67.45	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	09/08/14	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	08/10/15	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/10/03	BW-1B	09/08/16	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	09/13/17	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	08/15/18	2.00	6,883.17	6,885.78	2.61	6,818.33	73.55	ND	NA	DRY	DRY	NA	54.6 - 64.6
	BW-1B	08/14/19	2.00	6,883.17	6,885.78	2.61	6,818.33	73.55	ND	NA	72.22	6,813.56	NA	54.6 - 64.6
	BW-1C	06/24/05	2.00	6,873.95	6,876.78	2.83	6,740.39	157.00	ND	NA	6.60	6,870.18	NA	125 -135
	BW-1C	10/24/06	2.00	6,873.95	6,876.78	2.83	6,740.39	157.00	ND	NA	7.55	6,869.23	NA	125 -135
	BW-1C	12/13/07	2.00	6,873.95	6,876.78	2.83	6,740.39	157.00	ND	NA	7.07	6,869.71	NA	125 -135
	BW-1C	07/30/08	2.00	6,873.95	6,876.78	2.83	6,740.39	136.39	ND	NA	6.84	6,869.94	NA	125 -135
	BW-1C	07/06/09	2.00	6,873.95	6,876.78	2.83	6,740.39	133.56	ND	NA	7.89	6,868.89	NA	125 -135
	BW-1C	07/14/10	2.00	6,873.95	6,876.78	2.83	6,740.39	136.39	ND	NA	7.19	6,869.59	NA	125 -135
	BW-1C	10/28/11	2.00	6,873.95	6,876.78	2.83	6,740.39	136.39	ND	NA	6.11	6,870.67	NA	125 -135
	BW-1C	08/24/12	2.00	6,873.95	6,876.78	2.83	6,740.39	136.39	ND	NA	7.30	6,869.48	NA	125 -135
	BW-1C	09/03/13	2.00	6,873.95	6,876.78	2.83	6,740.39	136.39	ND	NA	6.69	6,870.09	NA	125 -135
	BW-1C	09/10/14	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.97	6,872.71	NA	125 -135
	BW-1C	08/10/15	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.33	6,873.35	NA	125 -135
	BW-1C	09/08/16	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.55	6,873.13	NA	125 -135
11/10/03	BW-1C	09/13/17	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.60	6,873.08	NA	125 -135
	BW-1C	08/15/18	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.90	6,872.78	NA	125 -135
	BW-1C	08/14/19	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.39	6,873.29	NA	125 -135
	BW-2A	06/24/05	2.00	6,871.88	6,874.69	2.81	6,807.12	65.50	ND	NA	31.30	6,843.39	NA	55 - 65
	BW-2A	10/24/06	2.00	6,871.88	6,874.69	2.81	6,807.12	65.50	ND	NA	23.03	6,851.66	NA	55 - 65
	BW-2A	12/13/07	2.00	6,871.88	6,874.69	2.81	6,807.12	65.50	ND	NA	31.85	6,842.84	NA	55 - 65
	BW-2A	07/30/08	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	31.97	6,842.72	NA	55 - 65
	BW-2A	07/06/09	2.00	6,871.88	6,874.69	2.81	6,807.12	64.76	ND	NA	31.79	6,842.90	NA	55 - 65
	BW-2A	07/14/10	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.17	6,842.52	NA	55 - 65
	BW-2A	10/28/11	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.16	6,842.53	NA	55 - 65
	BW-2A	08/24/12	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.26	6,842.43	NA	55 - 65
	BW-2A	09/03/13	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.09	6,842.60	NA	55 - 65



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
10/28/03	BW-2A	09/09/14	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.25	6,842.44	NA	55 - 65
	BW-2A	08/10/15	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.00	6,842.69	NA	55 - 65
	BW-2A	09/08/16	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.29	6,842.40	NA	55 - 65
	BW-2A	09/13/17	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.44	6,842.25	NA	55 - 65
	BW-2A	08/15/18	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.34	6,842.35	NA	55 - 65
	BW-2A	08/14/19	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.26	6,842.43	NA	55 - 65
	BW-2B	6/24/05	2.00	6,871.66	6,874.50	2.84	6,782.24	90.50	ND	NA	28.00	6,846.50	NA	80 - 90
	BW-2B	10/24/06	2.00	6,871.66	6,874.50	2.84	6,782.24	90.50	ND	NA	27.78	6,846.72	NA	80 - 90
	BW-2B	12/13/07	2.00	6,871.66	6,874.50	2.84	6,782.24	90.50	ND	NA	27.64	6,846.86	NA	80 - 90
	BW-2B	07/30/08	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.91	6,846.59	NA	80 - 90
	BW-2B	07/06/09	2.00	6,871.66	6,874.50	2.84	6,782.24	89.42	ND	NA	27.93	6,846.57	NA	80 - 90
	BW-2B	07/14/10	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.13	6,846.37	NA	80 - 90
	BW-2B	10/28/11	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.56	6,846.94	NA	80 - 90
	BW-2B	08/24/12	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.83	6,846.67	NA	80 - 90
	BW-2B	09/03/13	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.92	6,846.58	NA	80 - 90
	BW-2B	09/09/14	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.15	6,846.35	NA	80 - 90
	BW-2B	08/10/15	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.00	6,846.50	NA	80 - 90
	BW-2B	09/08/16	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.84	6,846.66	NA	80 - 90
10/28/03	BW-2B	09/13/17	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.28	6,846.22	NA	80 - 90
	BW-2B	08/15/18	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.25	6,846.25	NA	80 - 90
	BW-2B	08/14/19	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.45	6,846.05	NA	80 - 90
	BW-2C	06/24/05	2.00	6,872.90	6,875.30	2.40	6,722.46	151.00	ND	NA	20.50	6,854.80	NA	139.5 - 149.5
	BW-2C	10/24/06	2.00	6,872.90	6,875.30	2.40	6,722.46	151.00	ND	NA	20.25	6,855.05	NA	139.5 - 149.5
	BW-2C	12/13/07	2.00	6,872.90	6,875.30	2.40	6,722.46	151.00	ND	NA	20.22	6,855.08	NA	139.5 - 149.5
	BW-2C	07/30/08	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.64	6,854.66	NA	139.5 - 149.5
	BW-2C	07/07/09	2.00	6,872.90	6,875.30	2.40	6,722.46	150.44	ND	NA	20.62	6,854.68	NA	139.5 - 149.5
	BW-2C	07/14/10	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.80	6,854.50	NA	139.5 - 149.5
	BW-2C	10/28/11	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.18	6,855.12	NA	139.5 - 149.5



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
06/15/04	BW-2C	08/24/12	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.35	6,854.95	NA	139.5 - 149.5
	BW-2C	09/03/13	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.39	6,854.91	NA	139.5 - 149.5
	BW-2C	09/10/14	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.70	6,854.60	NA	139.5 - 149.5
	BW-2C	08/10/15	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.56	6,854.74	NA	139.5 - 149.5
	BW-2C	09/08/16	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.63	6,854.67	NA	139.5 - 149.5
	BW-2C	09/13/17	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.90	6,854.40	NA	139.5 - 149.5
	BW-2C	08/15/18	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.85	6,854.45	NA	139.5 - 149.5
	BW-2C	08/14/19	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	21.20	6,854.10	NA	139.5 - 149.5
	BW-3A	06/24/05	2.00	6,875.94	6,878.39	2.45	6,826.04	50.00	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	10/24/06	2.00	6,875.94	6,878.39	2.45	6,826.04	52.60	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	12/13/07	2.00	6,875.94	6,878.39	2.45	6,826.04	52.60	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	07/30/08	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	07/07/09	2.00	6,875.94	6,878.39	2.45	6,826.04	49.90	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	07/14/10	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	10/28/11	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	08/23/12	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	09/03/13	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	09/08/14	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
10/15/03	BW-3A	08/10/15	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	09/08/16	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	09/13/17	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	08/15/18	2.00	6,875.94	6,878.39	2.45	6,826.04	52.38	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3A	08/14/19	2.00	6,875.94	6,878.39	2.45	6,826.04	52.38	ND	NA	DRY	DRY	NA	39.5 - 49.5
	BW-3B	06/24/05	2.00	6,876.16	6,878.59	2.43	6,809.19	75.00	ND	NA	32.20	6,846.39	NA	63 - 73
	BW-3B	10/24/06	2.00	6,876.16	6,878.59	2.43	6,809.19	75.00	ND	NA	32.78	6,845.81	NA	63 - 73
	BW-3B	12/13/07	2.00	6,876.16	6,878.59	2.43	6,809.19	75.00	ND	NA	32.74	6,845.85	NA	63 - 73
	BW-3B	07/31/08	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	32.73	6,845.86	NA	63 - 73
	BW-3B	07/07/09	2.00	6,876.16	6,878.59	2.43	6,809.19	66.97	ND	NA	32.90	6,845.69	NA	63 - 73



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
07/20/04	BW-3B	07/14/10	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	32.98	6,845.61	NA	63 - 73
	BW-3B	10/28/11	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	32.10	6,846.49	NA	63 - 73
	BW-3B	08/23/12	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.13	6,845.46	NA	63 - 73
	BW-3B	09/03/13	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.01	6,845.58	NA	63 - 73
	BW-3B	09/10/14	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.25	6,845.34	NA	63 - 73
	BW-3B	08/10/15	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.00	6,845.59	NA	63 - 73
	BW-3B	09/08/16	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.42	6,845.17	NA	63 - 73
	BW-3B	09/13/17	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.38	6,845.21	NA	63 - 73
	BW-3B	08/15/18	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.35	6,845.24	NA	63 - 73
	BW-3B	08/14/19	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.31	6,845.28	NA	63 - 73
	BW-3C	06/24/05	2.00	6,875.72	6,877.95	2.23	6,723.40	155.00	ND	NA	7.90	6,870.05	NA	144.5 - 154.5
	BW-3C	10/24/06	2.00	6,875.72	6,877.95	2.23	6,723.40	155.00	ND	NA	8.40	6,869.55	NA	144.5 - 154.5
	BW-3C	12/13/07	2.00	6,875.72	6,877.95	2.23	6,723.40	155.00	ND	NA	8.29	6,869.66	NA	144.5 - 154.5
	BW-3C	07/31/08	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.08	6,869.87	NA	144.5 - 154.5
	BW-3C	07/07/09	2.00	6,875.72	6,877.95	2.23	6,723.40	152.32	ND	NA	7.86	6,870.09	NA	144.5 - 154.5
	BW-3C	07/14/10	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.18	6,869.77	NA	144.5 - 154.5
	BW-3C	10/28/11	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.62	6,870.33	NA	144.5 - 154.5
	BW-3C	08/23/12	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.77	6,870.18	NA	144.5 - 154.5
	BW-3C	09/03/13	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.15	6,869.80	NA	144.5 - 154.5
	BW-3C	09/10/14	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.83	6,870.12	NA	144.5 - 154.5
	BW-3C	08/10/15	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.75	6,870.20	NA	144.5 - 154.5
	BW-3C	09/08/16	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.30	6,869.65	NA	144.5 - 154.5
	BW-3C	09/13/17	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.80	6,870.15	NA	144.5 - 154.5
	BW-3C	08/15/18	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.18	6,869.77	NA	144.5 - 154.5
	BW-3C	08/14/19	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.86	6,870.09	NA	144.5 - 154.5



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
06/29/17	BW-4A	09/21/17	2.00	6,870.67	6,873.18	2.51	6,909.47	38.80	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	12/08/17	2.00	6,870.67	6,873.18	2.51	6,908.97	38.30	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	02/26/18	2.00	6,870.67	6,873.18	2.51	6,909.47	38.80	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	04/25/18	2.00	6,870.67	6,873.18	2.51	6,909.47	38.80	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	08/15/18	2.00	6,870.67	6,873.18	2.51	6,909.47	38.80	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	11/07/18	2.00	6,870.67	6,873.18	2.51	6,908.97	38.30	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	03/27/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	05/21/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	08/23/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36
	BW-4A	10/16/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36
	BW-4B	09/21/17	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	31.58	6,841.65	NA	41 - 61
	BW-4B	12/08/17	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	37.95	6,835.28	NA	41 - 61
	BW-4B	02/26/18	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	38.43	6,834.80	NA	41 - 61
	BW-4B	04/25/18	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	43.60	6,829.63	NA	41 - 61
	BW-4B	08/15/18	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	39.05	6,834.18	NA	41 - 61
	BW-4B	11/13/18	2.00	6,870.62	6,873.23	2.61	6,934.12	63.50	ND	NA	44.87	6,828.36	NA	41 - 61
06/29/17	BW-4B	03/27/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	39.30	6,832.94	NA	41 - 61
	BW-4B	05/21/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	46.01	6,826.23	NA	41 - 61
	BW-4B	08/23/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	46.00	6,826.24	NA	41 - 61
	BW-4B	10/16/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	47.50	6,824.74	NA	41 - 61
	BW-5A	09/21/17	2.00	6,874.39	6,877.00	2.61	6,897.39	23.00	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	12/08/17	2.00	6,874.39	6,877.00	2.61	6,897.41	23.02	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	02/26/18	2.00	6,874.39	6,877.00	2.61	6,897.41	23.02	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	04/25/18	2.00	6,874.39	6,877.00	2.61	6,897.41	23.02	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	08/15/18	2.00	6,874.39	6,877.00	2.61	6,897.41	23.02	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	11/13/18	2.00	6,874.39	6,877.00	2.61	6,897.41	23.02	ND	NA	DRY	DRY	NA	10 - 20
	BW-5A	03/27/19	2.00	6,873.18	6,876.06	2.88	6,896.18	23.00	ND	NA	23.25	6,852.81	NA	10 - 20
	BW-5A	05/21/19	2.00	6,873.18	6,876.06	2.88	6,896.18	23.00	ND	NA	23.30	6,852.76	NA	10 - 20
	BW-5A	08/15/19	2.00	6,873.18	6,876.06	2.88	6,896.20	23.02	ND	NA	21.26	6,854.80	NA	10 - 20



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
06/29/17	BW-5A	10/16/19	2.00	6,873.18	6,876.06	2.88	6,896.48	23.30	ND	NA	23.25	6,852.81	NA	10 - 20
	BW-5B	09/21/17	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	8.65	6,868.17	NA	48 - 58
	BW-5B	12/08/17	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	9.00	6,867.82	NA	48 - 58
	BW-5B	02/26/18	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	10.28	6,866.54	NA	48 - 58
	BW-5B	04/25/18	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	9.75	6,867.07	NA	48 - 58
	BW-5B	08/15/18	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	10.04	6,866.78	NA	48 - 58
	BW-5B	11/13/18	2.00	6,874.32	6,876.82	2.50	6,935.77	61.45	ND	NA	10.57	6,866.25	NA	48 - 58
	BW-5B	03/27/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.38	6,866.46	NA	48 - 58
	BW-5B	05/21/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.20	6,866.64	NA	48 - 58
	BW-5B	08/15/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.67	6,866.17	NA	48 - 58
	BW-5B	10/16/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	10.27	6,865.57	NA	48 - 58



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
06/29/17	BW-5C	09/21/17	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.99	6,873.86	NA	64.3-74.30
	BW-5C	12/08/17	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.80	6,874.05	NA	64.3-74.30
	BW-5C	02/26/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.63	6,874.22	NA	64.3-74.30
	BW-5C	04/25/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.55	6,874.30	NA	64.3-74.30
	BW-5C	08/15/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	3.32	6,873.53	NA	64.3-74.30
	BW-5C	11/13/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	3.49	6,873.36	NA	64.3-74.30
	BW-5C	03/27/19	2.00	6,872.92	6,875.30	2.38	6,949.27	76.35	ND	NA	1.99	6,873.31	NA	64.3-74.30
	BW-5C	05/21/19	2.00	6,872.92	6,875.30	2.38	6,949.27	76.35	ND	NA	1.60	6,873.70	NA	64.3-74.30
	BW-5C	08/15/19	2.00	6,872.92	6,875.30	2.38	6,949.27	76.35	ND	NA	2.69	6,872.61	NA	64.3-74.30
	BW-5C	10/16/19	2.00	6,872.92	6,875.30	2.38	6,949.27	76.35	ND	NA	3.50	6,871.80	NA	64.3-74.30
07/08/04	GWM-1	03/09/06	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.25	6,892.36	NA	17.5 - 23.5
	GWM-1	05/26/06	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.16	6,892.45	NA	17.5 - 23.5
	GWM-1	07/26/06	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.72	6,891.89	NA	17.5 - 23.5
	GWM-1	10/13/06	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.61	6,892.00	NA	17.5 - 23.5
	GWM-1	02/08/07	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.21	6,892.40	NA	17.5 - 23.5
	GWM-1	04/30/07	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.21	6,892.40	NA	17.5 - 23.5
	GWM-1	07/10/07	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.63	6,891.98	NA	17.5 - 23.5
	GWM-1	09/14/07	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.82	6,891.79	NA	17.5 - 23.5
	GWM-1	11/26/07	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.56	6,892.05	NA	17.5 - 23.5
	GWM-1	02/18/08	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	19.91	6,892.70	NA	17.5 - 23.5
	GWM-1	05/21/08	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	19.47	6,893.14	NA	17.5 - 23.5
	GWM-1	09/10/08	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.24	6,892.37	NA	17.5 - 23.5
	GWM-1	11/03/08	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.55	6,892.06	NA	17.5 - 23.5
	GWM-1	02/11/09	2.00	6,910.22	6,912.61	2.39	6,886.41	23.81	ND	NA	19.81	6,892.80	NA	17.5 - 23.5
	GWM-1	05/04/09	2.00	6,910.22	6,912.61	2.39	6,886.41	23.81	ND	NA	19.56	6,893.05	NA	17.5 - 23.5
	GWM-1	08/10/09	2.00	6,910.22	6,912.61	2.39	6,886.41	23.81	ND	NA	20.32	6,892.29	NA	17.5 - 23.5
	GWM-1	10/27/09	2.00	6,910.22	6,912.61	2.39	6,886.41	23.81	ND	NA	20.57	6,892.04	NA	17.5 - 23.5
	GWM-1	03/03/10	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	19.81	6,892.80	NA	17.5 - 23.5
	GWM-1	06/03/10	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	18.14	6,894.47	NA	17.5 - 23.5



HISTORICAL DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (inch)	2011 Survey <sup>1</sup> Ground Level Elevations (ft)	2011 Survey <sup>1</sup> Well Casing Rim Elevations (ft)	Stick-up length (ft)	2011 Survey <sup>1</sup> Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH <sup>2</sup> Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation <sup>3</sup> (ft)	Corrected Water Table <sup>4</sup> Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
	GWM-1	09/16/10	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	17.90	6,894.71	NA	17.5 - 23.5
	GWM-1	11/02/10	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	18.41	6,894.20	NA	17.5 - 23.5
	GWM-1	02/16/11	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	15.99	6,896.62	NA	17.5 - 23.5
	GWM-1	06/15/11	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	15.82	6,896.79	NA	17.5 - 23.5
	GWM-1	09/26/11	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	16.42	6,896.19	NA	17.5 - 23.5
	GWM-1	12/14/11	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	16.08	6,896.53	NA	17.5 - 23.5
	GWM-1	03/20/12	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	14.49	6,898.12	NA	17.5 - 23.5
	GWM-1	06/12/12	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	15.56	6,897.05	NA	17.5 - 23.5
	GWM-1	08/21/12	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	16.29	6,896.32	NA	17.5 - 23.5
	GWM-1	11/28/12	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	14.50	6,898.11	NA	17.5 - 23.5
	GWM-1	03/18/13	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	16.87	6,895.74	NA	17.5 - 23.5
	GWM-1	06/12/13	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	17.45	6,895.16	NA	17.5 - 23.5



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/10/03	BW-1A	08/10/15	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35	Upper Sand
		09/08/16	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35	Upper Sand
		09/13/17	2.00	6,883.17	6,885.12	1.95	6,847.50	46.06	ND	NA	DRY	DRY	NA	30 - 35	Upper Sand
		08/15/18	2.00	6,883.17	6,885.12	1.95	6,847.50	42.61	ND	NA	DRY	DRY	NA	30 - 35	Upper Sand
		08/14/19	2.00	6,883.17	6,885.12	1.95	6,847.50	42.61	ND	NA	DRY	DRY	NA	30 - 35	Upper Sand
10/28/03	BW-1B	08/10/15	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6	Chinle/Alluvial Interface
		09/08/16	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6	Chinle/Alluvial Interface
		09/13/17	2.00	6,883.17	6,885.78	2.61	6,818.33	76.29	ND	NA	DRY	DRY	NA	54.6 - 64.6	Chinle/Alluvial Interface
		08/15/18	2.00	6,883.17	6,885.78	2.61	6,818.33	73.55	ND	NA	DRY	DRY	NA	54.6 - 64.6	Chinle/Alluvial Interface
		08/14/19	2.00	6,883.17	6,885.78	2.61	6,818.33	73.55	ND	NA	72.22	6,813.56	NA	54.6 - 64.6	Chinle/Alluvial Interface
11/10/03	BW-1C	08/10/15	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.33	6,873.35	NA	125 - 135	Sonsela Sandstone
		09/08/16	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.55	6,873.13	NA	125 - 135	Sonsela Sandstone
		09/13/17	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.60	6,873.08	NA	125 - 135	Sonsela Sandstone
		08/15/18	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.90	6,872.78	NA	125 - 135	Sonsela Sandstone
		08/14/19	2.00	6,883.17	6,885.68	2.51	6,749.29	145.29	ND	NA	12.39	6,873.29	NA	125 - 135	Sonsela Sandstone
11/10/03	BW-2A	08/10/15	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.00	6,842.69	NA	55 - 65	Upper Sand
		09/08/16	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.29	6,842.40	NA	55 - 65	Upper Sand
		09/13/17	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.44	6,842.25	NA	55 - 65	Upper Sand
		08/15/18	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.34	6,842.35	NA	55 - 65	Upper Sand
		08/14/19	2.00	6,871.88	6,874.69	2.81	6,807.12	67.57	ND	NA	32.26	6,842.43	NA	55 - 65	Upper Sand
10/28/03	BW-2B	08/10/15	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.00	6,846.50	NA	80 - 90	Chinle/Alluvial Interface
		09/08/16	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	27.84	6,846.66	NA	80 - 90	Chinle/Alluvial Interface
		09/13/17	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.28	6,846.22	NA	80 - 90	Chinle/Alluvial Interface
		08/15/18	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.25	6,846.25	NA	80 - 90	Chinle/Alluvial Interface
		08/14/19	2.00	6,871.66	6,874.50	2.84	6,782.24	92.26	ND	NA	28.45	6,846.05	NA	80 - 90	Chinle/Alluvial Interface
10/28/03	BW-2C	08/10/15	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.56	6,854.74	NA	139.5 - 149.5	Sonsela Sandstone
		09/08/16	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.63	6,854.67	NA	139.5 - 149.5	Sonsela Sandstone
		09/13/17	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.90	6,854.40	NA	139.5 - 149.5	Sonsela Sandstone
		08/15/18	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	20.85	6,854.45	NA	139.5 - 149.5	Sonsela Sandstone
		08/14/19	2.00	6,872.90	6,875.30	2.40	6,722.46	152.84	ND	NA	21.20	6,854.10	NA	139.5 - 149.5	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/15/04	BW-3A	08/10/15	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5	Upper Sand
		09/08/16	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5	Upper Sand
		09/13/17	2.00	6,875.94	6,878.39	2.45	6,826.04	52.35	ND	NA	DRY	DRY	NA	39.5 - 49.5	Upper Sand
		08/15/18	2.00	6,875.94	6,878.39	2.45	6,826.04	52.38	ND	NA	DRY	DRY	NA	39.5 - 49.5	Upper Sand
		08/14/19	2.00	6,875.94	6,878.39	2.45	6,826.04	52.38	ND	NA	DRY	DRY	NA	39.5 - 49.5	Upper Sand
10/15/03	BW-3B	08/10/15	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.00	6,845.59	NA	63 - 73	Chinle/Alluvial Interface
		09/08/16	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.42	6,845.17	NA	63 - 73	Chinle/Alluvial Interface
		09/13/17	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.38	6,845.21	NA	63 - 73	Chinle/Alluvial Interface
		08/15/18	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.35	6,845.24	NA	63 - 73	Chinle/Alluvial Interface
		08/14/19	2.00	6,876.16	6,878.59	2.43	6,809.19	69.40	ND	NA	33.31	6,845.28	NA	63 - 73	Chinle/Alluvial Interface
07/20/04	BW-3C	08/10/15	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.75	6,870.20	NA	144.5 - 154.5	Sonsela Sandstone
		09/08/16	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.30	6,869.65	NA	144.5 - 154.5	Sonsela Sandstone
		09/13/17	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.80	6,870.15	NA	144.5 - 154.5	Sonsela Sandstone
		08/15/18	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	8.18	6,869.77	NA	144.5 - 154.5	Sonsela Sandstone
		08/14/19	2.00	6,875.72	6,877.95	2.23	6,723.40	154.55	ND	NA	7.86	6,870.09	NA	144.5 - 154.5	Sonsela Sandstone
06/29/17	BW-4A	09/21/17	2.00	6,870.67	6,873.18	2.51	6,723.40	38.80	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		12/08/17	2.00	6,870.67	6,873.18	2.51	6,723.40	38.30	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		02/26/18	2.00	6,870.67	6,873.18	2.51	6,723.40	38.80	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		04/25/18	2.00	6,870.67	6,873.18	2.51	6,723.40	38.80	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		08/15/18	2.00	6,870.67	6,873.18	2.51	6,723.40	38.80	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		11/07/18	2.00	6,870.67	6,873.18	2.51	6,723.40	38.30	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		03/27/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		05/21/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		08/23/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand
		10/16/19	2.00	6,869.28	6,872.20	2.92	6,907.60	38.32	ND	NA	DRY	DRY	NA	21 - 36	Upper Sand



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/29/17	BW-4B	09/21/17	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	31.58	6,841.65	NA	41 - 61	Chinle/Alluvial Interface
		12/08/17	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	37.95	6,835.28	NA	41 - 61	Chinle/Alluvial Interface
		02/26/18	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	38.43	6,834.80	NA	41 - 61	Chinle/Alluvial Interface
		04/25/18	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	43.60	6,829.63	NA	41 - 61	Chinle/Alluvial Interface
		08/15/18	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	39.05	6,834.18	NA	41 - 61	Chinle/Alluvial Interface
		11/13/18	2.00	6,870.62	6,873.23	2.61	6,723.40	63.50	ND	NA	44.87	6,828.36	NA	41 - 61	Chinle/Alluvial Interface
		03/27/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	39.30	6,832.94	NA	41 - 61	Chinle/Alluvial Interface
		05/21/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	46.01	6,826.23	NA	41 - 61	Chinle/Alluvial Interface
		08/23/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	46.00	6,826.24	NA	41 - 61	Chinle/Alluvial Interface
		10/16/19	2.00	6,869.45	6,872.24	2.79	6,932.95	63.50	ND	NA	47.50	6,824.74	NA	41 - 61	Chinle/Alluvial Interface
06/29/17	BW-5A	09/21/17	2.00	6,874.39	6,877.00	2.61	6,723.40	23.00	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		12/08/17	2.00	6,874.39	6,877.00	2.61	6,723.40	23.02	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		02/26/18	2.00	6,874.39	6,877.00	2.61	6,723.40	23.02	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		04/25/18	2.00	6,874.39	6,877.00	2.61	6,723.40	23.02	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		08/15/18	2.00	6,874.39	6,877.00	2.61	6,723.40	23.02	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		11/13/18	2.00	6,874.39	6,877.00	2.61	6,723.40	23.02	ND	NA	DRY	DRY	NA	10 - 20	Upper Sand
		03/27/19	2.00	6,873.18	6,876.06	2.88	6,896.18	23.00	ND	NA	23.25	6,852.81	NA	10 - 20	Upper Sand
		05/21/19	2.00	6,873.18	6,876.06	2.88	6,896.18	23.00	ND	NA	23.30	6,852.76	NA	10 - 20	Upper Sand
		08/15/19	2.00	6,873.18	6,876.06	2.88	6,896.20	23.02	ND	NA	21.26	6,854.80	NA	10 - 20	Upper Sand
		10/16/19	2.00	6,873.18	6,876.06	2.88	6,896.48	23.30	ND	NA	23.25	6,852.81	NA	10 - 20	Upper Sand
06/29/17	BW-5B	09/21/17	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	8.65	6,868.17	NA	48 - 58	Chinle/Alluvial Interface
		12/08/17	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	9.00	6,867.82	NA	48 - 58	Chinle/Alluvial Interface
		02/26/18	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	10.28	6,866.54	NA	48 - 58	Chinle/Alluvial Interface
		04/25/18	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	9.75	6,867.07	NA	48 - 58	Chinle/Alluvial Interface
		08/15/18	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	10.04	6,866.78	NA	48 - 58	Chinle/Alluvial Interface
		11/13/18	2.00	6,874.32	6,876.82	2.50	6,723.40	61.45	ND	NA	10.57	6,866.25	NA	48 - 58	Chinle/Alluvial Interface
		03/27/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.38	6,866.46	NA	48 - 58	Chinle/Alluvial Interface
		05/21/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.20	6,866.64	NA	48 - 58	Chinle/Alluvial Interface
		08/15/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	9.67	6,866.17	NA	48 - 58	Chinle/Alluvial Interface
		10/16/19	2.00	6,873.30	6,875.84	2.54	6,934.75	61.45	ND	NA	10.27	6,865.57	NA	48 - 58	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/29/17	BW-5C	09/21/17	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.99	6,873.86	NA	64.3-74.30	Sonsela Sandstone
		12/08/17	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.80	6,874.05	NA	64.3-74.30	Sonsela Sandstone
		02/26/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.63	6,874.22	NA	64.3-74.30	Sonsela Sandstone
		04/25/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	2.55	6,874.30	NA	64.3-74.30	Sonsela Sandstone
		08/15/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	3.32	6,873.53	NA	64.3-74.30	Sonsela Sandstone
		11/13/18	2.00	6,874.22	6,876.85	2.63	6,950.57	76.35	ND	NA	3.49	6,873.36	NA	64.3-74.30	Sonsela Sandstone
		03/27/19	2.00	6,872.92	6,875.93	3.01	6,949.27	76.35	ND	NA	1.99	6,873.94	NA	64.3-74.30	Sonsela Sandstone
		05/21/19	2.00	6,872.92	6,875.93	3.01	6,949.27	76.35	ND	NA	1.60	6,874.33	NA	64.3-74.30	Sonsela Sandstone
		08/15/19	2.00	6,872.92	6,875.93	3.01	6,949.27	76.35	ND	NA	2.69	6,873.24	NA	64.3-74.30	Sonsela Sandstone
		10/16/19	2.00	6,872.92	6,875.93	3.01	6,949.27	76.35	ND	NA	3.50	6,872.43	NA	64.3-74.30	Sonsela Sandstone
07/08/04		03/10/15	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.99	6,891.62	NA	17.5 - 23.5	Chinle/Alluvial Interface
		06/02/15	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	ND	NA	20.92	6,891.69	NA	17.5 - 23.5	Chinle/Alluvial Interface
	GWM-1	08/11/15	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.40	NA	NA	NA	NA	17.5 - 23.5	Chinle/Alluvial Interface
		08/24/15	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.00	0.45	21.45	6,891.16	6891.52	17.5 - 23.5	Chinle/Alluvial Interface
		10/29/15	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.13	0.34	21.47	6,891.14	6891.41	17.5 - 23.5	Chinle/Alluvial Interface
		03/01/16	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	22.84	0.04	22.88	6,889.73	6889.76	17.5 - 23.5	Chinle/Alluvial Interface
		06/07/16	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.36	0.03	21.39	6,891.22	6891.24	17.5 - 23.5	Chinle/Alluvial Interface
		09/13/16	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.29	NA	NA	NA	NA	17.5 - 23.5	Chinle/Alluvial Interface
		11/14/16	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.50	0.02	21.52	6,891.09	6,891.11	17.5 - 23.5	Chinle/Alluvial Interface
		03/16/17	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.74	0.30	22.04	6,890.57	6890.81	17.5 - 23.5	Chinle/Alluvial Interface
		06/02/17	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.54	0.44	21.98	6,890.63	6890.98	17.5 - 23.5	Chinle/Alluvial Interface
		09/08/17	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.49	0.22	21.71	6,890.90	6891.08	17.5 - 23.5	Chinle/Alluvial Interface
		12/04/17	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	19.70	1.00	20.70	6,891.91	6892.71	17.5 - 23.5	Chinle/Alluvial Interface
		02/12/18	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.83	0.37	22.20	6,890.41	6890.71	17.5 - 23.5	Chinle/Alluvial Interface
		04/26/18	2.00	6,910.22	6,912.61	2.39	6,886.41	26.38	21.85	0.40	22.25	6,890.36	6890.68	17.5 - 23.5	Chinle/Alluvial Interface
		08/15/18	2.00	6,910.22	6,912.61	2.39	6,886.41	26.42	21.50	0.04	21.54	6,891.07	6891.10	17.5 - 23.5	Chinle/Alluvial Interface
		11/19/18	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.42	0.13	21.55	6,891.06	6891.16	17.5 - 23.5	Chinle/Alluvial Interface
		03/28/19	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.59	0.48	22.07	6,890.54	6890.92	17.5 - 23.5	Chinle/Alluvial Interface
		05/08/19	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	21.32	0.29	21.61	6,891.00	6891.23	17.5 - 23.5	Chinle/Alluvial Interface
		08/06/19	2.00	6,910.22	6,912.61	2.39	6,886.41	26.42	20.77	0.13	20.90	6,891.71	6891.81	17.5 - 23.5	Chinle/Alluvial Interface
		10/21/19	2.00	6,910.22	6,912.61	2.39	6,886.41	26.20	20.64	0.19	20.83	6,891.78	6891.93	17.5 - 23.5	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
09/25/05	GWM-2	03/10/15	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		06/02/15	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		08/11/15	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		10/29/15	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		10/29/15	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		03/01/16	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		06/07/16	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		09/13/16	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		11/14/16	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		03/16/17	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		06/02/17	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		09/05/17	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		12/04/17	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		02/12/18	2.00	6,910.32	6,913.09	2.77	6,894.28	19.05	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		04/26/18	2.00	6,910.32	6,913.09	2.77	6,894.28	19.01	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		08/15/18	2.00	6,910.32	6,913.09	2.77	6,894.28	19.04	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		11/19/18	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		03/28/19	2.00	6,910.32	6,913.09	2.77	6,894.28	19.09	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		05/08/19	2.00	6,910.32	6,913.09	2.77	6,894.28	19.09	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		08/06/19	2.00	6,910.32	6,913.09	2.77	6,894.28	19.04	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface
		10/19/19	2.00	6,910.32	6,913.09	2.77	6,894.28	18.81	ND	NA	DRY	NA	NA	3.2 - 16.2	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
09/25/05	GWM-3	03/10/15	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		06/02/15	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		08/11/15	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		10/29/15	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		03/01/16	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		06/07/16	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		09/13/16	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		11/14/16	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		03/16/17	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		06/02/17	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		09/05/17	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		12/04/17	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		02/12/18	2.00	6,907.35	6,910.25	2.90	6,892.45	18.05	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		04/26/18	2.00	6,907.35	6,910.25	2.90	6,892.45	18.02	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		08/15/18	2.00	6,907.35	6,910.25	2.90	6,892.45	18.04	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		11/19/18	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	NA	NA	3 - 15	Chinle/Alluvial Interface
		03/28/19	2.00	6,907.35	6,910.25	2.90	6,892.45	18.06	ND	NA	DRY	DRY	NA	3 - 15	Chinle/Alluvial Interface
		05/08/19	2.00	6,907.35	6,910.25	2.90	6,892.45	18.06	ND	NA	DRY	DRY	NA	3 - 15	Chinle/Alluvial Interface
		08/06/19	2.00	6,907.35	6,910.25	2.90	6,892.45	18.04	ND	NA	DRY	DRY	NA	3 - 15	Chinle/Alluvial Interface
		10/19/19	2.00	6,907.35	6,910.25	2.90	6,892.45	17.80	ND	NA	DRY	DRY	NA	3 - 15	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/11/07	KA-3	03/10/15	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.24	6,904.28	NA	15 - 25	Chinle/Alluvial Interface
		06/02/15	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.59	6,903.93	NA	15 - 25	Chinle/Alluvial Interface
		08/10/15	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.78	6,903.74	NA	15 - 25	Chinle/Alluvial Interface
		10/28/15	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.20	6,904.32	NA	15 - 25	Chinle/Alluvial Interface
		03/03/16	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	7.68	6,904.84	NA	15 - 25	Chinle/Alluvial Interface
		06/06/16	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	7.42	6,905.10	NA	15 - 25	Chinle/Alluvial Interface
		09/01/16	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.13	6,904.39	NA	15 - 25	Chinle/Alluvial Interface
		11/14/16	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.28	6,904.24	NA	15 - 25	Chinle/Alluvial Interface
		02/21/17	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	7.37	6,905.15	NA	15 - 25	Chinle/Alluvial Interface
		06/01/17	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.22	6,904.30	NA	15 - 25	Chinle/Alluvial Interface
		09/05/17	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	8.21	6,904.31	NA	15 - 25	Chinle/Alluvial Interface
		12/04/17	2.00	6,913.29	6,912.52	-0.77	6,889.32	24.28	ND	NA	8.00	6,904.52	NA	15 - 25	Chinle/Alluvial Interface
		02/09/18	2.00	6,913.29	6,912.52	-0.77	6,889.32	24.30	ND	NA	8.40	6,904.12	NA	15 - 25	Chinle/Alluvial Interface
		04/26/18	2.00	6,913.29	6,912.52	-0.77	6,889.32	24.24	ND	NA	8.50	6,904.02	NA	15 - 25	Chinle/Alluvial Interface
		08/15/18	2.00	6,913.29	6,912.52	-0.77	6,889.32	NM	NM	NA	NM	NA	NA	15 - 25	Chinle/Alluvial Interface
		11/08/18	2.00	6,913.29	6,912.52	-0.77	6,889.32	NM	NM	NA	NM	NA	NA	15 - 25	Chinle/Alluvial Interface
		03/28/19	2.00	6,913.29	6,912.52	-0.77	6,889.32	NM	NM	NA	NM	NA	NA	15 - 25	Chinle/Alluvial Interface
		05/28/19	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	9.95	6,902.57	NA	15 - 25	Chinle/Alluvial Interface
		08/22/19	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	9.05	6,903.47	NA	15 - 25	Chinle/Alluvial Interface
		10/21/19	2.00	6,913.29	6,912.52	-0.77	6,889.32	23.20	ND	NA	9.16	6,903.36	NA	15 - 25	Chinle/Alluvial Interface
		08/10/15	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	6.90	6,871.22	NA	117.72 - 127.72	Sonsela Sandstone
		10/14/81	MW-1												
		09/07/16	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	7.01	6,871.11	NA	117.72 - 127.72	Sonsela Sandstone
		09/20/17	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	7.02	6,871.10	NA	117.72 - 127.72	Sonsela Sandstone
		08/15/18	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	7.75	6,870.37	NA	117.72 - 127.72	Sonsela Sandstone
		12/05/18	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	7.36	6,870.76	NA	117.72 - 127.72	Sonsela Sandstone
		08/12/19	5.00	6,876.63	6,878.12	1.49	6,747.29	130.83	ND	NA	6.94	6,871.18	NA	117.72 - 127.72	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/15/81	MW-2	08/10/15	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	9.13	6,871.17	NA	112 - 122	Sonsela Sandstone
		09/07/16	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	14.10	6,866.20	NA	112 - 122	Sonsela Sandstone
		09/20/17	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	15.64	6,864.66	NA	112 - 122	Sonsela Sandstone
		08/15/18	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	9.35	6,870.95	NA	112 - 122	Sonsela Sandstone
		12/05/18	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	16.63	6,863.67	NA	112 - 122	Sonsela Sandstone
		08/13/19	5.00	6,878.39	6,880.30	1.91	6,742.82	137.48	ND	NA	9.00	6,871.30	NA	112 - 122	Sonsela Sandstone
10/16/81	MW-4	08/10/15	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.30	6,874.33	NA	101 - 121	Sonsela Sandstone
		09/07/16	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.38	6,874.25	NA	101 - 121	Sonsela Sandstone
		09/21/17	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.56	6,874.07	NA	101 - 121	Sonsela Sandstone
		08/15/18	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.71	6,873.92	NA	101 - 121	Sonsela Sandstone
		12/05/18	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.83	6,873.80	NA	101 - 121	Sonsela Sandstone
		08/13/19	5.00	6,879.89	6,881.63	1.74	6,759.91	121.72	ND	NA	7.00	6,874.63	NA	101 - 121	Sonsela Sandstone
07/21/86	MW-5	08/10/15	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	11.20	6,871.63	NA	115 - 125	Sonsela Sandstone
		09/07/16	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	13.50	6,869.33	NA	115 - 125	Sonsela Sandstone
		09/11/17	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	11.22	6,871.61	NA	115 - 125	Sonsela Sandstone
		08/15/18	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	11.51	6,871.32	NA	115 - 125	Sonsela Sandstone
		12/06/18	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	16.80	6,866.03	NA	115 - 125	Sonsela Sandstone
		08/14/19	4.00	6,880.20	6,882.83	2.63	6,752.00	130.83	ND	NA	11.05	6,871.78	NA	115 - 125	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/14/08	NAPIS-1	03/10/15	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.90	6,906.96	NA	3.7 - 13.7	Chinle/Alluvial Interface
		06/02/15	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	7.00	6,906.86	NA	3.7 - 13.7	Chinle/Alluvial Interface
		08/10/15	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	7.00	6,906.86	NA	3.7 - 13.7	Chinle/Alluvial Interface
		10/28/15	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	7.20	6,906.66	NA	3.7 - 13.7	Chinle/Alluvial Interface
		03/01/16	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.65	6,907.21	NA	3.7 - 13.7	Chinle/Alluvial Interface
		06/07/16	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.64	6,907.22	NA	3.7 - 13.7	Chinle/Alluvial Interface
		09/01/16	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.99	6,906.87	NA	3.7 - 13.7	Chinle/Alluvial Interface
		11/14/16	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.82	6,907.04	NA	3.7 - 13.7	Chinle/Alluvial Interface
		02/21/17	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.70	6,907.16	NA	3.7 - 13.7	Chinle/Alluvial Interface
		06/02/17	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	ND	NA	6.85	6,907.01	NA	3.7 - 13.7	Chinle/Alluvial Interface
		09/05/17	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	6.32	0.86	7.18	6,906.68	6907.37	3.7 - 13.7	Chinle/Alluvial Interface
		12/04/17	2.00	6,913.62	6,913.86	0.24	6,900.33	13.75	6.20	0.65	6.85	6,907.01	6907.53	3.7 - 13.7	Chinle/Alluvial Interface
		02/12/18	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	6.15	1.95	8.10	6,905.76	6907.32	3.7 - 13.7	Chinle/Alluvial Interface
		04/25/18	2.00	6,913.62	6,913.86	0.24	6,900.33	13.76	6.58	1.24	7.82	6,906.04	6907.03	3.7 - 13.7	Chinle/Alluvial Interface
		08/15/18	2.00	6,913.62	6,913.86	0.24	6,900.33	NM	NM	NA	NM	NA	NA	3.7 - 13.7	Chinle/Alluvial Interface
		11/08/18	2.00	6,913.62	6,913.86	0.24	6,900.33	NM	NM	NA	NM	NA	NA	3.7 - 13.7	Chinle/Alluvial Interface
		03/28/19	2.00	6,913.62	6,913.86	0.24	6,900.33	NM	NM	NA	NM	NA	NA	3.7 - 13.7	Chinle/Alluvial Interface
		05/28/19	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	7.72	0.16	7.88	6,905.98	6906.11	3.7 - 13.7	Chinle/Alluvial Interface
		08/22/19	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	7.45	0.08	7.53	6,906.33	6906.39	3.7 - 13.7	Chinle/Alluvial Interface
		10/21/19	2.00	6,913.62	6,913.86	0.24	6,900.33	13.53	7.66	0.20	7.86	6,906.00	6906.16	3.7 - 13.7	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/14/08	NAPIS-2	03/10/15	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.44	6,904.21	NA	4.2 - 14.2	Chinle/Alluvial Interface
		06/02/15	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.54	6,904.11	NA	4.2 - 14.2	Chinle/Alluvial Interface
		08/10/15	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.40	6,904.25	NA	4.2 - 14.2	Chinle/Alluvial Interface
		10/28/15	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.32	6,904.33	NA	4.2 - 14.2	Chinle/Alluvial Interface
		03/01/16	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	7.65	6,905.00	NA	4.2 - 14.2	Chinle/Alluvial Interface
		06/07/16	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	6.40	6,906.25	NA	4.2 - 14.2	Chinle/Alluvial Interface
		09/01/16	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.84	6,903.81	NA	4.2 - 14.2	Chinle/Alluvial Interface
		11/14/16	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.20	6,904.45	NA	4.2 - 14.2	Chinle/Alluvial Interface
		02/21/17	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	7.89	6,904.76	NA	4.2 - 14.2	Chinle/Alluvial Interface
		06/01/17	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.35	6,904.30	NA	4.2 - 14.2	Chinle/Alluvial Interface
		09/05/17	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	8.32	6,904.33	NA	4.2 - 14.2	Chinle/Alluvial Interface
		12/04/17	2.00	6,913.40	6,912.65	-0.75	6,899.04	14.60	ND	NA	7.98	6,904.67	NA	4.2 - 14.2	Chinle/Alluvial Interface
		02/09/18	2.00	6,913.40	6,912.65	-0.75	6,899.04	14.60	ND	NA	8.25	6,904.40	NA	4.2 - 14.2	Chinle/Alluvial Interface
		04/26/18	2.00	6,913.40	6,912.65	-0.75	6,899.04	14.52	ND	NA	8.58	6,904.07	NA	4.2 - 14.2	Chinle/Alluvial Interface
		08/15/18	2.00	6,913.40	6,912.65	-0.75	6,899.04	NM	NM	NA	NM	NA	NA	4.2 - 14.2	Chinle/Alluvial Interface
		11/08/18	2.00	6,913.40	6,912.65	-0.75	6,899.04	NM	NM	NA	NM	NA	NA	4.2 - 14.2	Chinle/Alluvial Interface
		03/28/19	2.00	6,913.40	6,912.65	-0.75	6,899.04	NM	NM	NA	NM	NA	NA	4.2 - 14.2	Chinle/Alluvial Interface
		05/28/19	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	9.54	6,903.11	NA	4.2 - 14.2	Chinle/Alluvial Interface
		08/22/19	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	9.15	6,903.50	NA	4.2 - 14.2	Chinle/Alluvial Interface
		10/21/19	2.00	6,913.40	6,912.65	-0.75	6,899.04	13.61	ND	NA	9.40	6,903.25	NA	4.2 - 14.2	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/14/08	NAPIS-3	03/10/15	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.59	6,903.17	NA	25.4 - 30-4	Chinle/Alluvial Interface
		06/02/15	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.10	6,903.66	NA	25.4 - 30-4	Chinle/Alluvial Interface
		08/10/15	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	8.49	6,904.27	NA	25.4 - 30-4	Chinle/Alluvial Interface
		10/28/15	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.22	6,903.54	NA	25.4 - 30-4	Chinle/Alluvial Interface
		03/01/16	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	8.55	6,904.21	NA	25.4 - 30-4	Chinle/Alluvial Interface
		06/07/16	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	7.72	6,905.04	NA	25.4 - 30-4	Chinle/Alluvial Interface
		09/01/16	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.10	6,903.66	NA	25.4 - 30-4	Chinle/Alluvial Interface
		11/14/16	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.11	6,903.65	NA	25.4 - 30-4	Chinle/Alluvial Interface
		02/21/17	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.20	6,903.56	NA	25.4 - 30-4	Chinle/Alluvial Interface
		06/01/17	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	10.20	6,902.56	NA	25.4 - 30-4	Chinle/Alluvial Interface
		09/08/17	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	9.10	6,903.66	NA	25.4 - 30-4	Chinle/Alluvial Interface
		12/14/17	2.00	6,913.38	6,912.76	-0.62	6,882.34	31.58	ND	NA	9.00	6,903.76	NA	25.4 - 30-4	Chinle/Alluvial Interface
		02/09/18	2.00	6,913.38	6,912.76	-0.62	6,882.34	31.60	ND	NA	9.70	6,903.06	NA	25.4 - 30-4	Chinle/Alluvial Interface
		04/26/18	2.00	6,913.38	6,912.76	-0.62	6,882.34	31.51	ND	NA	9.60	6,903.16	NA	25.4 - 30-4	Chinle/Alluvial Interface
		08/15/18	2.00	6,913.38	6,912.76	-0.62	6,882.34	NM	NM	NA	NM	NA	NA	25.4 - 30-4	Chinle/Alluvial Interface
		11/08/18	2.00	6,913.38	6,912.76	-0.62	6,882.34	NM	NM	NA	NM	NA	NA	25.4 - 30-4	Chinle/Alluvial Interface
		03/28/19	2.00	6,913.38	6,912.76	-0.62	6,882.34	NM	NM	NA	NM	NA	NA	25.4 - 30-4	Chinle/Alluvial Interface
		05/28/19	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	10.57	6,902.19	NA	25.4 - 30-4	Chinle/Alluvial Interface
		08/22/19	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	10.18	6,902.58	NA	25.4 - 30-4	Chinle/Alluvial Interface
		10/21/19	2.00	6,913.38	6,912.76	-0.62	6,882.34	30.42	ND	NA	10.02	6,902.74	NA	25.4 - 30-4	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
07/17/12	OAPIS-1	03/10/15	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.84	6,904.89	NA	16 - 26	Chinle/Alluvial Interface
		06/02/15	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	12.01	6,904.72	NA	16 - 26	Chinle/Alluvial Interface
		08/10/15	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.33	6,905.40	NA	16 - 26	Chinle/Alluvial Interface
		10/29/15	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.02	6,905.71	NA	16 - 26	Chinle/Alluvial Interface
		03/01/16	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.86	6,904.87	NA	16 - 26	Chinle/Alluvial Interface
		06/07/16	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.50	6,905.23	NA	16 - 26	Chinle/Alluvial Interface
		09/01/16	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.32	6,905.41	NA	16 - 26	Chinle/Alluvial Interface
		11/14/16	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.44	6,905.29	NA	16 - 26	Chinle/Alluvial Interface
		02/21/17	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.60	6,905.13	NA	16 - 26	Chinle/Alluvial Interface
		06/01/17	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.46	6,905.27	NA	16 - 26	Chinle/Alluvial Interface
		09/05/17	2.00	6,914.37	6,916.73	2.36	6,888.37	28.30	ND	NA	11.09	6,905.64	NA	16 - 26	Chinle/Alluvial Interface
		12/04/17	2.00	6,914.37	6,916.73	2.36	6,888.37	27.78	ND	NA	11.88	6,904.85	NA	16 - 26	Chinle/Alluvial Interface
		02/09/18	2.00	6,914.37	6,916.73	2.36	6,888.37	27.78	ND	NA	12.60	6,904.13	NA	16 - 26	Chinle/Alluvial Interface
		04/26/18	2.00	6,914.37	6,916.73	2.36	6,888.37	27.75	ND	NA	12.42	6,904.31	NA	16 - 26	Chinle/Alluvial Interface
		08/15/18	2.00	6,914.37	6,916.73	2.36	6,888.37	27.86	ND	NA	11.60	6,905.13	NA	16 - 26	Chinle/Alluvial Interface
		11/19/18	2.00	6,914.37	6,916.73	2.36	6,888.37	27.78	ND	NA	11.89	6,904.84	NA	16 - 26	Chinle/Alluvial Interface
		03/28/19	2.00	6,914.37	6,916.73	2.36	6,888.37	26.00	ND	NA	11.43	6,905.30	NA	16 - 26	Chinle/Alluvial Interface
		05/08/19	2.00	6,914.37	6,916.73	2.36	6,888.37	26.00	ND	NA	12.09	6,904.64	NA	16 - 26	Chinle/Alluvial Interface
		08/22/19	2.00	6,914.37	6,916.73	2.36	6,888.37	27.86	ND	NA	11.09	6,905.64	NA	16 - 26	Chinle/Alluvial Interface
		10/21/19	2.00	6,914.37	6,916.73	2.36	6,888.37	27.78	ND	NA	11.44	6,905.29	NA	16 - 26	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
01/05/81	OW-1	03/09/15	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		06/03/15	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		08/12/15	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		10/28/15	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		03/03/16	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		06/06/16	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		09/06/16	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	0.00	6,866.62	NA	89.3 - 99.3	Sonsela Sandstone
		11/15/16	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.72	6,864.90	NA	89.3 - 99.3	Sonsela Sandstone
		02/27/17	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.71	6,864.91	NA	89.3 - 99.3	Sonsela Sandstone
		05/31/17	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.77	6,864.85	NA	89.3 - 99.3	Sonsela Sandstone
		09/06/17	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.70	6,864.92	NA	89.3 - 99.3	Sonsela Sandstone
		12/08/17	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.71	6,864.91	NA	89.3 - 99.3	Sonsela Sandstone
		02/27/18	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.45	6,865.17	NA	89.3 - 99.3	Sonsela Sandstone
		04/25/18	4.00	6,866.32	6,866.62	0.30	6,772.07	94.54	ND	NA	1.80	6,864.82	NA	89.3 - 99.3	Sonsela Sandstone
		08/14/18	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.80	6,864.82	NA	89.3 - 99.3	Sonsela Sandstone
		11/07/18	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.33	6,865.29	NA	89.3 - 99.3	Sonsela Sandstone
		03/27/19	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.69	6,864.93	NA	89.3 - 99.3	Sonsela Sandstone
		05/21/19	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.73	6,864.89	NA	89.3 - 99.3	Sonsela Sandstone
		08/15/19	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.37	6,865.25	NA	89.3 - 99.3	Sonsela Sandstone
		10/16/19	4.00	6,866.32	6,866.62	0.30	6,772.07	94.55	ND	NA	1.45	6,865.17	NA	89.3 - 99.3	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/25/80	OW-10	03/09/15	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.96	6,873.95	NA	40 - 60	Sonsela Sandstone
		06/03/15	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.00	6,873.91	NA	40 - 60	Sonsela Sandstone
		08/12/15	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.38	6,874.53	NA	40 - 60	Sonsela Sandstone
		10/28/15	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.47	6,873.44	NA	40 - 60	Sonsela Sandstone
		03/03/16	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.42	6,873.49	NA	40 - 60	Sonsela Sandstone
		06/06/16	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.22	6,873.69	NA	40 - 60	Sonsela Sandstone
		09/06/16	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.70	6,873.21	NA	40 - 60	Sonsela Sandstone
		11/15/16	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.54	6,874.37	NA	40 - 60	Sonsela Sandstone
		02/27/17	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.56	6,874.35	NA	40 - 60	Sonsela Sandstone
		05/31/17	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.07	6,873.84	NA	40 - 60	Sonsela Sandstone
		09/07/17	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.88	6,873.03	NA	40 - 60	Sonsela Sandstone
		12/07/17	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	2.25	6,872.66	NA	40 - 60	Sonsela Sandstone
		02/27/18	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	1.98	6,872.93	NA	40 - 60	Sonsela Sandstone
		04/25/18	4.00	6,873.67	6,874.91	1.24	6,814.58	60.13	ND	NA	1.86	6,873.05	NA	40 - 60	Sonsela Sandstone
		08/15/18	4.00	6,873.67	6,874.91	1.24	6,814.58	60.13	ND	NA	2.41	6,872.50	NA	40 - 60	Sonsela Sandstone
		11/08/18	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	2.50	6,872.41	NA	40 - 60	Sonsela Sandstone
		03/27/19	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.00	6,874.91	NA	40 - 60	Sonsela Sandstone
		05/22/19	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	0.00	6,874.91	NA	40 - 60	Sonsela Sandstone
		08/15/19	4.00	6,873.67	6,874.91	1.24	6,814.58	60.13	ND	NA	1.02	6,873.89	NA	40 - 60	Sonsela Sandstone
		10/17/19	4.00	6,873.67	6,874.91	1.24	6,814.58	60.33	ND	NA	2.33	6,872.58	NA	40 - 60	Sonsela Sandstone
09/25/81	OW-11	08/10/15	4.00	6,922.05	6,923.51	1.46	6,857.72	65.79	ND	NA	19.30	6,904.21	NA	43 - 65	Sonsela Sandstone
		09/09/16	4.00	6,922.05	6,923.51	1.46	6,857.72	65.79	ND	NA	18.79	6,904.72	NA	43 - 65	Sonsela Sandstone
		09/18/17	4.00	6,922.05	6,923.51	1.46	6,857.72	65.79	ND	NA	18.08	6,905.43	NA	43 - 65	Sonsela Sandstone
		08/15/18	4.00	6,922.05	6,923.51	1.46	6,857.72	65.79	ND	NA	19.20	6,904.31	NA	43 - 65	Sonsela Sandstone
		08/20/19	4.00	6,922.05	6,923.51	1.46	6,857.72	65.79	ND	NA	17.70	6,905.81	NA	43 - 65	Sonsela Sandstone
12/15/80	OW-12	08/13/15	4.00	6,939.57	6,940.69	1.12	6,811.84	128.85	ND	NA	47.42	6,893.27	NA	117.8 - 137.8	Sonsela Sandstone
		09/08/16	4.00	6,939.57	6,940.69	1.12	6,811.84	128.85	ND	NA	47.23	6,893.46	NA	117.8 - 137.8	Sonsela Sandstone
		09/19/17	4.00	6,939.57	6,940.69	1.12	6,811.84	128.85	ND	NA	46.74	6,893.95	NA	117.8 - 137.8	Sonsela Sandstone
		08/15/18	4.00	6,939.57	6,940.69	1.12	6,811.84	128.85	ND	NA	46.50	6,894.19	NA	117.8 - 137.8	Sonsela Sandstone
		08/21/19	4.00	6,939.57	6,940.69	1.12	6,811.84	128.85	ND	NA	45.92	6,894.77	NA	117.8 - 137.8	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
12/10/80	OW-13	03/09/15	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.92	6,898.15	NA	78.2 - 98.2	Sonsela Sandstone
		06/01/15	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.76	6,898.31	NA	78.2 - 98.2	Sonsela Sandstone
		08/10/15	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	22.14	6,897.93	NA	78.2 - 98.2	Sonsela Sandstone
		10/27/15	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	22.10	6,897.97	NA	78.2 - 98.2	Sonsela Sandstone
		03/04/16	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.43	6,898.64	NA	78.2 - 98.2	Sonsela Sandstone
		06/06/16	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.45	6,898.62	NA	78.2 - 98.2	Sonsela Sandstone
		08/31/16	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.94	6,898.13	NA	78.2 - 98.2	Sonsela Sandstone
		11/15/16	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.68	6,898.39	NA	78.2 - 98.2	Sonsela Sandstone
		02/27/17	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.11	6,898.96	NA	78.2 - 98.2	Sonsela Sandstone
		05/31/17	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.45	6,898.62	NA	78.2 - 98.2	Sonsela Sandstone
		09/06/17	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.41	6,898.66	NA	78.2 - 98.2	Sonsela Sandstone
		12/11/17	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	21.00	6,899.07	NA	78.2 - 98.2	Sonsela Sandstone
		02/28/18	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	20.50	6,899.57	NA	78.2 - 98.2	Sonsela Sandstone
		04/26/18	4.00	6,918.95	6,920.07	1.12	6,820.92	99.00	ND	NA	20.41	6,899.66	NA	78.2 - 98.2	Sonsela Sandstone
		08/14/18	4.00	6,918.95	6,920.07	1.12	6,820.92	102.00	ND	NA	20.70	6,899.37	NA	78.2 - 98.2	Sonsela Sandstone
		11/06/18	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	20.70	6,899.37	NA	78.2 - 98.2	Sonsela Sandstone
		02/05/19	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	20.38	6,899.69	NA	78.2 - 98.2	Sonsela Sandstone
		05/01/19	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	20.00	6,900.07	NA	78.2 - 98.2	Sonsela Sandstone
		08/12/19	4.00	6,918.95	6,920.07	1.12	6,820.92	102.00	ND	NA	20.50	6,899.57	NA	78.2 - 98.2	Sonsela Sandstone
		10/14/19	4.00	6,918.95	6,920.07	1.12	6,820.92	99.15	ND	NA	20.74	6,899.33	NA	78.2 - 98.2	Sonsela Sandstone



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
12/17/80	OW-14	03/09/15	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.95	6,902.70	NA	35 - 45	Chinle/Alluvial Interface
		06/01/15	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.88	6,902.77	NA	35 - 45	Chinle/Alluvial Interface
		08/10/15	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.96	6,902.69	NA	35 - 45	Chinle/Alluvial Interface
		10/27/15	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.69	6,902.96	NA	35 - 45	Chinle/Alluvial Interface
		03/04/16	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.20	6,903.45	NA	35 - 45	Chinle/Alluvial Interface
		06/06/16	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.18	6,903.47	NA	35 - 45	Chinle/Alluvial Interface
		08/31/16	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.50	6,903.15	NA	35 - 45	Chinle/Alluvial Interface
		11/15/16	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.28	6,903.37	NA	35 - 45	Chinle/Alluvial Interface
		02/27/17	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	22.83	6,903.82	NA	35 - 45	Chinle/Alluvial Interface
		05/30/17	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	23.18	6,903.47	NA	35 - 45	Chinle/Alluvial Interface
		09/06/17	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	22.56	6,904.09	NA	35 - 45	Chinle/Alluvial Interface
		12/11/17	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	22.20	6,904.45	NA	35 - 45	Chinle/Alluvial Interface
		02/27/18	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	21.80	6,904.85	NA	35 - 45	Chinle/Alluvial Interface
		04/26/18	4.00	6,924.55	6,926.65	2.10	6,880.13	46.75	ND	NA	21.75	6,904.90	NA	35 - 45	Chinle/Alluvial Interface
		08/14/18	4.00	6,924.55	6,926.65	2.10	6,880.13	46.78	ND	NA	21.95	6,904.70	NA	35 - 45	Chinle/Alluvial Interface
		11/06/18	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	21.82	6,904.83	NA	35 - 45	Chinle/Alluvial Interface
		02/05/19	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	21.64	6,905.01	NA	35 - 45	Chinle/Alluvial Interface
		05/01/19	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	ND	NA	21.45	6,905.20	NA	35 - 45	Chinle/Alluvial Interface
		08/12/19	4.00	6,924.55	6,926.65	2.10	6,880.13	46.78	NM	NA	NM	NA	NA	35 - 45	Chinle/Alluvial Interface
		11/01/19	4.00	6,924.55	6,926.65	2.10	6,880.13	46.52	NM	NA	NM	NA	NA	35 - 45	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
08/23/96	OW-29	03/09/15	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.67	6,898.33	NA	37.5 - 47.5	Chinle/Alluvial Interface
		06/01/15	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.67	6,898.33	NA	37.5 - 47.5	Chinle/Alluvial Interface
		08/10/15	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.94	6,898.06	NA	37.5 - 47.5	Chinle/Alluvial Interface
		10/27/15	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.72	6,898.28	NA	37.5 - 47.5	Chinle/Alluvial Interface
		03/04/16	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.15	6,898.85	NA	37.5 - 47.5	Chinle/Alluvial Interface
		06/06/16	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.16	6,898.84	NA	37.5 - 47.5	Chinle/Alluvial Interface
		08/31/16	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.60	6,898.40	NA	37.5 - 47.5	Chinle/Alluvial Interface
		11/15/16	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.23	6,898.77	NA	37.5 - 47.5	Chinle/Alluvial Interface
		02/27/17	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	17.82	6,899.18	NA	37.5 - 47.5	Chinle/Alluvial Interface
		05/30/17	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.16	6,898.84	NA	37.5 - 47.5	Chinle/Alluvial Interface
		09/06/17	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	18.05	6,898.95	NA	37.5 - 47.5	Chinle/Alluvial Interface
		12/11/17	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	17.50	6,899.50	NA	37.5 - 47.5	Chinle/Alluvial Interface
		02/27/18	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	17.12	6,899.88	NA	37.5 - 47.5	Chinle/Alluvial Interface
		04/26/18	4.00	6,913.89	6,917.00	3.11	6,865.92	51.90	ND	NA	16.98	6,900.02	NA	37.5 - 47.5	Chinle/Alluvial Interface
		08/14/18	4.00	6,913.89	6,917.00	3.11	6,865.92	52.40	ND	NA	17.52	6,899.48	NA	37.5 - 47.5	Chinle/Alluvial Interface
		11/06/18	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	17.22	6,899.78	NA	37.5 - 47.5	Chinle/Alluvial Interface
		02/05/19	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	16.92	6,900.08	NA	37.5 - 47.5	Chinle/Alluvial Interface
		05/01/19	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	16.71	6,900.29	NA	37.5 - 47.5	Chinle/Alluvial Interface
		08/12/19	4.00	6,913.89	6,917.00	3.11	6,865.92	52.40	ND	NA	17.16	6,899.84	NA	37.5 - 47.5	Chinle/Alluvial Interface
		10/14/19	4.00	6,913.89	6,917.00	3.11	6,865.92	51.08	ND	NA	17.24	6,899.76	NA	37.5 - 47.5	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
08/28/96	OW-30	03/09/15	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	23.25	6,901.44	NA	37.9 - 47.9	Chinle/Alluvial Interface
		06/01/15	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	23.20	6,901.49	NA	37.9 - 47.9	Chinle/Alluvial Interface
		08/10/15	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	23.42	6,901.27	NA	37.9 - 47.9	Chinle/Alluvial Interface
		10/27/15	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	23.14	6,901.55	NA	37.9 - 47.9	Chinle/Alluvial Interface
		03/08/16	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.55	6,902.14	NA	37.9 - 47.9	Chinle/Alluvial Interface
		06/06/16	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.64	6,902.05	NA	37.9 - 47.9	Chinle/Alluvial Interface
		08/31/16	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	23.30	6,901.39	NA	37.9 - 47.9	Chinle/Alluvial Interface
		11/14/16	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.75	6,901.94	NA	37.9 - 47.9	Chinle/Alluvial Interface
		02/27/17	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.24	6,902.45	NA	37.9 - 47.9	Chinle/Alluvial Interface
		05/31/17	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.64	6,902.05	NA	37.9 - 47.9	Chinle/Alluvial Interface
		09/06/17	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	22.28	6,902.41	NA	37.9 - 47.9	Chinle/Alluvial Interface
		12/12/17	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	21.75	6,902.94	NA	37.9 - 47.9	Chinle/Alluvial Interface
		02/28/18	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	21.33	6,903.36	NA	37.9 - 47.9	Chinle/Alluvial Interface
		04/26/18	4.00	6,921.81	6,924.69	2.88	6,874.79	50.20	ND	NA	21.28	6,903.41	NA	37.9 - 47.9	Chinle/Alluvial Interface
		08/15/18	4.00	6,921.81	6,924.69	2.88	6,874.79	51.40	ND	NA	21.70	6,902.99	NA	37.9 - 47.9	Chinle/Alluvial Interface
		12/03/18	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	21.30	6,903.39	NA	37.9 - 47.9	Chinle/Alluvial Interface
		03/27/19	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	21.13	6,903.56	NA	37.9 - 47.9	Chinle/Alluvial Interface
		06/05/19	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	21.14	6,903.55	NA	37.9 - 47.9	Chinle/Alluvial Interface
		08/12/19	4.00	6,921.81	6,924.69	2.88	6,874.79	51.40	NM	NA	NM	NA	NA	37.9 - 47.9	Chinle/Alluvial Interface
		11/01/19	4.00	6,921.81	6,924.69	2.88	6,874.79	49.90	ND	NA	NM	NA	NA	37.9 - 47.9	Chinle/Alluvial Interface
10/05/09		08/10/15	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	16.47	6,897.74	NA	48 - 63	Chinle/Alluvial Interface
		09/09/16	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	16.19	6,898.02	NA	48 - 63	Chinle/Alluvial Interface
		09/11/17	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	15.60	6,898.61	NA	48 - 63	Chinle/Alluvial Interface
		08/14/18	2.00	6,912.63	6,914.21	1.58	6,850.21	65.25	ND	NA	15.12	6,899.09	NA	48 - 63	Chinle/Alluvial Interface
		11/07/18	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	15.20	6,899.01	NA	48 - 63	Chinle/Alluvial Interface
		03/27/19	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	14.40	6,899.81	NA	48 - 63	Chinle/Alluvial Interface
		05/01/19	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	14.39	6,899.82	NA	49 - 63	Chinle/Alluvial Interface
		08/16/19	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	14.74	6,899.47	NA	50 - 63	Chinle/Alluvial Interface
		10/15/19	2.00	6,912.63	6,914.21	1.58	6,850.21	64.00	ND	NA	14.92	6,899.29	NA	48 - 63	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/06/09	OW-52	08/10/15	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	15.49	6,892.19	NA	64 - 79	Chinle/Alluvial Interface
		09/09/16	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	15.28	6,892.40	NA	64 - 79	Chinle/Alluvial Interface
		09/11/17	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	14.85	6,892.83	NA	64 - 79	Chinle/Alluvial Interface
		08/15/18	2.00	6,906.53	6,907.68	1.15	6,829.94	79.00	ND	NA	14.52	6,893.16	NA	64 - 79	Chinle/Alluvial Interface
		11/07/18	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	14.44	6,893.24	NA	64 - 79	Chinle/Alluvial Interface
		03/27/19	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	13.97	6,893.71	NA	64 - 79	Chinle/Alluvial Interface
		05/01/19	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	13.74	6,893.94	NA	65 - 79	Chinle/Alluvial Interface
		08/16/19	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	14.21	6,893.47	NA	66 - 79	Chinle/Alluvial Interface
		10/15/19	2.00	6,906.53	6,907.68	1.15	6,829.94	77.74	ND	NA	14.40	6,893.28	NA	64 - 79	Chinle/Alluvial Interface
05/31/16	OW-53	03/29/17	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		06/21/17	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		09/11/17	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		12/05/17	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		02/21/18	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		04/26/18	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		08/15/18	2.00	6,911.93	6,914.38	2.45	6,945.84	33.91	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		11/06/18	2.00	6,911.93	6,914.38	2.45	6,945.83	33.90	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		02/06/19	2.00	6,911.71	6,914.38	2.67	6,945.62	33.91	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		05/02/19	2.00	6,911.71	6,914.38	2.67	6,945.62	33.91	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		08/21/19	2.00	6,911.71	6,914.38	2.67	6,945.62	33.91	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface
		10/15/19	2.00	6,911.71	6,914.38	2.67	6,945.62	33.91	ND	NA	DRY	NA	NA	16 - 31	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/01/16	OW-54	03/29/17	2.00	6,916.36	6,918.92	2.56	6,947.40	31.04	ND	NA	18.44	6,900.48	NA	13 - 28	Chinle/Alluvial Interface
		06/21/17	2.00	6,916.36	6,918.92	2.56	6,947.40	31.04	ND	NA	18.63	6,900.29	NA	13 - 28	Chinle/Alluvial Interface
		09/11/17	2.00	6,916.36	6,918.92	2.56	6,947.40	31.04	ND	NA	18.70	6,900.22	NA	13 - 28	Chinle/Alluvial Interface
		12/05/17	2.00	6,916.36	6,918.92	2.56	6,947.42	31.06	ND	NA	18.27	6,900.65	NA	13 - 28	Chinle/Alluvial Interface
		02/21/18	2.00	6,916.36	6,918.92	2.56	6,947.23	30.87	ND	NA	18.05	6,900.87	NA	13 - 28	Chinle/Alluvial Interface
		04/26/18	2.00	6,916.36	6,918.92	2.56	6,946.06	29.70	ND	NA	17.83	6,901.09	NA	13 - 28	Chinle/Alluvial Interface
		08/14/18	2.00	6,916.36	6,918.92	2.56	6,945.98	29.62	ND	NA	18.23	6,900.69	NA	13 - 28	Chinle/Alluvial Interface
		11/06/18	2.00	6,916.36	6,918.92	2.56	6,947.42	31.06	ND	NA	17.90	6,901.02	NA	13 - 28	Chinle/Alluvial Interface
		02/06/19	2.00	6,916.27	6,918.92	2.65	6,947.31	31.04	ND	NA	17.58	6,901.34	NA	13 - 28	Chinle/Alluvial Interface
		05/02/19	2.00	6,916.27	6,918.92	2.65	6,947.31	31.04	ND	NA	17.52	6,901.40	NA	13 - 28	Chinle/Alluvial Interface
		08/21/19	2.00	6,916.27	6,918.92	2.65	6,945.89	29.62	ND	NA	18.00	6,900.92	NA	13 - 28	Chinle/Alluvial Interface
		10/15/19	2.00	6,916.27	6,918.92	2.65	6,947.33	31.06	ND	NA	18.09	6,900.83	NA	13 - 28	Chinle/Alluvial Interface
06/01/16		03/29/17	2.00	6,921.01	6,923.25	2.24	6,951.71	30.70	ND	NA	18.39	6,904.86	NA	13 - 28	Chinle/Alluvial Interface
		06/21/17	2.00	6,921.01	6,923.25	2.24	6,951.71	30.70	ND	NA	18.47	6,904.78	NA	13 - 28	Chinle/Alluvial Interface
		09/11/17	2.00	6,921.01	6,923.25	2.24	6,951.71	30.70	ND	NA	18.49	6,904.76	NA	13 - 28	Chinle/Alluvial Interface
	OW-55	12/05/17	2.00	6,921.01	6,923.25	2.24	6,951.91	30.90	ND	NA	18.05	6,905.20	NA	13 - 28	Chinle/Alluvial Interface
		02/21/18	2.00	6,921.01	6,923.25	2.24	6,951.96	30.95	ND	NA	17.80	6,905.45	NA	13 - 28	Chinle/Alluvial Interface
		04/26/18	2.00	6,921.01	6,923.25	2.24	6,951.93	30.92	ND	NA	17.61	6,905.64	NA	13 - 28	Chinle/Alluvial Interface
		08/14/18	2.00	6,921.01	6,923.25	2.24	6,951.71	30.70	ND	NA	17.94	6,905.31	NA	13 - 28	Chinle/Alluvial Interface
		11/06/18	2.00	6,921.01	6,923.25	2.24	6,951.91	30.90	ND	NA	17.72	6,905.53	NA	13 - 28	Chinle/Alluvial Interface
		02/06/19	2.00	6,921.02	6,923.25	2.23	6,951.72	30.70	ND	NA	17.37	6,905.88	NA	13 - 28	Chinle/Alluvial Interface
		05/02/19	2.00	6,921.02	6,923.25	2.23	6,951.72	30.70	ND	NA	17.38	6,905.87	NA	13 - 28	Chinle/Alluvial Interface
		08/21/19	2.00	6,921.02	6,923.25	2.23	6,951.72	30.70	ND	NA	17.70	6,905.55	NA	13 - 28	Chinle/Alluvial Interface
		10/15/19	2.00	6,921.02	6,923.25	2.23	6,951.92	30.90	ND	NA	17.73	6,905.52	NA	13 - 28	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/01/16	OW-56	03/29/17	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	12.29	6,907.89	NA	6 - 16	Chinle/Alluvial Interface
		06/21/17	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	13.53	6,906.65	NA	6 - 16	Chinle/Alluvial Interface
		09/11/17	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	14.50	6,905.68	NA	6 - 16	Chinle/Alluvial Interface
		12/05/17	2.00	6,917.79	6,920.18	2.39	6,936.37	18.58	ND	NA	13.43	6,906.75	NA	6 - 16	Chinle/Alluvial Interface
		02/21/18	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	12.84	6,907.34	NA	6 - 16	Chinle/Alluvial Interface
		04/26/18	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	12.62	6,907.56	NA	6 - 16	Chinle/Alluvial Interface
		08/14/18	2.00	6,917.79	6,920.18	2.39	6,936.38	18.59	ND	NA	13.82	6,906.36	NA	6 - 16	Chinle/Alluvial Interface
		11/06/18	2.00	6,917.79	6,920.18	2.39	6,936.37	18.58	ND	NA	14.05	6,906.13	NA	6 - 16	Chinle/Alluvial Interface
		02/06/19	2.00	6,917.61	6,920.18	2.57	6,936.20	18.59	ND	NA	13.00	6,907.18	NA	6 - 16	Chinle/Alluvial Interface
		05/02/19	2.00	6,917.61	6,920.18	2.57	6,936.20	18.59	ND	NA	12.50	6,907.68	NA	6 - 16	Chinle/Alluvial Interface
		08/21/19	2.00	6,917.61	6,920.18	2.57	6,936.20	18.59	ND	NA	13.66	6,906.52	NA	6 - 16	Chinle/Alluvial Interface
		10/15/19	2.00	6,917.61	6,920.18	2.57	6,936.19	18.58	ND	NA	14.38	6,905.80	NA	6 - 16	Chinle/Alluvial Interface
10/05/16		03/30/17	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	NM	NA	NM	NA	NA	15 - 25	Chinle/Alluvial Interface
		06/20/17	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	20.52	6,912.58	NA	15 - 25	Chinle/Alluvial Interface
		09/19/17	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	20.15	6,912.95	NA	15 - 25	Chinle/Alluvial Interface
	OW-57	12/05/17	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	20.11	6,912.99	NA	15 - 25	Chinle/Alluvial Interface
		02/19/18	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	19.88	6,913.22	NA	15 - 25	Chinle/Alluvial Interface
		04/25/18	2.00	6,930.64	6,933.10	2.46	6,958.70	28.06	ND	NA	20.02	6,913.08	NA	15 - 25	Chinle/Alluvial Interface
		08/15/18	2.00	6,930.64	6,933.10	2.46	6,958.71	28.07	ND	NA	20.16	6,912.94	NA	15 - 25	Chinle/Alluvial Interface
		11/29/18	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	20.30	6,912.80	NA	15 - 25	Chinle/Alluvial Interface
		02/19/19	2.00	6,930.64	6,933.10	2.46	6,958.74	28.10	ND	NA	20.29	6,912.81	NA	15 - 25	Chinle/Alluvial Interface
		05/15/19	2.00	6,930.64	6,933.10	2.46	6,958.74	28.10	ND	NA	20.02	6,913.08	NA	15 - 25	Chinle/Alluvial Interface
		08/20/19	2.00	6,930.64	6,933.10	2.46	6,958.71	28.07	ND	NA	19.78	6,913.32	NA	15 - 25	Chinle/Alluvial Interface
		11/04/19	2.00	6,930.64	6,933.10	2.46	6,958.99	28.35	ND	NA	19.97	6,913.13	NA	15 - 25	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/03/16	OW-58	03/29/17	2.00	6,934.71	6,934.50	-0.21	6,982.26	47.55	ND	NA	26.00	6,908.50	NA	38 - 48	Chinle/Alluvial Interface
		06/21/17	2.00	6,934.71	6,934.50	-0.21	6,982.26	47.55	ND	NA	25.14	6,909.36	NA	38 - 48	Chinle/Alluvial Interface
		09/19/17	2.00	6,934.71	6,934.50	-0.21	6,982.26	47.55	ND	NA	25.04	6,909.46	NA	38 - 48	Chinle/Alluvial Interface
		12/06/17	2.00	6,934.71	6,934.50	-0.21	6,982.21	47.50	ND	NA	24.67	6,909.83	NA	38 - 48	Chinle/Alluvial Interface
		02/20/18	2.00	6,934.71	6,934.50	-0.21	6,982.33	47.62	ND	NA	24.52	6,909.98	NA	38 - 48	Chinle/Alluvial Interface
		04/25/18	2.00	6,934.71	6,934.50	-0.21	6,982.21	47.50	ND	NA	24.25	6,910.25	NA	38 - 48	Chinle/Alluvial Interface
		08/16/18	2.00	6,934.71	6,934.50	-0.21	6,982.20	47.49	ND	NA	24.48	6,910.02	NA	38 - 48	Chinle/Alluvial Interface
		11/29/18	2.00	6,934.71	6,934.50	-0.21	6,982.21	47.50	ND	NA	24.27	6,910.23	NA	38 - 48	Chinle/Alluvial Interface
		03/28/19	2.00	6,934.71	6,934.50	-0.21	6,982.01	47.30	ND	NA	24.28	6,910.22	NA	38 - 48	Chinle/Alluvial Interface
		06/05/19	2.00	6,934.71	6,934.50	-0.21	6,982.01	47.30	ND	NA	24.09	6,910.41	NA	38 - 48	Chinle/Alluvial Interface
		08/20/19	2.00	6,934.71	6,934.50	-0.21	6,982.20	47.49	ND	NA	24.00	6,910.50	NA	38 - 48	Chinle/Alluvial Interface
		11/18/19	2.00	6,934.71	6,934.50	-0.21	6,982.21	47.50	ND	NA	23.99	6,910.51	NA	38 - 48	Chinle/Alluvial Interface
06/29/17		09/21/17	2.00	6,887.63	6,889.73	2.10	6,925.93	38.30	ND	NA	24.30	6,865.43	NA	20 - 35	Chinle/Alluvial Interface
		12/05/17	2.00	6,887.63	6,889.73	2.10	6,926.13	38.50	ND	NA	24.30	6,865.43	NA	20 - 35	Chinle/Alluvial Interface
	OW-59	02/21/18	2.00	6,887.63	6,889.73	2.10	6,926.18	38.55	ND	NA	24.00	6,865.73	NA	20 - 35	Chinle/Alluvial Interface
		04/26/18	2.00	6,887.63	6,889.73	2.10	6,926.11	38.48	ND	NA	24.05	6,865.68	NA	20 - 35	Chinle/Alluvial Interface
		08/14/18	2.00	6,887.63	6,889.73	2.10	6,926.15	38.52	ND	NA	24.13	6,865.60	NA	20 - 35	Chinle/Alluvial Interface
		11/06/18	2.00	6,887.63	6,889.73	2.10	6,926.13	38.50	ND	NA	23.90	6,865.83	NA	20 - 35	Chinle/Alluvial Interface
		02/13/19	2.00	6,886.40	6,888.66	2.26	6,924.70	38.30	ND	NA	23.90	6,864.76	NA	20 - 35	Chinle/Alluvial Interface
		05/02/19	2.00	6,886.40	6,888.66	2.26	6,924.70	38.30	ND	NA	23.80	6,864.86	NA	20 - 35	Chinle/Alluvial Interface
		08/21/19	2.00	6,886.40	6,888.66	2.26	6,924.92	38.52	ND	NA	24.02	6,864.64	NA	20 - 35	Chinle/Alluvial Interface
		10/15/19	2.00	6,886.40	6,888.66	2.26	6,924.90	38.50	ND	NA	24.11	6,864.55	NA	20 - 35	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
06/29/17	OW-60	09/21/17	2.00	6,891.06	6,893.51	2.45	6,936.61	45.55	ND	NA	16.45	6,877.06	NA	25 - 45	Chinle/Alluvial Interface
		12/05/17	2.00	6,891.06	6,893.51	2.45	6,936.76	45.70	ND	NA	16.40	6,877.11	NA	25 - 45	Chinle/Alluvial Interface
		02/21/18	2.00	6,891.06	6,893.51	2.45	6,937.12	46.06	ND	NA	16.26	6,877.25	NA	25 - 45	Chinle/Alluvial Interface
		04/26/18	2.00	6,891.06	6,893.51	2.45	6,937.21	46.15	ND	NA	16.52	6,876.99	NA	25 - 45	Chinle/Alluvial Interface
		08/14/18	2.00	6,891.06	6,893.51	2.45	6,937.48	46.42	ND	NA	16.52	6,876.99	NA	25 - 45	Chinle/Alluvial Interface
		11/06/18	2.00	6,891.06	6,893.51	2.45	6,936.76	45.70	ND	NA	16.25	6,877.26	NA	25 - 45	Chinle/Alluvial Interface
		02/13/19	2.00	6,889.93	6,892.50	2.57	6,935.43	45.50	ND	NA	16.43	6,876.07	NA	25 - 45	Chinle/Alluvial Interface
		05/02/19	2.00	6,889.93	6,892.50	2.57	6,935.43	45.50	ND	NA	16.55	6,875.95	NA	25 - 45	Chinle/Alluvial Interface
		08/21/19	2.00	6,889.93	6,892.50	2.57	6,936.35	46.42	ND	NA	16.53	6,875.97	NA	25 - 45	Chinle/Alluvial Interface
		10/15/19	2.00	6,889.93	6,892.50	2.57	6,935.63	45.70	ND	NA	16.41	6,876.09	NA	25 - 45	Chinle/Alluvial Interface
03/14/18	OW-61	03/21/18	4.00	6,960.91	6,963.57	2.66	6,992.59	31.68	16.71	0.09	16.80	6,946.77	6,946.84	8 - 28	Chinle/Alluvial Interface
		04/24/18	4.00	6,960.91	6,963.57	2.66	6,992.58	31.67	17.22	0.82	18.04	6,945.53	6,946.19	8 - 28	Chinle/Alluvial Interface
		08/16/18	4.00	6,960.91	6,963.57	2.66	6,992.61	31.70	17.40	4.70	22.10	6,941.47	6,945.23	8 - 28	Chinle/Alluvial Interface
		11/29/18	4.00	6,960.91	6,963.57	2.66	6,992.91	32.00	17.95	4.05	22.00	6,941.57	6,944.81	8 - 28	Chinle/Alluvial Interface
		02/19/19	4.00	6,959.29	6,961.88	2.59	6,991.29	32.00	18.00	4.09	22.09	6,939.79	6943.06	8 - 28	Chinle/Alluvial Interface
		05/15/19	4.00	6,959.29	6,961.88	2.59	6,991.29	32.00	17.62	3.51	21.13	6,940.75	6943.56	8 - 28	Chinle/Alluvial Interface
		08/20/19	4.00	6,959.29	6,961.88	2.59	6,990.99	31.70	17.42	2.73	20.15	6,941.73	6943.91	8 - 28	Chinle/Alluvial Interface
		11/04/19	4.00	6,959.29	6,961.88	2.59	6,991.29	32.00	17.54	3.09	20.63	6,941.25	6943.722	8 - 28	Chinle/Alluvial Interface
03/15/18		03/21/18	4.00	6,934.73	6,937.36	2.63	6,966.30	31.57	ND	NA	22.93	6,914.43	NA	8 - 28	Chinle/Alluvial Interface
		04/24/18	4.00	6,934.73	6,937.36	2.63	6,966.31	31.58	ND	NA	23.14	6,914.22	NA	8 - 28	Chinle/Alluvial Interface
	OW-62	08/15/18	4.00	6,934.73	6,937.36	2.63	6,966.32	31.59	ND	NA	23.70	6,913.66	NA	8 - 28	Chinle/Alluvial Interface
		11/29/18	4.00	6,934.73	6,937.36	2.63	6,966.32	31.59	ND	NA	23.99	6,913.37	NA	8 - 28	Chinle/Alluvial Interface
		02/19/19	4.00	6,933.21	6,936.09	2.88	6,964.68	31.47	23.75	1.20	24.95	6,911.14	6912.10	8 - 28	Chinle/Alluvial Interface
		05/15/19	4.00	6,933.21	6,936.09	2.88	6,964.68	31.47	23.40	0.60	24.00	6,912.09	6912.57	8 - 28	Chinle/Alluvial Interface
		08/20/19	4.00	6,933.21	6,936.09	2.88	6,964.68	31.47	23.86	0.43	24.29	6,911.80	6912.14	8 - 28	Chinle/Alluvial Interface
		11/18/19	4.00	6,933.21	6,936.09	2.88	6,964.68	31.47	23.72	0.62	24.34	6,911.75	6912.25	8 - 28	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/14/18	OW-63	03/21/18	4.00	6,932.34	6,935.06	2.72	6,964.52	32.18	ND	NA	20.19	6,914.87	NA	9 - 29	Chinle/Alluvial Interface
		04/24/18	4.00	6,932.34	6,935.06	2.72	6,964.52	32.18	ND	NA	20.33	6,914.73	NA	9 - 29	Chinle/Alluvial Interface
		08/16/18	4.00	6,932.34	6,935.06	2.72	6,964.54	32.20	ND	NA	20.60	6,914.46	NA	9 - 29	Chinle/Alluvial Interface
		11/29/18	4.00	6,932.34	6,935.06	2.72	6,964.34	32.00	ND	NA	20.95	6,914.11	NA	9 - 29	Chinle/Alluvial Interface
		02/19/19	4.00	6,930.87	6,933.87	3.00	6,962.87	32.00	ND	NA	20.74	6,913.13	NA	9 - 29	Chinle/Alluvial Interface
		05/15/19	4.00	6,930.87	6,933.87	3.00	6,962.87	32.00	ND	NA	20.35	6,913.52	NA	9 - 29	Chinle/Alluvial Interface
		08/19/19	4.00	6,930.87	6,933.87	3.00	6,963.07	32.20	ND	NA	20.12	6,913.75	NA	9 - 29	Chinle/Alluvial Interface
		11/18/19	4.00	6,930.87	6,933.87	3.00	6,962.87	32.00	ND	NA	20.30	6,913.57	NA	9 - 29	Chinle/Alluvial Interface
03/16/18	OW-64	03/21/18	4.00	6,945.07	6,947.40	2.33	6,972.69	27.62	ND	NA	7.72	6,939.68	NA	4 - 24	Chinle/Alluvial Interface
		04/24/18	4.00	6,945.07	6,947.40	2.33	6,972.70	27.63	ND	NA	7.85	6,939.55	NA	4 - 24	Chinle/Alluvial Interface
		08/16/18	4.00	6,945.07	6,947.40	2.33	6,972.42	27.35	ND	NA	7.51	6,939.89	NA	4 - 24	Chinle/Alluvial Interface
		11/29/18	4.00	6,945.07	6,947.40	2.33	6,972.42	27.35	8.06	0.05	8.11	6,939.29	6,939.33	4 - 24	Chinle/Alluvial Interface
		02/19/19	4.00	6,943.32	6,946.09	2.77	6,970.95	27.63	7.00	0.02	7.02	6,939.07	6939.09	4 - 24	Chinle/Alluvial Interface
		05/15/19	4.00	6,943.32	6,946.09	2.77	6,970.95	27.63	ND	NA	6.83	6,939.26	NA	4 - 24	Chinle/Alluvial Interface
		08/19/19	4.00	6,943.32	6,946.09	2.77	6,970.67	27.35	ND	NA	7.10	6,938.99	NA	4 - 24	Chinle/Alluvial Interface
		11/18/19	4.00	6,943.32	6,946.09	2.77	6,970.67	27.35	ND	NA	8.40	6,937.69	NA	4 - 24	Chinle/Alluvial Interface
03/12/18	OW-65	03/21/18	4.00	6,951.62	6,954.05	2.43	6,993.28	41.66	23.40	0.20	23.60	6,930.45	6,930.61	17 - 37	Chinle/Alluvial Interface
		04/24/18	4.00	6,951.62	6,954.05	2.43	6,993.27	41.65	23.61	2.74	26.35	6,927.70	6,929.89	17 - 37	Chinle/Alluvial Interface
		08/16/18	4.00	6,951.62	6,954.05	2.43	6,993.28	41.66	24.96	1.68	26.64	6,927.41	6,928.75	17 - 37	Chinle/Alluvial Interface
		11/29/18	4.00	6,951.62	6,954.05	2.43	6,991.62	40.00	24.05	7.75	31.80	6,922.25	6,928.45	17 - 37	Chinle/Alluvial Interface
		02/19/19	4.00	6,949.95	6,952.83	2.88	6,989.95	40.00	22.24	9.27	31.51	6,921.32	6928.74	17 - 37	Chinle/Alluvial Interface
		05/15/19	4.00	6,949.95	6,952.83	2.88	6,989.95	40.00	23.47	8.74	32.21	6,920.62	6927.61	17 - 37	Chinle/Alluvial Interface
		08/20/19	4.00	6,949.95	6,952.83	2.88	6,991.61	41.66	21.97	9.18	31.15	6,921.68	6929.02	17 - 37	Chinle/Alluvial Interface
		11/04/19	4.00	6,949.95	6,952.83	2.88	6,989.95	40.00	22.30	8.55	30.85	6,921.98	6928.82	17 - 37	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/28/95	RW-1	03/23/15	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	28.10	4.70	32.80	6,913.26	6,917.02	25 - 40	Chinle/Alluvial Interface
		06/09/15	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.70	4.40	32.10	6,913.96	6,917.48	25 - 40	Chinle/Alluvial Interface
		08/23/15	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	28.08	1.94	30.02	6,916.04	6,917.59	25 - 40	Chinle/Alluvial Interface
		10/29/15	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.65	2.45	30.10	6,915.96	6,917.92	25 - 40	Chinle/Alluvial Interface
		03/04/16	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	28.05	2.50	30.55	6,915.51	6,917.51	25 - 40	Chinle/Alluvial Interface
		06/08/16	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.98	3.82	31.80	6,914.26	6,917.32	25 - 40	Chinle/Alluvial Interface
		09/13/16	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.90	4.14	32.04	6,914.02	6,917.33	25 - 40	Chinle/Alluvial Interface
		11/16/16	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.80	3.10	30.90	6,915.16	6,917.64	25 - 40	Chinle/Alluvial Interface
		03/16/17	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	27.05	3.50	30.55	6,915.51	6,918.31	25 - 40	Chinle/Alluvial Interface
		06/20/17	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	26.77	1.65	28.42	6,917.64	6,918.96	25 - 40	Chinle/Alluvial Interface
		09/19/17	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	26.52	1.08	27.60	6,918.46	6,919.32	25 - 40	Chinle/Alluvial Interface
		12/12/17	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	26.50	1.00	27.50	6,918.56	6,919.36	25 - 40	Chinle/Alluvial Interface
		02/13/18	4.00	6,942.86	6,946.06	3.20	6,903.02	43.04	26.94	0.28	27.22	6,918.84	6,919.06	25 - 40	Chinle/Alluvial Interface
		04/25/18	4.00	6,942.86	6,946.06	3.20	6,903.02	43.35	26.94	0.27	27.21	6,918.85	6,919.07	25 - 40	Chinle/Alluvial Interface
		08/16/18	4.00	6,942.86	6,946.06	3.20	6,903.02	43.45	27.44	0.26	27.70	6,918.36	6,918.57	25 - 40	Chinle/Alluvial Interface
		11/07/18	4.00	6,942.86	6,946.06	3.20	6,903.02	NM	NM	NA	NM	NA	NA	25 - 40	Chinle/Alluvial Interface
		03/28/19	4.00	6,942.86	6,946.06	3.20	6,903.02	NM	NM	NA	NA	NA	NA	25 - 40	Chinle/Alluvial Interface
		05/08/19	4.00	6,942.86	6,946.06	3.20	6,903.02	NM	NM	NA	NA	NA	NA	25 - 40	Chinle/Alluvial Interface
		08/16/19	4.00	6,942.86	6,946.06	3.20	6,903.02	NM	NM	NA	NA	NA	NA	25 - 40	Chinle/Alluvial Interface
		11/01/19	4.00	6,942.86	6,946.06	3.20	6,903.02	NM	NM	NA	NM	NA	NA	25 - 40	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
03/29/95	RW-2	03/23/15	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	23.52	6,905.01	NA	26.1 - 36.1	Chinle/Alluvial Interface
		06/09/15	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	23.02	6,905.51	NA	26.1 - 36.1	Chinle/Alluvial Interface
		08/23/15	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	23.37	6,905.16	NA	26.1 - 36.1	Chinle/Alluvial Interface
		10/29/15	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	22.80	6,905.73	NA	26.1 - 36.1	Chinle/Alluvial Interface
		03/04/16	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	22.45	6,906.08	NA	26.1 - 36.1	Chinle/Alluvial Interface
		06/08/16	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	22.31	6,906.22	NA	26.1 - 36.1	Chinle/Alluvial Interface
		09/13/16	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	22.47	6,906.06	NA	26.1 - 36.1	Chinle/Alluvial Interface
		11/16/16	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	22.22	6,906.31	NA	26.1 - 36.1	Chinle/Alluvial Interface
		03/16/17	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	21.65	6,906.88	NA	26.1 - 36.1	Chinle/Alluvial Interface
		06/20/17	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	21.19	6,907.34	NA	26.1 - 36.1	Chinle/Alluvial Interface
		09/19/17	4.00	6,926.40	6,928.53	2.13	6,888.73	39.80	ND	NA	20.71	6,907.82	NA	26.1 - 36.1	Chinle/Alluvial Interface
		12/05/17	4.00	6,926.40	6,928.53	2.13	6,888.73	40.00	ND	NA	20.34	6,908.19	NA	26.1 - 36.1	Chinle/Alluvial Interface
		02/19/18	4.00	6,926.40	6,928.53	2.13	6,888.73	40.00	ND	NA	20.00	6,908.53	NA	26.1 - 36.1	Chinle/Alluvial Interface
		04/25/18	4.00	6,926.40	6,928.53	2.13	6,888.73	39.99	ND	NA	20.03	6,908.50	NA	26.1 - 36.1	Chinle/Alluvial Interface
		08/16/18	4.00	6,926.40	6,928.53	2.13	6,888.73	40.00	ND	NA	20.10	6,908.43	NA	26.1 - 36.1	Chinle/Alluvial Interface
		11/07/18	4.00	6,926.40	6,928.53	2.13	6,888.73	NM	NM	NA	NM	NA	NA	26.1 - 36.1	Chinle/Alluvial Interface
		03/28/19	4.00	6,926.40	6,928.53	2.13	6,888.73	NM	NM	NA	NM	NA	NA	26.1 - 36.1	Chinle/Alluvial Interface
		05/08/19	4.00	6,926.40	6,928.53	2.13	6,888.73	NM	NM	NA	NM	NA	NA	26.1 - 36.1	Chinle/Alluvial Interface
		08/16/19	4.00	6,926.40	6,928.53	2.13	6,888.73	NM	NM	NA	NM	NA	NA	26.1 - 36.1	Chinle/Alluvial Interface
		11/01/19	4.00	6,926.40	6,928.53	2.13	6,888.73	NM	NM	NA	NM	NA	NA	26.1 - 36.1	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
08/27/97	RW-5	03/23/15	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	29.10	6,914.47	NA	29.5 - 39.5	Chinle/Alluvial Interface
		06/09/15	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	28.80	6,914.77	NA	29.5 - 39.5	Chinle/Alluvial Interface
		08/23/15	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	29.08	6,914.49	NA	29.5 - 39.5	Chinle/Alluvial Interface
		10/29/15	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	27.97	6,915.60	NA	29.5 - 39.5	Chinle/Alluvial Interface
		03/04/16	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	28.22	6,915.35	NA	29.5 - 39.5	Chinle/Alluvial Interface
		06/07/16	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	28.22	6,915.35	NA	29.5 - 39.5	Chinle/Alluvial Interface
		09/13/16	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	27.70	6,915.87	NA	29.5 - 39.5	Chinle/Alluvial Interface
		11/16/16	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	27.40	6,916.17	NA	29.5 - 39.5	Chinle/Alluvial Interface
		03/16/17	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	ND	NA	27.53	6,916.04	NA	29.5 - 39.5	Chinle/Alluvial Interface
		06/20/17	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	25.30	8.00	33.30	6,910.27	6,916.67	29.5 - 39.5	Chinle/Alluvial Interface
		09/19/17	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	25.46	6.19	31.65	6,911.92	6,916.87	29.5 - 39.5	Chinle/Alluvial Interface
		12/12/17	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	24.75	9.25	34.00	6,909.57	6,916.97	29.5 - 39.5	Chinle/Alluvial Interface
		02/09/18	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	25.50	8.10	33.60	6,909.97	6,916.45	29.5 - 39.5	Chinle/Alluvial Interface
		04/25/18	4.00	6,941.53	6,943.57	2.04	6,903.98	39.59	26.62	5.72	32.34	6,911.23	6,915.81	29.5 - 39.5	Chinle/Alluvial Interface
		08/16/18	4.00	6,941.53	6,943.57	2.04	6,903.98	39.51	27.20	5.38	32.58	6,910.99	6,915.29	29.5 - 39.5	Chinle/Alluvial Interface
		11/07/18	4.00	6,941.53	6,943.57	2.04	6,903.98	NM	NM	NA	NM	NA	NA	29.5 - 39.5	Chinle/Alluvial Interface
		03/28/19	4.00	6,941.53	6,943.57	2.04	6,903.98	NM	NM	NA	NM	NA	NA	29.5 - 39.5	Chinle/Alluvial Interface
		05/08/19	4.00	6,941.53	6,943.57	2.04	6,903.98	NM	NM	NA	NM	NA	NA	29.5 - 39.5	Chinle/Alluvial Interface
		08/16/19	4.00	6,941.53	6,943.57	2.04	6,903.98	NM	NM	NA	NM	NA	NA	29.5 - 39.5	Chinle/Alluvial Interface
		11/01/19	4.00	6,941.53	6,943.57	2.04	6,903.98	NM	NM	NA	NM	NA	NA	29.5 - 39.5	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
08/27/97	RW-6	03/23/15	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	29.18	6,914.83	NA	28.5 - 38.5	Chinle/Alluvial Interface
	RW-6	06/09/15	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	28.68	6,915.33	NA	28.5 - 38.5	Chinle/Alluvial Interface
		08/23/15	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	29.06	6,914.95	NA	28.5 - 38.5	Chinle/Alluvial Interface
		10/29/15	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	27.97	6,916.04	NA	28.5 - 38.5	Chinle/Alluvial Interface
		03/04/16	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	28.25	6,915.76	NA	28.5 - 38.5	Chinle/Alluvial Interface
		06/07/16	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	28.24	6,915.77	NA	28.5 - 38.5	Chinle/Alluvial Interface
		09/13/16	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	27.99	6,916.02	NA	28.5 - 38.5	Chinle/Alluvial Interface
		11/16/16	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	27.72	6,916.29	NA	28.5 - 38.5	Chinle/Alluvial Interface
		03/16/17	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	ND	NA	27.57	6,916.44	NA	28.5 - 38.5	Chinle/Alluvial Interface
		06/20/17	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	25.50	8.12	33.62	6,910.39	6,916.89	28.5 - 38.5	Chinle/Alluvial Interface
		09/19/17	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	25.89	5.08	30.97	6,913.04	6,917.10	28.5 - 38.5	Chinle/Alluvial Interface
		12/12/17	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	24.83	9.02	33.85	6,910.16	6,917.38	28.5 - 38.5	Chinle/Alluvial Interface
		02/09/18	4.00	6,941.96	6,944.01	2.05	6,903.11	40.90	25.65	7.40	33.05	6,910.96	6,916.88	28.5 - 38.5	Chinle/Alluvial Interface
		04/25/18	4.00	6,941.96	6,944.01	2.05	6,903.11	40.83	26.93	4.76	31.69	6,912.32	6,916.13	28.5 - 38.5	Chinle/Alluvial Interface
		08/16/18	4.00	6,941.96	6,944.01	2.05	6,903.11	40.85	27.43	4.35	31.78	6,912.23	6,915.71	28.5 - 38.5	Chinle/Alluvial Interface
		11/07/18	4.00	6,941.96	6,944.01	2.05	6,903.11	NM	NM	NA	NM	NA	NA	28.5 - 38.5	Chinle/Alluvial Interface
		03/28/19	4.00	6,941.96	6,944.01	2.05	6,903.11	NM	NM	NA	NM	NA	NA	28.5 - 38.5	Chinle/Alluvial Interface
		05/08/19	4.00	6,941.96	6,944.01	2.05	6,903.11	NM	NM	NA	NM	NA	NA	28.5 - 38.5	Chinle/Alluvial Interface
		08/16/19	4.00	6,941.96	6,944.01	2.05	6,903.11	NM	NM	NA	NM	NA	NA	28.5 - 38.5	Chinle/Alluvial Interface
		11/01/19	4.00	6,941.96	6,944.01	2.05	6,903.11	NM	NM	NA	NM	NA	NA	28.5 - 38.5	Chinle/Alluvial Interface
09/26/85	SMW-2	08/10/15	2.00	6,881.63	6,883.97	2.34	6,831.17	52.80	ND	NA	24.88	6,859.09	NA	34.31 - 54.31	Chinle/Alluvial Interface and Upper Sand Well
	SMW-2	09/09/16	2.00	6,881.63	6,883.97	2.34	6,831.17	52.80	ND	NA	24.84	6,859.13	NA	34.31 - 54.31	Chinle/Alluvial Interface and Upper Sand Well
		09/11/17	2.00	6,881.63	6,883.97	2.34	6,831.17	52.80	ND	NA	24.79	6,859.18	NA	34.31 - 54.31	Chinle/Alluvial Interface and Upper Sand Well
		08/15/18	2.00	6,881.63	6,883.97	2.34	6,831.17	52.80	ND	NA	24.49	6,859.48	NA	34.31 - 54.31	Chinle/Alluvial Interface and Upper Sand Well
		08/19/19	2.00	6,881.63	6,883.97	2.34	6,831.17	52.80	ND	NA	25.30	6,858.67	NA	34.31 - 54.31	Chinle/Alluvial Interface and Upper Sand Well



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
09/25/85	SMW-4	08/10/15	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.32	6,850.20	NA	51.7 - 71.7	Chinle/Alluvial Interface
		09/06/16	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.00	6,850.52	NA	51.7 - 71.7	Chinle/Alluvial Interface
		09/11/17	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.33	6,850.19	NA	51.7 - 71.7	Chinle/Alluvial Interface
		08/15/18	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.04	6,850.48	NA	51.7 - 71.7	Chinle/Alluvial Interface
		12/06/18	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.25	6,850.27	NA	51.7 - 71.7	Chinle/Alluvial Interface
	STP1-NW	08/13/19	2.00	6,877.63	6,879.52	1.89	6,809.84	69.68	ND	NA	29.10	6,850.42	NA	51.7 - 71.7	Chinle/Alluvial Interface
05/06/14		03/10/15	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.74	6,883.73	NA	20 - 50	Chinle/Alluvial Interface
		06/02/15	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.72	6,883.75	NA	20 - 50	Chinle/Alluvial Interface
		08/11/15	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.79	6,883.68	NA	20 - 50	Chinle/Alluvial Interface
		10/29/15	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.60	6,883.87	NA	20 - 50	Chinle/Alluvial Interface
		03/01/16	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.55	6,883.92	NA	20 - 50	Chinle/Alluvial Interface
		06/07/16	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.89	6,883.58	NA	20 - 50	Chinle/Alluvial Interface
		09/09/16	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	21.20	6,883.27	NA	20 - 50	Chinle/Alluvial Interface
		11/14/16	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	21.02	6,883.45	NA	20 - 50	Chinle/Alluvial Interface
		02/21/17	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.47	6,884.00	NA	20 - 50	Chinle/Alluvial Interface
		06/02/17	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.66	6,883.81	NA	20 - 50	Chinle/Alluvial Interface
		09/05/17	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.81	6,883.66	NA	20 - 50	Chinle/Alluvial Interface
		12/04/17	2.00	6,904.50	6,904.47	-0.03	6,854.47	49.74	ND	NA	20.55	6,883.92	NA	20 - 50	Chinle/Alluvial Interface
		02/09/18	2.00	6,904.50	6,904.47	-0.03	6,854.47	49.73	ND	NA	20.55	6,883.92	NA	20 - 50	Chinle/Alluvial Interface
		04/26/18	2.00	6,904.50	6,904.47	-0.03	6,854.47	49.65	ND	NA	20.64	6,883.83	NA	20 - 50	Chinle/Alluvial Interface
		08/15/18	2.00	6,904.50	6,904.47	-0.03	6,854.47	49.78	ND	NA	20.92	6,883.55	NA	20 - 50	Chinle/Alluvial Interface
		11/19/18	2.00	6,904.50	6,904.47	-0.03	6,854.47	NM	NM	NA	NM	NA	NA	20 - 50	Chinle/Alluvial Interface
		02/13/19	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.35	6,884.12	NA	20 - 50	Chinle/Alluvial Interface
		05/08/19	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	19.54	6,884.93	NA	20 - 50	Chinle/Alluvial Interface
		08/21/19	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.79	6,883.68	NA	20 - 50	Chinle/Alluvial Interface
		10/22/19	2.00	6,904.50	6,904.47	-0.03	6,854.47	50.00	ND	NA	20.76	6,883.71	NA	20 - 50	Chinle/Alluvial Interface



TABLE 9.1  
5-YEAR HISTORICAL DTB/DTW MEASUREMENTS - NON MKTF WELLS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
05/06/14	STP1-SW	03/10/15	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		06/02/15	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		08/11/15	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		10/29/15	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		03/08/16	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		06/07/16	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		09/09/16	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		11/14/16	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	ND	NA	DRY	DRY	NA	15 - 30	Chinle/Alluvial Interface
		02/21/17	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		06/02/17	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		09/05/17	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		12/04/17	2.00	6,912.40	6,912.38	-0.02	6,880.38	29.10	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		02/09/18	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		04/26/18	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		08/15/18	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		11/19/18	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		02/13/19	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		05/08/19	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		08/21/19	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface
		10/22/19	2.00	6,912.40	6,912.38	-0.02	6,854.47	NM	NM	NA	NM	NA	NA	15 - 30	Chinle/Alluvial Interface

DEFINITIONS:

- DTB - Depth to Bottom
- DTW - Depth to Water
- SPH = Separate Phase Hydrocarbons
- \* Wells also checked for Artesian flow conditions.
- NA = Not Applicable
- NS = Not Surveyed
- NM = Not Measured
- Negative number in Stick up Length column indicates well is flushmount and located at or below ground level.
- Depth to Water Column - if 0.00 is indicated - means water is at top of casing (full) under artesian flow conditions.
- Dry indicates no water was detected.

NOTES:

1. Corrected Water Table Elevation applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Groundwater Elevation)

12/06/18	- 10-Year Post Closure Sampling Event for the LTU (Land Treatment Unit)
02/09/18	- Was not able to gauge or sample wells around the NAPIS Unit due to elevated H <sub>2</sub> S readings in the ambient air.
11/07/18	- Did not gauge or sample wells due to recovery apparatus installed on all the RW wells.



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/14/13	MKTF-01	03/11/15	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	5.85	6,914.82	NA	5 - 15
		06/09/15	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	7.15	6,913.52	NA	5 - 15
		08/21/15	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	6.23	6,914.44	NA	5 - 15
		11/04/15	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	5.87	6,914.80	NA	5 - 15
		02/24/16	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	5.84	6,914.83	NA	5 - 15
		06/10/16	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	7.02	6,913.65	NA	5 - 15
		09/07/16	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	7.12	1.50	8.62	6,912.05	6,913.25	5 - 15
		11/04/16	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	ND	NA	5.87	6,914.80	NA	5 - 15
		03/14/17	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.65	0.16	4.81	6,915.86	6,915.99	5 - 15
		06/07/17	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.89	0.53	5.42	6,915.25	6,915.67	5 - 15
		10/03/17	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	6.20	0.36	6.56	6,914.11	6,914.40	5 - 15
		11/20/17	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.62	0.33	4.95	6,915.72	6,915.98	5 - 15
		02/07/18	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	5.05	0.35	5.40	6,915.27	6,915.55	5 - 15
		04/25/18	4.00	6,918.28	6,920.67	2.39	6,903.32	17.35	6.22	0.30	6.52	6,914.15	6,914.39	5 - 15
		08/15/18	4.00	6,918.28	6,920.67	2.39	6,903.40	17.27	6.40	0.31	6.71	6,913.96	6,914.21	5 - 15
		11/27/18	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	5.50	0.37	5.87	6,914.80	6,915.10	5 - 15
		02/19/19	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.40	0.34	4.74	6,915.93	6,916.20	5 - 15
		05/06/19	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.39	0.35	4.74	6,915.93	6,916.21	5 - 15
		08/30/19	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	4.58	0.37	4.95	6,915.72	6,916.02	5 - 15
		11/19/19	4.00	6,918.28	6,920.67	2.39	6,903.25	17.42	5.14	0.31	5.45	6,915.22	6,915.47	5 - 15



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/14/13	MKTF-02	03/11/15	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	6.88	6,910.57	NA	7 - 17
		06/09/15	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.55	6,909.90	NA	7 - 17
		08/21/15	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.30	6,910.15	NA	7 - 17
		11/04/15	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.25	6,910.20	NA	7 - 17
		02/24/16	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.22	6,910.23	NA	7 - 17
		06/10/16	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	8.09	6,909.36	NA	7 - 17
		09/07/16	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	8.28	6,909.17	NA	7 - 17
		11/04/16	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.25	6,910.20	NA	7 - 17
		03/16/17	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	7.34	6,910.11	NA	7 - 17
		06/07/17	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	7.10	0.01	7.11	6,910.34	6,910.35	7 - 17
		10/03/17	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	6.67	6,910.78	NA	7 - 17
		11/20/17	4.00	6,915.00	6,917.45	2.45	6,897.10	20.35	ND	NA	7.00	6,910.45	NA	7 - 17
		02/06/18	4.00	6,915.00	6,917.45	2.45	6,897.11	20.34	ND	NA	7.44	6,910.01	NA	7 - 17
		04/25/18	4.00	6,915.00	6,917.45	2.45	6,897.09	20.36	ND	NA	7.95	6,909.50	NA	7 - 17
		08/15/18	4.00	6,915.00	6,917.45	2.45	6,897.02	20.43	ND	NA	8.40	6,909.05	NA	7 - 17
		11/27/18	4.00	6,915.00	6,917.45	2.45	6,897.10	20.35	ND	NA	8.40	6,909.05	NA	7 - 17
		03/28/19	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	6.34	6,911.11	NA	7 - 17
		05/06/19	4.00	6,915.00	6,917.45	2.45	6,896.97	20.48	ND	NA	6.24	6,911.21	NA	7 - 17
		08/23/19	4.00	6,915.00	6,917.45	2.45	6,897.02	20.43	ND	NA	7.05	6,910.40	NA	7 - 17
		11/19/19	4.00	6,915.00	6,917.45	2.45	6,897.10	20.35	ND	NA	7.14	6,910.31	NA	7 - 17



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/07/13	MKTF-03	03/17/15	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.46	0.80	9.26	6,922.43	6,923.07	3 - 18
		06/04/15	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.70	0.62	9.32	6,922.37	6,922.87	3 - 18
		08/18/15	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.09	0.82	8.91	6,922.78	6,923.44	3 - 18
		11/03/15	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.30	1.10	9.40	6,922.29	6,923.17	3 - 18
		03/17/16	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.46	0.80	9.26	6,922.43	6,923.07	3 - 18
		06/09/16	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	7.55	4.28	11.83	6,919.86	6,923.28	3 - 18
		09/12/16	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	7.92	2.40	10.32	6,921.37	6,923.29	3 - 18
		11/03/16	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	8.30	1.10	9.40	6,922.29	6,923.17	3 - 18
		03/02/17	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	6.42	1.17	7.59	6,924.10	6,925.04	3 - 18
		06/07/17	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	6.95	1.30	8.25	6,923.44	6,924.48	3 - 18
		09/26/17	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	6.35	0.80	7.15	6,924.54	6,925.18	3 - 18
		11/28/17	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	7.00	0.95	7.95	6,923.74	6,924.50	3 - 18
		02/08/18	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	7.40	0.85	8.25	6,923.44	6,924.12	3 - 18
		04/25/18	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	7.30	0.92	8.22	6,923.47	6,924.21	3 - 18
		08/16/18	4.00	6,931.73	6,931.69	-0.04	6,913.16	18.53	7.30	0.95	8.25	6,923.44	6,924.20	3 - 18
		11/19/18	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	6.85	1.00	7.85	6,923.84	6,924.64	3 - 18
		03/25/19	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	4.50	1.10	5.60	6,926.09	6,926.97	3 - 18
		05/13/19	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	4.55	1.11	5.66	6,926.03	6,926.92	3 - 18
		08/21/19	4.00	6,931.73	6,931.69	-0.04	6,913.16	18.53	6.04	1.23	7.27	6,924.42	6,925.40	3 - 18
		10/30/19	4.00	6,931.73	6,931.69	-0.04	6,913.24	18.45	6.70	1.30	8.00	6,923.69	6,924.73	3 - 18



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/13	MKTF-04	03/16/15	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.25	6,923.32	NA	10 - 22
		06/04/15	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	11.00	6,922.57	NA	10 - 22
		08/18/15	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.64	6,922.93	NA	10 - 22
		11/03/15	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	4.23	6,929.34	NA	10 - 22
		02/29/16	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.68	6,922.89	NA	10 - 22
		06/09/16	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.30	6,923.27	NA	10 - 22
		09/11/16	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.23	6,923.34	NA	10 - 22
		11/03/16	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	10.40	6,923.17	NA	10 - 22
		03/02/17	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	8.31	6,925.26	NA	10 - 22
		06/07/17	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	9.28	6,924.29	NA	10 - 22
		09/26/17	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	8.80	6,924.77	NA	10 - 22
		11/29/17	4.00	6,933.90	6,933.57	-0.33	6,911.27	22.30	ND	NA	9.30	6,924.27	NA	10 - 22
		02/14/18	4.00	6,933.90	6,933.57	-0.33	6,911.20	22.37	ND	NA	9.85	6,923.72	NA	10 - 22
		04/25/18	4.00	6,933.90	6,933.57	-0.33	6,911.28	22.29	ND	NA	9.70	6,923.87	NA	10 - 22
		08/16/18	4.00	6,933.90	6,933.57	-0.33	6,911.18	22.39	ND	NA	9.70	6,923.87	NA	10 - 22
		11/19/18	4.00	6,933.90	6,933.57	-0.33	6,911.27	22.30	ND	NA	8.39	6,925.18	NA	10 - 22
		03/25/19	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	6.45	6,927.12	NA	10 - 22
		05/13/19	4.00	6,933.90	6,933.57	-0.33	6,911.42	22.15	ND	NA	6.55	6,927.02	NA	10 - 22
		08/21/19	4.00	6,933.90	6,933.57	-0.33	6,911.18	22.39	ND	NA	8.27	6,925.30	NA	10 - 22
		10/30/19	4.00	6,933.90	6,933.57	-0.33	6,911.27	22.30	ND	NA	8.93	6,924.64	NA	10 - 22



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/20/13	MKTF-05	03/16/15	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.72	0.36	16.08	6,926.14	6,926.43	4 - 14
		06/04/15	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.77	0.63	16.40	6,925.82	6,926.32	4 - 14
		08/18/15	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.44	0.19	15.63	6,926.59	6,926.74	4 - 14
		11/03/15	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.47	0.84	16.31	6,925.91	6,926.58	4 - 14
		03/16/16	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.72	0.36	16.08	6,926.14	6,926.43	4 - 14
		06/09/16	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.34	0.53	15.87	6,926.35	6,926.77	4 - 14
		09/11/16	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	14.74	3.04	17.78	6,924.44	6,926.87	4 - 14
		11/03/16	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	15.47	0.84	16.31	6,925.91	6,926.58	4 - 14
		03/02/17	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.33	0.29	13.62	6,928.60	6,928.83	4 - 14
		06/07/17	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.79	0.46	14.25	6,927.97	6,928.34	4 - 14
		09/26/17	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.01	0.49	13.50	6,928.72	6,929.11	4 - 14
		11/28/17	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.98	0.77	14.75	6,927.47	6,928.09	4 - 14
		02/08/18	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	14.78	0.42	15.20	6,927.02	6,927.36	4 - 14
		04/25/18	4.00	6,939.49	6,942.22	2.73	6,924.52	17.70	14.96	0.23	15.19	6,927.03	6,927.21	4 - 14
		08/16/18	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	14.61	0.19	14.80	6,927.42	6,927.57	4 - 14
		11/19/18	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	14.62	0.21	14.83	6,927.39	6,927.56	4 - 14
		02/19/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.87	0.10	13.97	6,928.25	6,928.33	4 - 14
		05/13/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	12.95	0.17	13.12	6,929.10	6,929.24	4 - 14
		08/30/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.40	0.20	13.60	6,928.62	6,928.78	4 - 14
		10/30/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	13.90	0.30	14.20	6,928.02	6,928.26	4 - 14
		11/12/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	11.64	5.09	16.73	6,925.49	6,929.56	4 - 14
		11/13/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	10.96	6.19	17.15	6,925.07	6,930.02	4 - 14
		11/14/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	10.78	6.39	17.17	6,925.05	6,930.16	4 - 14
		11/15/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	10.54	6.62	17.16	6,925.06	6,930.36	4 - 14
		11/19/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	10.04	7.14	17.18	6,925.04	6,930.75	4 - 14
		11/21/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	9.97	7.21	17.18	6,925.04	6,930.81	4 - 14
		12/02/19	4.00	6,939.49	6,942.22	2.73	6,924.47	17.75	10.64	6.53	17.17	6,925.05	6,930.27	4 - 14



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/13	MKTF-06	03/16/15	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.24	1.70	19.94	6,926.87	6,928.23	8 - 20
		06/04/15	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.56	0.84	19.40	6,927.41	6,928.08	8 - 20
		08/15/15	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	17.53	0.86	18.39	6,928.42	6,929.11	8 - 20
		11/03/15	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.04	0.74	18.78	6,928.03	6,928.62	8 - 20
		03/16/16	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.24	1.70	19.94	6,926.87	6,928.23	8 - 20
		06/09/16	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.02	0.94	18.96	6,927.85	6,928.60	8 - 20
		09/11/16	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	17.40	1.08	18.48	6,928.33	6,929.19	8 - 20
		11/03/16	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	18.04	0.74	18.78	6,928.03	6,928.62	8 - 20
		03/15/17	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	15.95	0.10	16.05	6,930.76	6,930.84	8 - 20
		06/12/17	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.60	0.64	17.24	6,929.57	6,930.08	8 - 20
		09/26/17	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.01	0.71	16.72	6,930.09	6,930.66	8 - 20
		11/28/17	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.55	1.15	17.70	6,929.11	6,930.03	8 - 20
		02/08/18	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	17.14	1.38	18.52	6,928.29	6,929.39	8 - 20
		04/25/18	4.00	6,944.24	6,946.81	2.57	6,923.09	23.72	17.29	1.32	18.61	6,928.20	6,929.26	8 - 20
		08/16/18	4.00	6,944.24	6,946.81	2.57	6,923.02	23.79	16.83	1.17	18.00	6,928.81	6,929.75	8 - 20
		11/19/18	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.85	1.16	18.01	6,928.80	6,929.73	8 - 20
		02/19/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	15.79	0.76	16.55	6,930.26	6,930.87	8 - 20
		05/13/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	15.55	0.84	16.39	6,930.42	6,931.09	8 - 20
		08/30/19	4.00	6,944.24	6,946.81	2.57	6,923.02	23.79	15.82	0.78	16.60	6,930.21	6,930.83	8 - 20
		10/30/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.80	1.11	17.91	6,928.90	6,929.79	8 - 20
		11/12/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.52	0.96	17.48	6,929.33	6,930.10	8 - 20
		11/13/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.33	0.85	17.18	6,929.63	6,930.31	8 - 20
		11/14/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.42	0.89	17.31	6,929.50	6,930.21	8 - 20
		11/15/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.35	0.85	17.20	6,929.61	6,930.29	8 - 20
		11/19/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	16.08	0.75	16.83	6,929.98	6,930.58	8 - 20
		11/21/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	15.93	1.31	17.24	6,929.57	6,930.62	8 - 20
		12/02/19	4.00	6,944.24	6,946.81	2.57	6,923.04	23.77	14.75	6.61	21.36	6,925.45	6,930.74	8 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/13	MKTF-07	03/16/15	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	13.10	1.13	14.23	6,932.95	6,933.85	4 - 14
		06/04/15	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.95	1.65	14.60	6,932.58	6,933.90	4 - 14
		08/18/15	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.71	1.13	13.84	6,933.34	6,934.24	4 - 14
		11/03/15	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.90	1.98	14.88	6,932.30	6,933.88	4 - 14
		03/16/16	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	13.10	1.13	14.23	6,932.95	6,933.85	4 - 14
		06/09/16	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.01	2.59	14.60	6,932.58	6,934.65	4 - 14
		09/11/16	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.20	2.41	14.61	6,932.57	6,934.50	4 - 14
		11/03/16	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.90	1.98	14.88	6,932.30	6,933.88	4 - 14
		03/15/17	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.63	1.97	12.60	6,934.58	6,936.16	4 - 14
		06/12/17	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.20	1.30	11.50	6,935.68	6,936.72	4 - 14
		09/26/17	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	9.80	1.30	11.10	6,936.08	6,937.12	4 - 14
		11/28/17	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.40	1.40	11.80	6,935.38	6,936.50	4 - 14
		02/08/18	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	11.33	1.22	12.55	6,934.63	6,935.61	4 - 14
		04/25/18	4.00	6,944.40	6,947.18	2.78	6,929.60	17.58	10.84	1.18	12.02	6,935.16	6,936.10	4 - 14
		08/16/18	4.00	6,944.40	6,947.18	2.78	6,929.71	17.47	11.42	1.08	12.50	6,934.68	6,935.54	4 - 14
		11/27/18	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.35	1.17	13.52	6,933.66	6,934.60	4 - 14
		02/19/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.39	1.21	11.60	6,935.58	6,936.55	4 - 14
		05/13/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.72	0.10	10.82	6,936.36	6,936.44	4 - 14
		08/30/19	4.00	6,944.40	6,947.18	2.78	6,929.71	17.47	11.18	1.11	12.29	6,934.89	6,935.78	4 - 14
		10/30/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.20	1.19	13.39	6,933.79	6,934.74	4 - 14
		11/12/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.03	1.16	13.19	6,933.99	6,934.92	4 - 14
		11/13/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	11.81	1.08	12.89	6,934.29	6,935.15	4 - 14
		11/14/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	11.98	1.16	13.14	6,934.04	6,934.97	4 - 14
		11/15/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	12.00	1.16	13.16	6,934.02	6,934.95	4 - 14
		11/19/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	11.40	2.77	14.17	6,933.01	6,935.23	4 - 14
		11/21/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	10.83	5.72	16.55	6,930.63	6,935.21	4 - 14
		12/02/19	4.00	6,944.40	6,947.18	2.78	6,929.56	17.62	11.38	5.74	17.12	6,930.06	6,934.65	4 - 14



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/13	MKTF-08	03/16/15	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	14.25	0.25	14.50	6,932.59	6,932.79	8 - 18
		06/04/15	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	14.35	0.56	14.91	6,932.18	6,932.63	8 - 18
		08/18/15	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.79	0.96	14.75	6,932.34	6,933.11	8 - 18
		11/08/15	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.84	1.48	15.32	6,931.77	6,932.95	8 - 18
		03/16/16	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	14.25	0.25	14.50	6,932.59	6,932.79	8 - 18
		06/09/16	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.48	0.70	14.18	6,932.91	6,933.47	8 - 18
		09/11/16	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.63	0.66	14.29	6,932.80	6,933.33	8 - 18
		11/08/16	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.84	1.48	15.32	6,931.77	6,932.95	8 - 18
		03/15/17	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	11.99	0.61	12.60	6,934.49	6,934.98	8 - 18
		06/12/17	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	11.98	0.42	12.40	6,934.69	6,935.03	8 - 18
		09/26/17	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	12.15	0.45	12.60	6,934.49	6,934.85	8 - 18
		11/28/17	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	12.68	0.52	13.20	6,933.89	6,934.31	8 - 18
		02/08/18	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.29	0.34	13.63	6,933.46	6,933.73	8 - 18
		04/25/18	4.00	6,944.02	6,947.09	3.07	6,925.15	21.94	13.00	0.33	13.33	6,933.76	6,934.02	8 - 18
		08/16/18	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	12.96	0.39	13.35	6,933.74	6,934.05	8 - 18
		11/27/18	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.41	0.39	13.80	6,933.29	6,933.60	8 - 18
		02/19/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	11.35	0.65	12.00	6,935.09	6,935.61	8 - 18
		05/13/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	11.95	0.48	12.43	6,934.66	6,935.04	8 - 18
		08/30/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	12.50	0.40	12.90	6,934.19	6,934.51	8 - 18
		10/30/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.54	0.45	13.99	6,933.10	6,933.46	8 - 18
		11/21/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.47	0.38	13.85	6,933.24	6,933.54	8 - 18
		12/02/19	4.00	6,944.02	6,947.09	3.07	6,925.11	21.98	13.72	0.41	14.13	6,932.96	6,933.29	8 - 18



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/13	MKTF-09	03/16/15	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.48	6,932.02	NA	7 - 19
		06/04/15	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.68	6,931.82	NA	7 - 19
		08/18/15	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.49	6,932.01	NA	7 - 19
		11/03/15	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.29	6,932.21	NA	7 - 19
		02/29/16	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.15	6,932.35	NA	7 - 19
		06/09/16	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	13.92	6,932.58	NA	7 - 19
		09/11/16	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.20	6,932.30	NA	7 - 19
		11/03/16	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	14.29	6,932.21	NA	7 - 19
		03/15/17	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19
		06/12/17	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19
		09/28/17	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	12.69	6,933.81	NA	7 - 19
		11/29/17	4.00	6,943.57	6,946.50	2.93	6,923.75	22.75	ND	NA	13.15	6,933.35	NA	7 - 19
		02/14/18	4.00	6,943.57	6,946.50	2.93	6,923.76	22.74	ND	NA	13.76	6,932.74	NA	7 - 19
		04/25/18	4.00	6,943.57	6,946.50	2.93	6,923.81	22.69	ND	NA	13.42	6,933.08	NA	7 - 19
		08/16/18	4.00	6,943.57	6,946.50	2.93	6,923.76	22.74	ND	NA	13.49	6,933.01	NA	7 - 19
		11/27/18	4.00	6,943.57	6,946.50	2.93	6,923.75	22.75	ND	NA	13.81	6,932.69	NA	7 - 19
		03/25/19	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	11.10	6,935.40	NA	7 - 19
		05/13/19	4.00	6,943.57	6,946.50	2.93	6,923.80	22.70	ND	NA	12.27	6,934.23	NA	7 - 19
		08/28/19	4.00	6,943.57	6,946.50	2.93	6,923.76	22.74	ND	NA	13.28	6,933.22	NA	7 - 19
		11/18/19	4.00	6,943.57	6,946.50	2.93	6,923.75	22.75	ND	NA	13.97	6,932.53	NA	7 - 19



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/31/13	MKTF-10	03/16/15	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.96	6,928.20	NA	7 - 17
		06/04/15	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.82	6,928.34	NA	7 - 17
		08/18/15	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.72	6,928.44	NA	7 - 17
		11/03/15	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.84	6,928.32	NA	7 - 17
		02/29/16	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.60	6,928.56	NA	7 - 17
		06/09/16	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.20	6,928.96	NA	7 - 17
		09/11/16	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.45	6,928.71	NA	7 - 17
		11/03/16	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	8.84	6,928.32	NA	7 - 17
		03/02/17	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	7.47	6,929.69	NA	7 - 17
		06/07/17	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	7.02	6,930.14	NA	7 - 17
		09/27/17	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	6.78	6,930.38	NA	7 - 17
		11/29/17	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	7.00	6,930.16	NA	7 - 17
		02/14/18	4.00	6,937.51	6,937.16	-0.35	6,921.06	16.10	ND	NA	7.30	6,929.86	NA	7 - 17
		04/25/18	4.00	6,937.51	6,937.16	-0.35	6,921.11	16.05	ND	NA	7.05	6,930.11	NA	7 - 17
		08/16/18	4.00	6,937.51	6,937.16	-0.35	6,920.88	16.28	ND	NA	7.08	6,930.08	NA	7 - 17
		11/19/18	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	7.25	6,929.91	NA	7 - 17
		03/25/19	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	5.70	6,931.46	NA	7 - 17
		05/13/19	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	6.23	6,930.93	NA	7 - 17
		08/21/19	4.00	6,937.51	6,937.16	-0.35	6,920.88	16.28	ND	NA	7.65	6,929.51	NA	7 - 17
		10/30/19	4.00	6,937.51	6,937.16	-0.35	6,921.17	15.99	ND	NA	7.28	6,929.88	NA	7 - 17



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/31/13	MKTF-11	03/16/15	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.80	6,922.54	NA	8 - 18
		06/04/15	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	9.00	6,922.34	NA	8 - 18
		08/18/15	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.45	6,922.89	NA	8 - 18
		11/03/15	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.63	6,922.71	NA	8 - 18
		02/29/16	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.80	6,922.54	NA	8 - 18
		06/09/16	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.66	6,922.68	NA	8 - 18
		09/11/16	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.70	6,922.64	NA	8 - 18
		11/03/16	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.63	6,922.71	NA	8 - 18
		03/02/17	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	6.96	6,924.38	NA	8 - 18
		06/07/17	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	7.39	6,923.95	NA	8 - 18
		09/26/17	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	6.70	6,924.64	NA	8 - 18
		11/29/17	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	8.00	6,923.34	NA	8 - 18
		02/08/18	4.00	6,931.61	6,931.34	-0.27	6,913.03	18.31	ND	NA	7.87	6,923.47	NA	8 - 18
		04/25/18	4.00	6,931.61	6,931.34	-0.27	6,912.95	18.39	ND	NA	7.85	6,923.49	NA	8 - 18
		08/16/18	4.00	6,931.61	6,931.34	-0.27	6,912.86	18.48	ND	NA	7.48	6,923.86	NA	8 - 18
		11/19/18	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	7.20	6,924.14	NA	8 - 18
		03/25/19	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	4.96	6,926.38	NA	8 - 18
		05/13/19	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	5.24	6,926.10	NA	8 - 18
		08/21/19	4.00	6,931.61	6,931.34	-0.27	6,912.86	18.48	ND	NA	6.22	6,925.12	NA	8 - 18
		10/30/19	4.00	6,931.61	6,931.34	-0.27	6,913.20	18.14	ND	NA	7.06	6,924.28	NA	8 - 18



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/07/13	MKTF-12	03/12/15	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.13	1.81	20.94	6,921.17	6,922.62	12 - 22
		06/09/15	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.47	2.18	21.65	6,920.46	6,922.20	12 - 22
		08/18/15	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.46	0.53	19.99	6,922.12	6,922.54	12 - 22
		11/03/15	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.66	0.61	20.27	6,921.84	6,922.33	12 - 22
		03/12/16	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.13	1.81	20.94	6,921.17	6,922.62	12 - 22
		06/10/16	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.23	1.32	19.55	6,922.56	6,923.62	12 - 22
		09/10/16	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.23	0.32	19.55	6,922.56	6,922.82	12 - 22
		11/03/16	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.66	0.61	20.27	6,921.84	6,922.33	12 - 22
		03/15/17	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	17.75	0.06	17.81	6,924.30	6,924.35	12 - 22
		06/07/17	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.60	0.19	18.79	6,923.32	6,923.47	12 - 22
		10/03/17	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	17.30	0.13	17.43	6,924.68	6,924.78	12 - 22
		11/27/17	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.43	0.13	18.56	6,923.55	6,923.65	12 - 22
		02/07/18	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.11	0.17	19.28	6,922.83	6,922.97	12 - 22
		04/26/18	4.00	6,939.70	6,942.11	2.41	6,916.53	25.58	19.11	0.12	19.23	6,922.88	6,922.98	12 - 22
		08/15/18	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	19.01	0.19	19.20	6,922.91	6,923.06	12 - 22
		11/27/18	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.40	0.14	18.54	6,923.57	6,923.68	12 - 22
		03/26/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	16.65	0.35	17.00	6,925.11	6,925.39	12 - 22
		05/09/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	17.25	0.10	17.35	6,924.76	6,924.84	12 - 22
		08/20/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	17.92	0.09	18.01	6,924.10	6,924.17	12 - 22
		10/28/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.35	0.12	18.47	6,923.64	6,923.74	12 - 22
		11/12/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.14	0.08	18.22	6,923.89	6,923.95	12 - 22
		11/13/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.02	0.10	18.12	6,923.99	6,924.07	12 - 22
		11/14/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.11	0.08	18.19	6,923.92	6,923.98	12 - 22
		11/15/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.10	0.08	18.18	6,923.93	6,923.99	12 - 22
		11/19/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.00	0.09	18.09	6,924.02	6,924.09	12 - 22
		11/21/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.04	0.16	18.20	6,923.91	6,924.04	12 - 22
		12/02/19	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	17.70	0.05	17.75	6,924.36	6,924.40	12 - 22



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/13	MKTF-13	03/12/15	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.75	2.07	15.82	6,919.36	6,921.02	8 - 18
		06/09/15	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	14.22	1.65	15.87	6,919.31	6,920.63	8 - 18
		08/21/15	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.94	1.68	15.62	6,919.56	6,920.90	8 - 18
		11/03/15	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	14.22	1.33	15.55	6,919.63	6,920.69	8 - 18
		03/12/16	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.75	2.07	15.82	6,919.36	6,921.02	8 - 18
		06/10/16	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	12.99	1.20	14.19	6,920.99	6,921.95	8 - 18
		09/10/16	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.88	0.98	14.86	6,920.32	6,921.10	8 - 18
		11/03/16	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	14.22	1.33	15.55	6,919.63	6,920.69	8 - 18
		03/15/17	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.60	6,922.58	NA	8 - 18
		06/07/17	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.35	0.06	13.41	6,921.77	6,921.82	8 - 18
		10/03/17	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	11.91	0.03	11.94	6,923.24	6,923.26	8 - 18
		11/27/17	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.14	0.01	13.15	6,922.03	6,922.04	8 - 18
		02/07/18	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	13.77	0.01	13.78	6,921.40	6,921.41	8 - 18
		04/26/18	4.00	6,933.67	6,935.18	1.51	6,913.52	21.66	ND	NA	13.75	6,921.43	NA	8 - 18
		08/15/18	4.00	6,933.67	6,935.18	1.51	6,913.63	21.55	ND	NA	13.68	6,921.50	NA	8 - 18
		11/27/18	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.72	6,922.46	NA	8 - 18
		03/26/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	10.90	6,924.28	NA	8 - 18
		05/09/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	11.60	6,923.58	NA	8 - 18
		08/20/19	4.00	6,933.67	6,935.18	1.51	6,913.63	21.55	ND	NA	12.45	6,922.73	NA	8 - 18
		10/28/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.95	6,922.23	NA	8 - 18
		11/12/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.82	6,922.36	NA	8 - 18
		11/13/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.75	6,922.43	NA	8 - 18
		11/14/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.85	6,922.33	NA	8 - 18
		11/15/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.80	6,922.38	NA	8 - 18
		11/19/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.71	6,922.47	NA	8 - 18
		11/21/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.75	6,922.43	NA	8 - 18
		12/02/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	NA	12.40	6,922.78	NA	8 - 18



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/13	MKTF-14	03/12/15	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.60	0.55	8.15	6,919.87	6,920.31	4 - 14
		06/09/15	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	8.00	0.37	8.37	6,919.65	6,919.95	4 - 14
		08/21/15	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.61	0.42	8.03	6,919.99	6,920.33	4 - 14
		11/03/15	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.71	0.39	8.10	6,919.92	6,920.23	4 - 14
		03/12/16	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.60	0.55	8.15	6,919.87	6,920.31	4 - 14
		06/10/16	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.13	2.33	9.46	6,918.56	6,920.42	4 - 14
		09/10/16	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.31	1.69	9.00	6,919.02	6,920.37	4 - 14
		11/03/16	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	7.71	0.39	8.10	6,919.92	6,920.23	4 - 14
		03/08/17	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	5.77	0.98	6.75	6,921.27	6,922.05	4 - 14
		06/07/17	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	6.68	0.84	7.52	6,920.50	6,921.17	4 - 14
		10/03/17	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	5.70	0.41	6.11	6,921.91	6,922.24	4 - 14
		11/27/17	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	6.56	0.37	6.93	6,921.09	6,921.39	4 - 14
		02/07/18	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	6.98	0.41	7.39	6,920.63	6,920.96	4 - 14
		04/26/18	4.00	6,925.65	6,928.02	2.37	6,910.59	17.43	7.01	0.38	7.39	6,920.63	6,920.93	4 - 14
		08/15/18	4.00	6,925.65	6,928.02	2.37	6,910.57	17.45	6.95	0.35	7.30	6,920.72	6,921.00	4 - 14
		11/27/18	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	6.26	0.39	6.65	6,921.37	6,921.68	4 - 14
		03/25/19	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	3.89	0.36	4.25	6,923.77	6,924.06	4 - 14
		05/09/19	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	4.65	0.39	5.04	6,922.98	6,923.29	4 - 14
		08/20/19	4.00	6,925.65	6,928.02	2.37	6,910.57	17.45	5.64	0.28	5.92	6,922.10	6,922.32	4 - 14
		10/28/19	4.00	6,925.65	6,928.02	2.37	6,910.56	17.46	6.02	0.37	6.39	6,921.63	6,921.93	4 - 14



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/29/13	MKTF-15	03/16/15	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	13.17	0.75	13.92	6,929.56	6,930.16	9 - 19
		06/04/15	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	13.20	0.58	13.78	6,929.70	6,930.16	9 - 19
		08/18/15	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	13.09	0.25	13.34	6,930.14	6,930.34	9 - 19
		11/03/15	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.90	0.65	13.55	6,929.93	6,930.45	9 - 19
		03/16/16	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	13.17	0.75	13.92	6,929.56	6,930.16	9 - 19
		06/09/16	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.60	0.22	12.82	6,930.66	6,930.84	9 - 19
		09/11/16	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	ND	NA	13.00	6,930.48	NA	9 - 19
		11/03/16	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.90	0.65	13.55	6,929.93	6,930.45	9 - 19
		03/02/17	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	ND	NA	12.15	6,931.33	NA	9 - 19
		06/07/17	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	ND	NA	11.93	6,931.55	NA	9 - 19
		09/26/17	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.00	0.10	12.10	6,931.38	6,931.46	9 - 19
		11/29/17	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	ND	NA	12.13	6,931.35	NA	9 - 19
		02/08/18	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.40	0.07	12.47	6,931.01	6,931.07	9 - 19
		04/25/18	2.00	6,943.74	6,943.48	-0.26	6,924.08	19.40	ND	NA	12.20	6,931.28	NA	9 - 19
		08/16/18	2.00	6,943.74	6,943.48	-0.26	6,923.98	19.50	ND	NA	12.40	6,931.08	NA	9 - 19
		11/19/18	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.57	0.13	12.70	6,930.78	6,930.88	9 - 19
		03/25/19	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	10.98	0.02	11.00	6,932.48	6,932.50	9 - 19
		05/13/19	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	ND	NA	11.59	6,931.89	NA	9 - 19
		08/21/19	2.00	6,943.74	6,943.48	-0.26	6,923.98	19.50	12.02	0.01	12.03	6,931.45	NA	9 - 19
		10/30/19	2.00	6,943.74	6,943.48	-0.26	6,924.00	19.48	12.65	0.05	12.70	6,930.78	6,930.82	9 - 19



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/07/13	MKTF-16	03/16/15	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	10.93	6,939.65	NA	4 - 14
		06/08/15	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.86	6,941.72	NA	4 - 14
		08/23/15	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.79	6,940.79	NA	4 - 14
		11/03/15	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.49	6,941.09	NA	4 - 14
		02/29/16	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.90	6,940.68	NA	4 - 14
		06/08/16	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.58	6,941.00	NA	4 - 14
		09/11/16	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.65	6,940.93	NA	4 - 14
		11/03/16	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.49	6,941.09	NA	4 - 14
		03/14/17	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.45	6,943.13	NA	4 - 14
		06/07/17	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.66	6,942.92	NA	4 - 14
		09/26/17	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.00	6,942.58	NA	4 - 14
		11/28/17	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.22	6,942.36	NA	4 - 14
		02/14/18	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.80	6,941.78	NA	4 - 14
		04/25/18	2.00	6,951.00	6,950.58	-0.42	6,936.62	13.96	ND	NA	8.35	6,942.23	NA	4 - 14
		08/16/18	2.00	6,951.00	6,950.58	-0.42	6,936.50	14.08	ND	NA	8.55	6,942.03	NA	4 - 14
		11/29/18	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.54	6,941.04	NA	4 - 14
		02/20/19	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.05	6,943.53	NA	4 - 14
		05/13/19	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.35	6,942.23	NA	4 - 14
		08/21/19	2.00	6,951.00	6,950.58	-0.42	6,936.50	14.08	ND	NA	9.22	6,941.36	NA	4 - 14
		10/30/19	2.00	6,951.00	6,950.58	-0.42	6,936.48	14.10	ND	NA	9.89	6,940.69	NA	4 - 14



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/14/13	MKTF-17	03/12/15	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	12.81	6,932.95	NA	14 - 24
		06/08/15	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	13.40	6,932.36	NA	14 - 24
		08/18/15	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	11.98	6,933.78	NA	14 - 24
		11/03/15	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	12.34	6,933.42	NA	14 - 24
		02/25/16	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	11.82	6,933.94	NA	14 - 24
		06/10/16	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	11.30	6,934.46	NA	14 - 24
		09/12/16	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	12.40	6,933.36	NA	14 - 24
		11/03/16	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	12.34	6,933.42	NA	14 - 24
		03/08/17	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	8.20	6,937.56	NA	14 - 24
		06/14/17	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	9.98	6,935.78	NA	14 - 24
		09/26/17	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	9.33	6,936.43	NA	14 - 24
		11/30/17	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	ND	NA	13.68	6,932.08	NA	14 - 24
		02/15/18	2.00	6,945.79	6,945.76	-0.03	6,921.08	24.68	ND	NA	11.65	6,934.11	NA	14 - 24
		04/26/18	2.00	6,945.79	6,945.76	-0.03	6,921.21	24.55	ND	NA	12.28	6,933.48	NA	14 - 24
		08/15/18	2.00	6,945.79	6,945.76	-0.03	6,921.08	24.68	ND	NA	12.50	6,933.26	NA	14 - 24
		11/27/18	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	ND	NA	13.65	6,932.11	NA	14 - 24
		03/25/19	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	10.70	6,935.06	NA	14 - 24
		05/09/19	2.00	6,945.79	6,945.76	-0.03	6,921.65	24.11	ND	NA	14.05	6,931.71	NA	14 - 24
		08/19/19	2.00	6,945.79	6,945.76	-0.03	6,921.08	24.68	ND	NA	10.79	6,934.97	NA	14 - 24
		10/28/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	ND	NA	9.00	6,936.76	NA	14 - 24
		10/29/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	ND	NA	15.20	6,930.56	NA	14 - 24
		11/12/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	ND	NA	11.86	6,933.90	NA	14 - 24
		11/19/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	12.35	1.60	13.95	6,931.81	6,933.09	14 - 24
		11/21/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	12.42	2.88	15.30	6,930.46	6,932.76	14 - 24
		12/02/19	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	13.17	4.88	18.05	6,927.71	6,931.61	14 - 24



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/15/13	MKTF-18	03/17/15	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.92	6,941.73	NA	17 - 27
		06/08/15	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.86	6,941.79	NA	17 - 27
		08/18/15	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.83	6,941.82	NA	17 - 27
		11/03/15	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.52	6,942.13	NA	17 - 27
		02/26/16	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.34	6,942.31	NA	17 - 27
		06/10/16	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	11.85	6,938.80	NA	17 - 27
		09/12/16	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.75	6,942.90	NA	17 - 27
		11/03/16	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.52	6,942.13	NA	17 - 27
		03/01/17	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.81	6,942.84	NA	17 - 27
		06/14/17	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	6.30	6,944.35	NA	17 - 27
		09/27/17	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	6.35	0.02	6.37	6,944.28	6,944.30	17 - 27
		11/30/17	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	6.29	0.01	6.30	6,944.35	6,944.36	17 - 27
		02/15/18	2.00	6,950.97	6,950.65	-0.32	6,923.85	26.80	ND	NA	6.47	6,944.18	NA	17 - 27
		04/26/18	2.00	6,950.97	6,950.65	-0.32	6,923.95	26.70	ND	NA	8.22	6,942.43	NA	17 - 27
		08/16/18	2.00	6,950.97	6,950.65	-0.32	6,923.20	27.45	ND	NA	7.12	6,943.53	NA	17 - 27
		11/27/18	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.94	6,942.71	NA	17 - 27
		03/25/19	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.32	6,943.33	NA	17 - 27
		05/16/19	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.54	6,943.11	NA	17 - 27
		08/19/19	2.00	6,950.97	6,950.65	-0.32	6,923.20	27.45	7.71	0.01	7.72	6,942.93	6,942.94	17 - 27
		10/28/19	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	7.79	6,942.86	NA	17 - 27
		10/29/19	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.30	6,942.35	NA	17 - 27
		11/12/19	2.00	6,950.97	6,950.65	-0.32	6,925.27	25.38	ND	NA	8.19	6,942.46	NA	17 - 27



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/05/13	MKTF-19	03/12/15	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.91	6,932.76	NA	10 - 20
		06/08/15	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	12.47	6,932.20	NA	10 - 20
		08/18/15	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	13.76	6,930.91	NA	10 - 20
		11/03/15	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	12.95	6,931.72	NA	10 - 20
		02/25/16	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	12.62	6,932.05	NA	10 - 20
		06/10/16	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.90	6,932.77	NA	10 - 20
		09/12/16	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.25	6,933.42	NA	10 - 20
		11/03/16	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	12.84	6,931.83	NA	10 - 20
		03/08/17	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	9.82	6,934.85	NA	10 - 20
		06/14/17	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	10.58	6,934.09	NA	10 - 20
		09/26/17	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.00	6,933.67	NA	10 - 20
		11/30/17	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	11.70	6,932.97	NA	10 - 20
		02/15/18	2.00	6,944.89	6,944.67	-0.22	6,926.22	18.45	ND	NA	12.00	6,932.67	NA	10 - 20
		04/26/18	2.00	6,944.89	6,944.67	-0.22	6,926.48	18.19	ND	NA	12.05	6,932.62	NA	10 - 20
		08/15/18	2.00	6,944.89	6,944.67	-0.22	6,925.37	19.30	ND	NA	12.20	6,932.47	NA	10 - 20
		11/27/18	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	12.37	6,932.30	NA	10 - 20
		03/25/19	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.40	6,933.27	NA	10 - 20
		05/09/19	2.00	6,944.89	6,944.67	-0.22	6,927.20	17.47	ND	NA	11.31	6,933.36	NA	10 - 20
		08/19/19	2.00	6,944.89	6,944.67	-0.22	6,925.37	19.30	ND	NA	11.06	6,933.61	NA	10 - 20
		10/28/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	10.91	6,933.76	NA	10 - 20
		10/29/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	15.76	6,928.91	NA	10 - 20
		11/12/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	10.85	6,933.82	NA	10 - 20
		11/19/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	10.90	6,933.77	NA	10 - 20
		11/21/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	ND	NA	11.05	6,933.62	NA	10 - 20
		12/02/19	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	11.63	0.87	12.50	6,932.17	6,932.87	10 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
02/10/14	MKTF-20	03/16/15	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.26	6,944.52	NA	2 - 10
		06/08/15	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.89	6,943.89	NA	2 - 10
		08/23/15	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.79	6,943.99	NA	2 - 10
		11/09/15	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.78	6,944.00	NA	2 - 10
		02/29/16	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.81	6,943.97	NA	2 - 10
		06/08/16	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.23	6,944.55	NA	2 - 10
		09/11/16	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.65	6,944.13	NA	2 - 10
		11/09/16	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	7.78	6,944.00	NA	2 - 10
		03/14/17	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	5.70	6,946.08	NA	2 - 10
		06/12/17	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	5.57	6,946.21	NA	2 - 10
		09/26/17	4.00	6,951.89	6,951.78	-0.11	6,941.89	9.89	ND	NA	6.23	6,945.55	NA	2 - 10
		11/28/17	4.00	6,951.89	6,951.78	-0.11	6,942.20	9.58	ND	NA	6.53	6,945.25	NA	2 - 10
		02/14/18	4.00	6,951.89	6,951.78	-0.11	6,942.23	9.55	ND	NA	7.45	6,944.33	NA	2 - 10
		04/25/18	4.00	6,951.89	6,951.78	-0.11	6,942.28	9.50	ND	NA	6.90	6,944.88	NA	2 - 10
		08/16/18	4.00	6,951.89	6,951.78	-0.11	6,942.22	9.56	ND	NA	7.20	6,944.58	NA	2 - 10
		11/29/18	4.00	6,951.89	6,951.78	-0.11	6,942.20	9.58	ND	NA	7.52	6,944.26	NA	2 - 10
		02/20/19	4.00	6,951.89	6,951.78	-0.11	6,942.95	8.83	ND	NA	6.29	6,945.49	NA	2 - 10
		05/13/19	4.00	6,951.89	6,951.78	-0.11	6,942.95	8.83	ND	NA	7.14	6,944.64	NA	2 - 10
		08/20/19	4.00	6,951.89	6,951.78	-0.11	6,942.95	8.83	ND	NA	8.03	6,943.75	NA	2 - 10
		11/04/19	4.00	6,951.89	6,951.78	-0.11	6,942.95	8.83	ND	NA	7.68	6,944.10	NA	2 - 10



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
02/10/14	MKTF-21	03/16/15	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.62	6,944.95	NA	2 - 10
		06/10/15	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.96	6,944.61	NA	2 - 10
		08/23/15	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.62	6,944.95	NA	2 - 10
		11/09/15	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.46	6,945.11	NA	2 - 10
		02/29/16	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.24	6,945.33	NA	2 - 10
		06/08/16	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	6.98	6,945.59	NA	2 - 10
		09/11/16	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.62	6,944.95	NA	2 - 10
		11/09/16	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	7.46	6,945.11	NA	2 - 10
		03/14/17	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	5.50	6,947.07	NA	2 - 10
		06/21/17	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	5.09	6,947.48	NA	2 - 10
		09/26/17	4.00	6,952.68	6,952.57	-0.11	6,942.68	9.89	ND	NA	5.69	6,946.88	NA	2 - 10
		11/28/17	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	6.25	6,946.32	NA	2 - 10
		02/14/18	4.00	6,952.68	6,952.57	-0.11	6,943.77	8.80	ND	NA	6.88	6,945.69	NA	2 - 10
		04/25/18	4.00	6,952.68	6,952.57	-0.11	6,943.82	8.75	ND	NA	6.32	6,946.25	NA	2 - 10
		08/16/18	4.00	6,952.68	6,952.57	-0.11	6,943.77	8.80	ND	NA	6.05	6,946.52	NA	2 - 10
		11/29/18	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	7.52	6,945.05	NA	2 - 10
		02/20/19	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	5.62	6,946.95	NA	2 - 10
		05/13/19	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	6.70	6,945.87	NA	2 - 10
		08/20/19	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	7.22	6,945.35	NA	2 - 10
		10/30/19	4.00	6,952.68	6,952.57	-0.11	6,943.76	8.81	ND	NA	8.32	6,944.25	NA	2 - 10



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/08/13	MKTF-22	03/12/15	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.07	6,916.24	NA	22 - 32
		06/09/15	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.18	6,916.13	NA	22 - 32
		08/20/15	2.00	6,939.76	6,942.31	2.55	6,906.06	36.25	ND	NA	26.20	6,916.11	NA	22 - 32
		11/09/15	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.05	6,916.26	NA	22 - 32
		02/25/16	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.13	6,916.18	NA	22 - 32
		06/10/16	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.06	6,916.25	NA	22 - 32
		09/10/16	2.00	6,939.76	6,942.31	2.55	6,906.06	36.25	ND	NA	26.13	6,916.18	NA	22 - 32
		11/09/16	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	26.05	6,916.26	NA	22 - 32
		03/08/17	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	25.10	6,917.21	NA	22 - 32
		06/07/17	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	25.31	6,917.00	NA	22 - 32
		10/03/17	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	25.19	6,917.12	NA	22 - 32
		11/27/17	2.00	6,939.76	6,942.31	2.55	6,906.71	35.60	ND	NA	25.18	6,917.13	NA	22 - 32
		02/07/18	2.00	6,939.76	6,942.31	2.55	6,906.71	35.60	ND	NA	25.50	6,916.81	NA	22 - 32
		04/26/18	2.00	6,939.76	6,942.31	2.55	6,906.80	35.51	ND	NA	25.40	6,916.91	NA	22 - 32
		08/15/18	2.00	6,939.76	6,942.31	2.55	6,906.69	35.62	ND	NA	25.80	6,916.51	NA	22 - 32
		11/27/18	2.00	6,939.76	6,942.31	2.55	6,906.71	35.60	ND	NA	25.57	6,916.74	NA	22 - 32
		03/25/19	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	24.43	6,917.88	NA	22 - 32
		05/09/19	2.00	6,939.76	6,942.31	2.55	6,907.06	35.25	ND	NA	24.64	6,917.67	NA	22 - 32
		08/20/19	2.00	6,939.76	6,942.31	2.55	6,906.69	35.62	ND	NA	24.95	6,917.36	NA	22 - 32
		10/24/19	2.00	6,939.76	6,942.31	2.55	6,906.71	35.60	ND	NA	25.40	6,916.91	NA	22 - 32



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/04/13	MKTF-23	03/12/15	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.79	6,915.19	NA	7 - 17
		06/09/15	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	13.82	6,916.16	NA	7 - 17
		08/21/15	2.00	6,927.23	6,929.98	2.75	6,908.62	21.36	ND	NA	14.76	6,915.22	NA	7 - 17
		11/09/15	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.61	6,915.37	NA	7 - 17
		02/25/16	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.67	6,915.31	NA	7 - 17
		06/10/16	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.64	6,915.34	NA	7 - 17
		09/10/16	2.00	6,927.23	6,929.98	2.75	6,908.62	21.36	15.04	0.11	15.15	6,914.83	6,914.92	7 - 17
		11/09/16	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.61	6,915.37	NA	7 - 17
		03/08/17	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	14.20	6,915.78	NA	7 - 17
		06/07/17	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	14.20	0.70	14.90	6,915.08	6,915.64	7 - 17
		10/03/17	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	14.19	0.06	14.25	6,915.73	6,915.78	7 - 17
		11/27/17	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	13.93	0.01	13.94	6,916.04	6,916.05	7 - 17
		02/07/18	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	14.11	0.09	14.20	6,915.78	6,915.85	7 - 17
		04/26/18	2.00	6,927.23	6,929.98	2.75	6,909.71	20.27	14.07	0.02	14.09	6,915.89	6,915.91	7 - 17
		08/15/18	2.00	6,927.23	6,929.98	2.75	6,909.60	20.38	15.48	0.10	15.58	6,914.40	6,914.48	7 - 17
		11/27/18	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	14.20	0.04	14.24	6,915.74	6,915.77	7 - 17
		03/25/19	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	ND	12.55	6,917.43	NA	7 - 17
		05/09/19	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	12.95	0.07	13.02	6,916.96	6,917.02	7 - 17
		08/20/19	2.00	6,927.23	6,929.98	2.75	6,909.60	20.38	13.47	0.03	13.50	6,916.48	6,916.50	7 - 17
		10/28/19	2.00	6,927.23	6,929.98	2.75	6,909.62	20.36	ND	NA	13.95	6,916.03	NA	7 - 17



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/29/13	MKTF-24	03/11/15	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.54	6,907.18	NA	18 - 28
		06/10/15	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.65	6,907.07	NA	18 - 28
		08/20/15	2.00	6,926.07	6,928.72	2.65	6,897.25	31.47	ND	NA	21.53	6,907.19	NA	18 - 28
		11/04/15	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.72	6,907.00	NA	18 - 28
		02/22/16	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.34	6,907.38	NA	18 - 28
		06/08/16	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.23	6,907.49	NA	18 - 28
		09/07/16	2.00	6,926.07	6,928.72	2.65	6,897.25	31.47	ND	NA	22.69	6,906.03	NA	18 - 28
		11/04/16	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.72	6,907.00	NA	18 - 28
		03/06/17	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	20.61	6,908.11	NA	18 - 28
		06/05/17	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.07	6,907.65	NA	18 - 28
		10/03/17	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.52	6,907.20	NA	18 - 28
		11/20/17	2.00	6,926.07	6,928.72	2.65	6,897.90	30.82	ND	NA	21.53	6,907.19	NA	18 - 28
		02/06/18	2.00	6,926.07	6,928.72	2.65	6,897.89	30.83	ND	NA	21.60	6,907.12	NA	18 - 28
		04/25/18	2.00	6,926.07	6,928.72	2.65	6,897.94	30.78	ND	NA	21.76	6,906.96	NA	18 - 28
		08/15/18	2.00	6,926.07	6,928.72	2.65	6,897.87	30.85	ND	NA	22.65	6,906.07	NA	18 - 28
		11/14/18	2.00	6,926.07	6,928.72	2.65	6,897.90	30.82	ND	NA	23.30	6,905.42	NA	18 - 28
		02/25/19	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	22.43	6,906.29	NA	18 - 28
		05/06/19	2.00	6,926.07	6,928.72	2.65	6,898.25	30.47	ND	NA	21.53	6,907.19	NA	18 - 28
		08/23/19	2.00	6,926.07	6,928.72	2.65	6,897.87	30.85	ND	NA	22.05	6,906.67	NA	18 - 28
		10/22/19	2.00	6,926.07	6,928.72	2.65	6,897.90	30.82	ND	NA	23.21	6,905.51	NA	18 - 28



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/30/13	MKTF-25	03/11/15	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	10.85	6,905.34	NA	6 - 16
		06/10/15	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	11.04	6,905.15	NA	6 - 16
		08/21/15	2.00	6,913.35	6,916.19	2.84	6,895.76	20.43	ND	NA	10.60	6,905.59	NA	6 - 16
		11/05/15	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	11.20	6,904.99	NA	6 - 16
		02/23/16	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	10.83	6,905.36	NA	6 - 16
		06/09/16	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	11.22	6,904.97	NA	6 - 16
		09/08/16	2.00	6,913.35	6,916.19	2.84	6,895.76	20.43	ND	NA	12.17	6,904.02	NA	6 - 16
		11/05/16	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	11.20	6,904.99	NA	6 - 16
		03/06/17	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	9.52	6,906.67	NA	6 - 16
		06/05/17	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	10.23	6,905.96	NA	6 - 16
		09/25/17	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	11.04	6,905.15	NA	6 - 16
		11/21/17	2.00	6,913.35	6,916.19	2.84	6,896.39	19.80	ND	NA	11.11	6,905.08	NA	6 - 16
		02/05/18	2.00	6,913.35	6,916.19	2.84	6,896.64	19.55	ND	NA	11.20	6,904.99	NA	6 - 16
		04/25/18	2.00	6,913.35	6,916.19	2.84	6,896.69	19.50	ND	NA	11.18	6,905.01	NA	6 - 16
		08/15/18	2.00	6,913.35	6,916.19	2.84	6,896.41	19.78	ND	NA	12.36	6,903.83	NA	6 - 16
		11/14/18	2.00	6,913.35	6,916.19	2.84	6,896.39	19.80	ND	NA	13.35	6,902.84	NA	6 - 16
		02/14/19	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	13.13	6,903.06	NA	6 - 16
		05/06/19	2.00	6,913.35	6,916.19	2.84	6,896.76	19.43	ND	NA	12.00	6,904.19	NA	6 - 16
		08/23/19	2.00	6,913.35	6,916.19	2.84	6,896.41	19.78	ND	NA	13.12	6,903.07	NA	6 - 16
		08/27/19	2.00	6,913.35	6,916.19	2.84	6,895.41	20.78	ND	NA	13.23	6,902.96	NA	7 - 16
		10/22/19	2.00	6,913.35	6,916.19	2.84	6,896.39	19.80	ND	NA	13.72	6,902.47	NA	6 - 16



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/30/13	MKTF-26	03/11/15	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	8.00	6,907.31	NA	4 - 14
		06/10/15	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	8.57	6,906.74	NA	4 - 14
		08/20/15	2.00	6,912.55	6,915.31	2.76	6,897.16	18.15	ND	NA	8.54	6,906.77	NA	4 - 14
		11/04/15	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	8.40	6,906.91	NA	4 - 14
		02/22/16	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	8.17	6,907.14	NA	4 - 14
		06/09/16	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	9.60	6,905.71	NA	4 - 14
		09/07/16	2.00	6,912.55	6,915.31	2.76	6,897.16	18.15	9.44	1.37	10.81	6,904.50	6,905.60	4 - 14
		11/04/16	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	ND	NA	8.40	6,906.91	NA	4 - 14
		03/06/17	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	7.44	0.75	8.19	6,907.12	6,907.72	4 - 14
		06/05/17	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.03	0.96	8.99	6,906.32	6,907.09	4 - 14
		10/03/17	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	7.77	0.83	8.60	6,906.71	6,907.37	4 - 14
		11/20/17	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.09	0.84	8.93	6,906.38	6,907.05	4 - 14
		02/07/18	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.53	0.83	9.36	6,905.95	6,906.61	4 - 14
		04/25/18	2.00	6,912.55	6,915.31	2.76	6,898.26	17.05	8.56	0.81	9.37	6,905.94	6,906.59	4 - 14
		08/15/18	2.00	6,912.55	6,915.31	2.76	6,898.14	17.17	8.73	0.84	9.57	6,905.74	6,906.41	4 - 14
		11/14/18	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.45	1.45	9.90	6,905.41	6,906.57	4 - 14
		02/14/19	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.38	0.77	9.15	6,906.16	6,906.78	4 - 14
		05/06/19	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	7.80	0.85	8.65	6,906.66	6,907.34	4 - 14
		08/23/19	2.00	6,912.55	6,915.31	2.76	6,898.14	17.17	8.22	0.83	9.05	6,906.26	6,906.92	4 - 14
		10/22/19	2.00	6,912.55	6,915.31	2.76	6,898.16	17.15	8.63	0.73	9.36	6,905.95	6,906.53	4 - 14



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/30/13	MKTF-27	03/11/15	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.10	6,910.80	NA	1 - 12
		06/09/15	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.44	6,910.46	NA	1 - 12
		08/20/15	2.00	6,915.36	6,917.90	2.54	6,902.18	15.72	ND	NA	7.85	6,910.05	NA	1 - 12
		11/04/15	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.53	6,910.37	NA	1 - 12
		02/22/16	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.20	6,910.70	NA	1 - 12
		06/08/16	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.51	6,910.39	NA	1 - 12
		09/07/16	2.00	6,915.36	6,917.90	2.54	6,902.18	15.72	ND	NA	8.06	6,909.84	NA	1 - 12
		11/04/16	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	7.53	6,910.37	NA	1 - 12
		03/06/17	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.02	6,911.88	NA	1 - 12
		06/05/17	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.32	6,911.58	NA	1 - 12
		10/03/17	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	5.90	6,912.00	NA	1 - 12
		11/20/17	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	5.98	6,911.92	NA	1 - 12
		02/06/18	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.25	6,911.65	NA	1 - 12
		04/25/18	2.00	6,915.36	6,917.90	2.54	6,903.28	14.62	ND	NA	6.34	6,911.56	NA	1 - 12
		08/15/18	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.15	6,911.75	NA	1 - 12
		11/14/18	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.31	6,911.59	NA	1 - 12
		02/25/19	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	3.75	6,914.15	NA	1 - 12
		05/06/19	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	5.73	6,912.17	NA	1 - 12
		08/21/19	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	5.66	6,912.24	NA	1 - 12
		10/30/19	2.00	6,915.36	6,917.90	2.54	6,903.18	14.72	ND	NA	6.14	6,911.76	NA	1 - 12



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
04/02/14	MKTF-28	03/11/15	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	6.64	6,914.88	NA	3 - 13
		06/09/15	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	5.40	6,916.12	NA	3 - 13
		08/20/15	2.00	6,918.67	6,921.52	2.85	6,904.36	17.16	ND	NA	6.42	6,915.10	NA	3 - 13
		11/04/15	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	5.74	6,915.78	NA	3 - 13
		02/23/16	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	5.32	6,916.20	NA	3 - 13
		06/08/16	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	5.28	6,916.24	NA	3 - 13
		09/08/16	2.00	6,918.67	6,921.52	2.85	6,904.36	17.16	ND	NA	6.40	6,915.12	NA	3 - 13
		11/04/16	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	5.74	6,915.78	NA	3 - 13
		03/06/17	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	4.68	6,916.84	NA	3 - 13
		06/05/17	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	7.90	6,913.62	NA	3 - 13
		10/03/17	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	4.28	6,917.24	NA	3 - 13
		11/20/17	2.00	6,918.67	6,921.52	2.85	6,905.39	16.13	ND	NA	7.90	6,913.62	NA	3 - 13
		02/06/18	2.00	6,918.67	6,921.52	2.85	6,905.39	16.13	ND	NA	6.73	6,914.79	NA	3 - 13
		04/25/18	2.00	6,918.67	6,921.52	2.85	6,905.48	16.04	ND	NA	6.98	6,914.54	NA	3 - 13
		08/15/18	2.00	6,918.67	6,921.52	2.85	6,905.37	16.15	ND	NA	4.45	6,917.07	NA	3 - 13
		11/14/18	2.00	6,918.67	6,921.52	2.85	6,905.39	16.13	ND	NA	6.12	6,915.40	NA	3 - 13
		02/25/19	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	4.91	6,916.61	NA	3 - 13
		05/06/19	2.00	6,918.67	6,921.52	2.85	6,905.36	16.16	ND	NA	9.27	6,912.25	NA	3 - 13
		08/21/19	2.00	6,918.67	6,921.52	2.85	6,905.37	16.15	ND	NA	3.82	6,917.70	NA	3 - 13
		10/22/19	2.00	6,918.67	6,921.52	2.85	6,905.39	16.13	ND	NA	6.38	6,915.14	NA	3 - 13



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
04/02/14	MKTF-29	03/11/15	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	2.04	6,899.58	NA	10 - 20
		06/10/15	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	2.69	6,898.93	NA	10 - 20
		08/20/15	2.00	6,898.83	6,901.62	2.79	6,877.78	23.84	ND	NA	2.30	6,899.32	NA	10 - 20
		11/04/15	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	2.40	6,899.22	NA	10 - 20
		02/23/16	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	1.92	6,899.70	NA	10 - 20
		06/09/16	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	2.69	6,898.93	NA	10 - 20
		09/07/16	2.00	6,898.83	6,901.62	2.79	6,877.78	23.84	ND	NA	4.52	6,897.10	NA	10 - 20
		11/04/16	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	2.40	6,899.22	NA	10 - 20
		03/06/17	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	0.99	6,900.63	NA	10 - 20
		06/05/17	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	0.95	6,900.67	NA	10 - 20
		10/03/17	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	1.59	6,900.03	NA	10 - 20
		11/20/17	2.00	6,898.83	6,901.62	2.79	6,878.82	22.80	ND	NA	1.91	6,899.71	NA	10 - 20
		02/06/18	2.00	6,898.83	6,901.62	2.79	6,878.81	22.81	ND	NA	1.93	6,899.69	NA	10 - 20
		04/25/18	2.00	6,898.83	6,901.62	2.79	6,878.85	22.77	ND	NA	2.12	6,899.50	NA	10 - 20
		08/15/18	2.00	6,898.83	6,901.62	2.79	6,878.80	22.82	ND	NA	3.92	6,897.70	NA	10 - 20
		11/14/18	2.00	6,898.83	6,901.62	2.79	6,878.82	22.80	ND	NA	4.09	6,897.53	NA	10 - 20
		02/25/19	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	3.73	6,897.89	NA	10 - 20
		05/06/19	2.00	6,898.83	6,901.62	2.79	6,878.78	22.84	ND	NA	3.72	6,897.90	NA	10 - 20
		08/23/19	2.00	6,898.83	6,901.62	2.79	6,878.80	22.82	ND	NA	5.83	6,895.79	NA	10 - 20
		10/22/19	2.00	6,898.83	6,901.62	2.79	6,878.82	22.80	ND	NA	6.32	6,895.30	NA	10 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
04/01/14	MKTF-30	03/11/15	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.74	6,886.06	NA	10 - 20
		06/10/15	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.57	6,886.23	NA	10 - 20
		08/20/15	2.00	6,898.10	6,900.80	2.70	6,876.60	24.20	ND	NA	15.29	6,885.51	NA	10 - 20
		11/04/15	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.74	6,886.06	NA	10 - 20
		02/23/16	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.40	6,886.40	NA	10 - 20
		06/09/16	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.01	6,886.79	NA	10 - 20
		09/07/16	2.00	6,898.10	6,900.80	2.70	6,876.60	24.20	ND	NA	15.48	6,885.32	NA	10 - 20
		11/04/16	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.74	6,886.06	NA	10 - 20
		03/06/17	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.13	6,886.67	NA	10 - 20
		06/05/17	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	13.87	6,886.93	NA	10 - 20
		10/03/17	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	15.03	6,885.77	NA	10 - 20
		11/20/17	2.00	6,898.10	6,900.80	2.70	6,877.61	23.19	ND	NA	14.91	6,885.89	NA	10 - 20
		02/06/18	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.20	6,886.60	NA	10 - 20
		04/25/18	2.00	6,898.10	6,900.80	2.70	6,877.70	23.10	ND	NA	13.79	6,887.01	NA	10 - 20
		08/15/18	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.65	6,886.15	NA	10 - 20
		11/14/18	2.00	6,898.10	6,900.80	2.70	6,877.61	23.19	ND	NA	15.15	6,885.65	NA	10 - 20
		03/28/19	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	13.68	6,887.12	NA	10 - 20
		05/06/19	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	13.81	6,886.99	NA	10 - 20
		08/23/19	2.00	6,898.10	6,900.80	2.70	6,877.60	23.20	ND	NA	14.88	6,885.92	NA	10 - 20
		10/22/19	2.00	6,898.10	6,900.80	2.70	6,877.61	23.19	ND	NA	15.82	6,884.98	NA	10 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
04/01/14	MKTF-31	03/11/15	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.98	6,898.89	NA	6 - 21
		06/10/15	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.75	6,899.12	NA	6 - 21
		08/21/15	2.00	6,904.26	6,906.87	2.61	6,883.06	23.81	ND	NA	8.09	6,898.78	NA	6 - 21
		11/04/15	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	8.14	6,898.73	NA	6 - 21
		02/23/16	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.95	6,898.92	NA	6 - 21
		06/09/16	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.75	6,899.12	NA	6 - 21
		09/08/16	2.00	6,904.26	6,906.87	2.61	6,883.06	23.81	ND	NA	8.48	6,898.39	NA	6 - 21
		11/04/16	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	8.14	6,898.73	NA	6 - 21
		03/07/17	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.84	6,899.03	NA	6 - 21
		06/05/17	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.58	6,899.29	NA	6 - 21
		09/25/17	2.00	6,904.26	6,906.87	2.61	6,883.06	23.81	ND	NA	8.29	6,898.58	NA	6 - 21
		11/21/17	2.00	6,904.26	6,906.87	2.61	6,887.57	19.30	ND	NA	8.15	6,898.72	NA	6 - 21
		02/05/18	2.00	6,904.26	6,906.87	2.61	6,887.56	19.31	ND	NA	7.90	6,898.97	NA	6 - 21
		04/25/18	2.00	6,904.26	6,906.87	2.61	6,887.61	19.26	ND	NA	7.73	6,899.14	NA	6 - 21
		08/15/18	2.00	6,904.26	6,906.87	2.61	6,887.52	19.35	ND	NA	8.25	6,898.62	NA	6 - 21
		11/14/18	2.00	6,904.26	6,906.87	2.61	6,887.57	19.30	ND	NA	8.44	6,898.43	NA	6 - 21
		02/14/19	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	8.25	6,898.62	NA	6 - 21
		05/06/19	2.00	6,904.26	6,906.87	2.61	6,884.06	22.81	ND	NA	7.72	6,899.15	NA	6 - 21
		08/23/19	2.00	6,904.26	6,906.87	2.61	6,887.52	19.35	ND	NA	8.30	6,898.57	NA	6 - 21
		10/22/19	2.00	6,904.26	6,906.87	2.61	6,887.57	19.30	ND	NA	8.64	6,898.23	NA	6 - 21



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
03/31/14	MKTF-32	03/12/15	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	15.49	6,895.62	NA	9 - 24
		06/09/15	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	15.49	6,895.62	NA	9 - 24
		08/21/15	2.00	6,908.44	6,911.11	2.67	6,882.36	28.75	ND	NA	15.15	6,895.96	NA	9 - 24
		11/05/15	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.84	6,896.27	NA	9 - 24
		02/24/16	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.53	6,896.58	NA	9 - 24
		06/09/16	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.31	6,896.80	NA	9 - 24
		09/09/16	2.00	6,908.44	6,911.11	2.67	6,882.36	28.75	ND	NA	14.40	6,896.71	NA	9 - 24
		11/05/16	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.84	6,896.27	NA	9 - 24
		03/07/17	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.70	6,897.41	NA	9 - 24
		06/06/17	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.79	6,897.32	NA	9 - 24
		09/25/17	2.00	6,908.44	6,911.11	2.67	6,882.36	28.75	ND	NA	14.11	6,897.00	NA	9 - 24
		11/27/17	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.57	6,897.54	NA	9 - 24
		02/07/18	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.70	6,897.41	NA	9 - 24
		04/25/18	2.00	6,908.44	6,911.11	2.67	6,883.45	27.66	ND	NA	13.48	6,897.63	NA	9 - 24
		08/15/18	2.00	6,908.44	6,911.11	2.67	6,883.34	27.77	ND	NA	14.00	6,897.11	NA	9 - 24
		11/14/18	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.10	6,897.01	NA	9 - 24
		02/13/19	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.49	6,897.62	NA	9 - 24
		05/07/19	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	13.25	6,897.86	NA	9 - 24
		08/20/19	2.00	6,908.44	6,911.11	2.67	6,883.34	27.77	ND	NA	14.03	6,897.08	NA	9 - 24
		10/23/19	2.00	6,908.44	6,911.11	2.67	6,883.36	27.75	ND	NA	14.01	6,897.10	NA	9 - 24



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
04/03/14	MKTF-33	03/12/15	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.32	6,916.43	NA	20 - 30
		06/09/15	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.30	6,916.45	NA	20 - 30
		08/21/15	2.00	6,936.59	6,939.75	3.16	6,905.55	34.20	ND	NA	23.32	6,916.43	NA	20 - 30
		11/09/15	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.19	6,916.56	NA	20 - 30
		02/25/16	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.20	6,916.55	NA	20 - 30
		06/10/16	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.29	6,916.46	NA	20 - 30
		09/10/16	2.00	6,936.59	6,939.75	3.16	6,905.55	34.20	ND	NA	23.20	6,916.55	NA	20 - 30
		11/09/16	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	23.19	6,916.56	NA	20 - 30
		03/08/17	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.16	6,917.59	NA	20 - 30
		06/07/17	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.07	6,917.68	NA	20 - 30
		09/25/17	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.50	6,917.25	NA	20 - 30
		11/27/17	2.00	6,936.59	6,939.75	3.16	6,906.53	33.22	ND	NA	22.27	6,917.48	NA	20 - 30
		02/07/18	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.65	6,917.10	NA	20 - 30
		04/26/18	2.00	6,936.59	6,939.75	3.16	6,906.64	33.11	ND	NA	22.55	6,917.20	NA	20 - 30
		08/15/18	2.00	6,936.59	6,939.75	3.16	6,906.52	33.23	ND	NA	22.85	6,916.90	NA	20 - 30
		11/27/18	2.00	6,936.59	6,939.75	3.16	6,906.53	33.22	ND	NA	22.72	6,917.03	NA	20 - 30
		03/25/19	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.00	6,917.75	NA	20 - 30
		05/09/19	2.00	6,936.59	6,939.75	3.16	6,906.55	33.20	ND	NA	22.04	6,917.71	NA	20 - 30
		08/20/19	2.00	6,936.59	6,939.75	3.16	6,906.52	33.23	ND	NA	22.35	6,917.40	NA	20 - 30
		10/24/19	2.00	6,936.59	6,939.75	3.16	6,906.53	33.22	ND	NA	22.50	6,917.25	NA	20 - 30



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
03/31/14	MKTF-34	03/12/15	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	18.77	6,926.58	NA	9 - 24
		06/08/15	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	18.90	6,926.45	NA	9 - 24
		08/18/15	2.00	6,942.42	6,945.35	2.93	6,916.67	28.68	ND	NA	18.74	6,926.61	NA	9 - 24
		11/03/15	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	19.00	6,926.35	NA	9 - 24
		02/25/16	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	19.20	6,926.15	NA	9 - 24
		06/10/16	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	18.60	6,926.75	NA	9 - 24
		09/12/16	2.00	6,942.42	6,945.35	2.93	6,916.67	28.68	ND	NA	18.03	6,927.32	NA	9 - 24
		11/03/16	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	19.00	6,926.35	NA	9 - 24
		03/01/17	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	16.50	6,928.85	NA	9 - 24
		06/14/17	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	17.63	6,927.72	NA	9 - 24
		09/26/17	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	17.62	6,927.73	NA	9 - 24
		11/30/17	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.03	6,927.32	NA	9 - 24
		02/15/18	2.00	6,942.42	6,945.35	2.93	6,917.64	27.71	ND	NA	18.80	6,926.55	NA	9 - 24
		04/26/18	2.00	6,942.42	6,945.35	2.93	6,917.75	27.60	ND	NA	18.63	6,926.72	NA	9 - 24
		08/15/18	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.58	6,926.77	NA	9 - 24
		11/27/18	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.95	6,926.40	NA	9 - 24
		03/25/19	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	16.95	6,928.40	NA	9 - 24
		05/09/19	2.00	6,942.42	6,945.35	2.93	6,917.67	27.68	ND	NA	18.09	6,927.26	NA	9 - 24
		08/19/19	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	17.70	6,927.65	NA	9 - 24
		10/29/19	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.03	6,927.32	NA	9 - 24
		11/12/19	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.06	6,927.29	NA	9 - 24



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/19/14	MKTF-35	03/17/15	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.93	6,942.72	NA	6 - 16
		06/04/15	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.93	6,942.72	NA	6 - 16
		08/18/15	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.91	6,942.74	NA	6 - 16
		11/03/15	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	9.02	6,942.63	NA	6 - 16
		02/26/16	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.40	6,943.25	NA	6 - 16
		06/10/16	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	7.37	6,944.28	NA	6 - 16
		09/12/16	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	6.65	6,945.00	NA	6 - 16
		11/03/16	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	9.02	6,942.63	NA	6 - 16
		03/01/17	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	6.18	6,945.47	NA	6 - 16
		06/14/17	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	7.12	6,944.53	NA	6 - 16
		09/27/17	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	7.70	6,943.95	NA	6 - 16
		11/30/17	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.15	6,943.50	NA	6 - 16
		02/15/18	2.00	6,951.90	6,951.65	-0.25	6,935.18	16.47	ND	NA	8.70	6,942.95	NA	6 - 16
		04/26/18	2.00	6,951.90	6,951.65	-0.25	6,935.25	16.40	ND	NA	8.53	6,943.12	NA	6 - 16
		08/16/18	2.00	6,951.90	6,951.65	-0.25	6,935.17	16.48	ND	NA	8.70	6,942.95	NA	6 - 16
		11/27/18	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	9.10	6,942.55	NA	6 - 16
		03/25/19	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.54	6,943.11	NA	6 - 16
		05/16/19	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.49	6,943.16	NA	6 - 16
		08/19/19	2.00	6,951.90	6,951.65	-0.25	6,935.17	16.48	ND	NA	8.09	6,943.56	NA	6 - 16
		10/28/19	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.42	6,943.23	NA	6 - 16
		10/29/19	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.40	6,943.25	NA	6 - 16
		11/12/19	2.00	6,951.90	6,951.65	-0.25	6,935.20	16.45	ND	NA	8.60	6,943.05	NA	6 - 16



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/19/14	MKTF-36	03/17/15	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	7.71	6,942.41	NA	5 - 15
		06/04/15	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	7.53	6,942.59	NA	5 - 15
		08/18/15	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	7.50	6,942.62	NA	5 - 15
		11/03/15	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	7.00	0.66	7.66	6,942.46	6,942.99	5 - 15
		03/17/16	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	7.71	6,942.41	NA	5 - 15
		06/10/16	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	6.78	0.02	6.80	6,943.32	6,943.34	5 - 15
		09/13/16	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	6.54	0.01	6.55	6,943.57	6,943.58	5 - 15
		11/03/16	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	7.00	0.66	7.66	6,942.46	6,942.99	5 - 15
		03/01/17	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	5.56	6,944.56	NA	5 - 15
		06/14/17	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	5.40	6,944.72	NA	5 - 15
		09/27/17	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	5.80	6,944.32	NA	5 - 15
		11/30/17	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	6.45	6,943.67	NA	5 - 15
		02/15/18	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	ND	NA	6.86	6,943.26	NA	5 - 15
		04/26/18	2.00	6,950.67	6,950.12	-0.55	6,934.72	15.40	ND	NA	6.56	6,943.56	NA	5 - 15
		09/05/18	2.00	6,950.67	6,950.12	-0.55	6,934.69	15.43	ND	NA	6.52	6,943.60	NA	5 - 15
		11/29/18	2.00	6,950.67	6,950.12	-0.55	6,934.67	NM	NM	NA	NM	NA	NA	5 - 15
		03/25/19	2.00	6,950.67	6,950.12	-0.55	6,934.67	NM	NM	NA	NM	NA	NA	5 - 15
		05/14/19	2.00	6,950.67	6,950.12	-0.55	6,934.67	NM	NM	NA	NM	NA	NA	5 - 15
		08/19/19	2.00	6,950.67	6,950.12	-0.55	6,934.67	NM	NM	NA	NM	NA	NA	5 - 15
		11/06/19	2.00	6,950.67	6,950.12	-0.55	6,934.72	15.40	5.08	5.25	10.33	6,939.79	6,943.99	5 - 15
		11/07/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	4.30	5.91	10.21	6,943.30	6,948.03	5 - 15
		11/12/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	6.80	2.85	9.65	6,943.86	6,946.14	5 - 15
		11/13/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	6.95	2.45	9.40	6,944.11	6,946.07	5 - 15
		11/14/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	7.14	2.47	9.61	6,943.90	6,945.88	5 - 15
		11/15/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	7.31	2.15	9.46	6,944.05	6,945.77	5 - 15
		11/19/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	7.80	1.18	8.98	6,944.53	6,945.47	5 - 15
		11/21/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	8.00	0.78	8.78	6,944.73	6,945.35	5 - 15
		12/02/19	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	8.25	0.70	8.95	6,944.56	6,945.12	5 - 15



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/18/14	MKTF-37	03/17/15	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	9.21	6,949.66	NA	4 - 24
		06/04/15	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	9.48	6,949.39	NA	4 - 24
		08/18/15	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	9.45	6,949.42	NA	4 - 24
		11/03/15	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.54	0.03	9.57	6,949.30	6,949.32	4 - 24
		03/17/16	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	9.21	6,949.66	NA	4 - 24
		06/10/16	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	8.21	0.02	8.23	6,950.64	6,950.66	4 - 24
		09/12/16	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	7.65	6,951.22	NA	4 - 24
		11/03/16	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.54	0.03	9.57	6,949.30	6,949.32	4 - 24
		03/01/17	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	6.90	6,951.97	NA	4 - 24
		06/14/17	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	7.20	0.04	7.24	6,951.63	6,951.66	4 - 24
		09/27/17	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	7.83	0.06	7.89	6,950.98	6,951.03	4 - 24
		11/30/17	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	8.39	0.02	8.41	6,950.46	6,950.48	4 - 24
		02/15/18	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	8.96	0.04	9.00	6,949.87	6,949.90	4 - 24
		04/26/18	2.00	6,959.07	6,958.87	-0.20	6,934.33	24.54	ND	NA	8.52	6,950.35	NA	4 - 24
		08/16/18	2.00	6,959.07	6,958.87	-0.20	6,934.28	24.59	ND	NA	8.70	6,950.17	NA	4 - 24
		11/27/18	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.40	0.12	9.52	6,949.35	6,949.45	4 - 24
		03/25/19	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	ND	NA	8.39	6,950.48	NA	4 - 24
		05/16/19	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.10	0.08	9.18	6,949.69	6,949.75	4 - 24
		08/23/19	2.00	6,959.07	6,958.87	-0.20	6,934.28	24.59	8.85	0.02	8.87	6,950.00	6,950.02	4 - 24
		10/28/19	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.30	0.03	9.33	6,949.54	6,949.56	4 - 24
		10/29/19	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.17	0.03	9.20	6,949.67	6,949.69	4 - 24
		11/12/19	2.00	6,959.07	6,958.87	-0.20	6,934.27	24.60	9.52	0.04	9.56	6,949.31	6,949.34	4 - 24



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/20/14	MKTF-38	03/16/15	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.00	6,945.89	NA	5 - 20
		06/10/15	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.34	6,945.55	NA	5 - 20
		08/24/15	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.25	6,945.64	NA	5 - 20
		11/09/15	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.45	6,945.44	NA	5 - 20
		02/29/16	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.63	6,946.26	NA	5 - 20
		06/08/16	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.43	6,946.46	NA	5 - 20
		09/13/16	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.00	6,946.89	NA	5 - 20
		11/09/16	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.45	6,945.44	NA	5 - 20
		03/14/17	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	6.41	6,948.48	NA	5 - 20
		06/21/17	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	6.40	6,948.49	NA	5 - 20
		09/28/17	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	6.32	6,948.57	NA	5 - 20
		11/30/17	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	7.83	6,947.06	NA	5 - 20
		02/12/18	2.00	6,955.17	6,954.89	-0.28	6,934.59	20.30	ND	NA	8.40	6,946.49	NA	5 - 20
		04/25/18	2.00	6,955.17	6,954.89	-0.28	6,934.61	20.28	ND	NA	7.79	6,947.10	NA	5 - 20
		08/16/18	2.00	6,955.17	6,954.89	-0.28	6,934.62	20.27	ND	NA	8.05	6,946.84	NA	5 - 20
		11/19/18	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.99	6,945.90	NA	5 - 20
		03/26/19	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	11.30	6,943.59	NA	5 - 20
		05/14/19	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.66	6,946.23	NA	5 - 20
		06/27/19	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	8.75	6,946.14	NA	5 - 20
		08/20/19	2.00	6,955.17	6,954.89	-0.28	6,934.62	20.27	ND	NA	8.77	6,946.12	NA	5 - 20
		12/03/19	2.00	6,955.17	6,954.89	-0.28	6,934.60	20.29	ND	NA	9.50	6,945.39	NA	5 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/14/14	MKTF-39	03/16/15	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.88	6,944.87	NA	5 - 15
		06/10/15	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	9.31	6,944.44	NA	5 - 15
		08/23/15	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	9.24	6,944.51	NA	5 - 15
		11/09/15	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	9.39	6,944.36	NA	5 - 15
		03/03/16	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.50	6,945.25	NA	5 - 15
		06/08/16	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.33	6,945.42	NA	5 - 15
		09/13/16	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.40	6,945.35	NA	5 - 15
		11/09/16	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	9.39	6,944.36	NA	5 - 15
		03/14/17	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	6.44	6,947.31	NA	5 - 15
		06/08/17	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	6.25	6,947.50	NA	5 - 15
		09/28/17	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	7.32	6,946.43	NA	5 - 15
		11/28/17	2.00	6,953.97	6,953.75	-0.22	6,938.57	15.18	ND	NA	7.55	6,946.20	NA	5 - 15
		02/08/18	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.18	6,945.57	NA	5 - 15
		04/25/18	2.00	6,953.97	6,953.75	-0.22	6,938.62	15.13	ND	NA	7.82	6,945.93	NA	5 - 15
		08/16/18	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.30	6,945.45	NA	5 - 15
		11/19/18	2.00	6,953.97	6,953.75	-0.22	6,938.57	15.18	ND	NA	9.00	6,944.75	NA	5 - 15
		03/28/19	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	NM	NA	NM	NA	NA	5 - 15
		06/05/19	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	8.69	6,945.06	NA	5 - 15
		08/20/19	2.00	6,953.97	6,953.75	-0.22	6,938.55	15.20	ND	NA	9.04	6,944.71	NA	5 - 15
		11/04/19	2.00	6,953.97	6,953.75	-0.22	6,938.57	15.18	ND	NA	9.59	6,944.16	NA	5 - 15



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/13/14	MKTF-40	03/11/15	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	14.60	6,879.73	NA	5 - 20
		06/10/15	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	14.20	6,880.13	NA	5 - 20
		08/21/15	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.83	6,880.50	NA	5 - 20
		11/04/15	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.91	6,880.42	NA	5 - 20
		02/23/16	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.88	6,880.45	NA	5 - 20
		06/09/16	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.31	6,881.02	NA	5 - 20
		09/08/16	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.52	6,880.81	NA	5 - 20
		11/04/16	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.91	6,880.42	NA	5 - 20
		03/07/17	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.14	6,881.19	NA	5 - 20
		06/05/17	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.29	6,881.04	NA	5 - 20
		09/25/17	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	13.28	6,881.05	NA	5 - 20
		11/21/17	2.00	6,891.35	6,894.33	2.98	6,870.71	23.62	ND	NA	13.71	6,880.62	NA	5 - 20
		02/05/18	2.00	6,891.35	6,894.33	2.98	6,870.71	23.62	ND	NA	13.18	6,881.15	NA	5 - 20
		04/25/18	2.00	6,891.35	6,894.33	2.98	6,870.80	23.53	ND	NA	12.94	6,881.39	NA	5 - 20
		08/15/18	2.00	6,891.35	6,894.33	2.98	6,870.79	23.54	ND	NA	12.74	6,881.59	NA	5 - 20
		11/14/18	2.00	6,891.35	6,894.33	2.98	6,870.71	23.62	ND	NA	13.64	6,880.69	NA	5 - 20
		02/20/19	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	12.79	6,881.54	NA	5 - 20
		05/06/19	2.00	6,891.35	6,894.33	2.98	6,870.69	23.64	ND	NA	12.36	6,881.97	NA	5 - 20
		08/22/19	2.00	6,891.35	6,894.33	2.98	6,870.79	23.54	ND	NA	12.15	6,882.18	NA	5 - 20
		10/22/19	2.00	6,891.35	6,894.33	2.98	6,870.71	23.62	ND	NA	13.04	6,881.29	NA	5 - 20



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/14/14	MKTF-41	03/12/15	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	20.07	6,873.57	NA	22 - 37
		06/09/15	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.77	6,873.87	NA	22 - 37
		08/21/15	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.90	6,873.74	NA	22 - 37
		11/05/15	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.77	6,873.87	NA	22 - 37
		02/24/16	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.90	6,873.74	NA	22 - 37
		06/09/16	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.65	6,873.99	NA	22 - 37
		09/09/16	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	20.11	6,873.53	NA	22 - 37
		11/05/16	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.77	6,873.87	NA	22 - 37
		03/07/17	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.60	6,874.04	NA	22 - 37
		06/06/17	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	18.49	6,875.15	NA	22 - 37
		09/25/17	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	20.25	6,873.39	NA	22 - 37
		11/27/17	2.00	6,891.11	6,893.64	2.53	6,853.93	39.71	ND	NA	19.81	6,873.83	NA	22 - 37
		02/07/18	2.00	6,891.11	6,893.64	2.53	6,853.92	39.72	ND	NA	20.23	6,873.41	NA	22 - 37
		04/25/18	2.00	6,891.11	6,893.64	2.53	6,853.73	39.91	ND	NA	19.97	6,873.67	NA	22 - 37
		08/15/18	2.00	6,891.11	6,893.64	2.53	6,853.90	39.74	ND	NA	20.26	6,873.38	NA	22 - 37
		11/14/18	2.00	6,891.11	6,893.64	2.53	6,853.93	39.71	ND	NA	20.51	6,873.13	NA	22 - 37
		02/13/19	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	20.10	6,873.54	NA	22 - 37
		05/07/19	2.00	6,891.11	6,893.64	2.53	6,853.54	40.10	ND	NA	19.52	6,874.12	NA	22 - 37
		08/22/19	2.00	6,891.11	6,893.64	2.53	6,853.90	39.74	ND	NA	19.55	6,874.09	NA	22 - 37
		10/23/19	2.00	6,891.11	6,893.64	2.53	6,853.93	39.71	ND	NA	20.02	6,873.62	NA	22 - 37



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/14	MKTF-42	03/11/15	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.97	6,874.98	NA	10 - 30
		06/09/15	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.60	6,875.35	NA	10 - 30
		08/21/15	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.44	6,875.51	NA	10 - 30
		11/05/15	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.26	6,875.69	NA	10 - 30
		02/24/16	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.69	6,875.26	NA	10 - 30
		06/09/16	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.30	6,875.65	NA	10 - 30
		09/09/16	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.30	6,875.65	NA	10 - 30
		11/05/16	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.26	6,875.69	NA	10 - 30
		03/07/17	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	15.72	6,877.23	NA	10 - 30
		06/06/17	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.12	6,875.83	NA	10 - 30
		09/25/17	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	16.83	6,876.12	NA	10 - 30
		11/27/17	2.00	6,890.42	6,892.95	2.53	6,859.77	33.18	ND	NA	16.81	6,876.14	NA	10 - 30
		02/07/18	2.00	6,890.42	6,892.95	2.53	6,860.05	32.90	ND	NA	17.41	6,875.54	NA	10 - 30
		04/25/18	2.00	6,890.42	6,892.95	2.53	6,859.87	33.08	ND	NA	17.13	6,875.82	NA	10 - 30
		08/15/18	2.00	6,890.42	6,892.95	2.53	6,859.75	33.20	ND	NA	16.77	6,876.18	NA	10 - 30
		11/14/18	2.00	6,890.42	6,892.95	2.53	6,859.77	33.18	ND	NA	16.94	6,876.01	NA	10 - 30
		02/13/19	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	17.18	6,875.77	NA	10 - 30
		05/07/19	2.00	6,890.42	6,892.95	2.53	6,859.80	33.15	ND	NA	16.68	6,876.27	NA	10 - 30
		08/22/19	2.00	6,890.42	6,892.95	2.53	6,859.75	33.20	ND	NA	16.40	6,876.55	NA	10 - 30
		10/23/19	2.00	6,890.42	6,892.95	2.53	6,859.77	33.18	ND	NA	16.52	6,876.43	NA	10 - 30



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/14	MKTF-43	03/11/15	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.20	6,871.70	NA	2 - 12
		06/10/15	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.63	6,873.27	NA	2 - 12
		08/21/15	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.80	6,873.10	NA	2 - 12
		11/05/15	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.12	6,871.78	NA	2 - 12
		02/24/16	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.00	6,871.90	NA	2 - 12
		06/09/16	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.67	6,873.23	NA	2 - 12
		09/09/16	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.98	6,872.92	NA	2 - 12
		11/05/16	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.12	6,871.78	NA	2 - 12
		03/08/17	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.34	6,871.56	NA	2 - 12
		06/06/17	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.62	6,873.28	NA	2 - 12
		09/25/17	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	4.14	6,872.76	NA	2 - 12
		11/27/17	2.00	6,874.12	6,876.90	2.78	6,861.52	15.38	ND	NA	5.65	6,871.25	NA	2 - 12
		02/07/18	2.00	6,874.12	6,876.90	2.78	6,861.52	15.38	ND	NA	6.43	6,870.47	NA	2 - 12
		04/25/18	2.00	6,874.12	6,876.90	2.78	6,861.60	15.30	ND	NA	5.05	6,871.85	NA	2 - 12
		08/15/18	2.00	6,874.12	6,876.90	2.78	6,861.49	15.41	ND	NA	2.66	6,874.24	NA	2 - 12
		11/14/18	2.00	6,874.12	6,876.90	2.78	6,861.52	15.38	ND	NA	5.42	6,871.48	NA	2 - 12
		02/13/19	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	5.99	6,870.91	NA	2 - 12
		05/08/19	2.00	6,874.12	6,876.90	2.78	6,861.47	15.43	ND	NA	3.97	6,872.93	NA	2 - 12
		08/22/19	2.00	6,874.12	6,876.90	2.78	6,861.49	15.41	ND	NA	3.67	6,873.23	NA	2 - 12
		10/24/19	2.00	6,874.12	6,876.90	2.78	6,861.52	15.38	ND	NA	4.34	6,872.56	NA	2 - 12



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/14	MKTF-44	03/12/15	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	38.44	6,831.51	NA	38 - 48
		06/10/15	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	29.55	6,840.40	NA	38 - 48
		08/17/15	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	31.23	6,838.72	NA	38 - 48
		11/09/15	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	33.32	6,836.63	NA	38 - 48
		02/24/16	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	28.74	6,841.21	NA	38 - 48
		06/09/16	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	27.83	6,842.12	NA	38 - 48
		09/08/16	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	31.34	6,838.61	NA	38 - 48
		11/09/16	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	33.32	6,836.63	NA	38 - 48
		03/08/17	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	25.39	6,844.56	NA	38 - 48
		06/05/17	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	32.90	6,837.05	NA	38 - 48
		09/25/17	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	30.18	6,839.77	NA	38 - 48
		11/27/17	2.00	6,867.41	6,869.95	2.54	6,818.79	51.16	ND	NA	33.70	6,836.25	NA	38 - 48
		02/07/18	2.00	6,867.41	6,869.95	2.54	6,818.79	51.16	ND	NA	37.56	6,832.39	NA	38 - 48
		04/25/18	2.00	6,867.41	6,869.95	2.54	6,818.87	51.08	ND	NA	36.72	6,833.23	NA	38 - 48
		08/15/18	2.00	6,867.41	6,869.95	2.54	6,818.75	51.20	ND	NA	35.70	6,834.25	NA	38 - 48
		11/14/18	2.00	6,867.41	6,869.95	2.54	6,818.79	51.16	ND	NA	26.42	6,843.53	NA	38 - 48
		02/13/19	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	33.39	6,836.56	NA	38 - 48
		05/08/19	2.00	6,867.41	6,869.95	2.54	6,818.80	51.15	ND	NA	34.20	6,835.75	NA	38 - 48
		08/22/19	2.00	6,867.41	6,869.95	2.54	6,818.75	51.20	ND	NA	30.96	6,838.99	NA	38 - 48
		10/24/19	2.00	6,867.41	6,869.95	2.54	6,818.79	51.16	ND	NA	38.54	6,831.41	NA	38 - 48



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
Pre-existing	MKTF-45	02/10/15	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.58	2.94	16.52	6,933.07	6,935.42	Unknown
		03/17/15	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.14	1.80	14.94	6,934.65	6,936.09	Unknown
		06/08/15	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.20	3.55	16.75	6,932.84	6,935.68	Unknown
		08/18/15	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.50	0.11	13.61	6,935.98	6,936.07	Unknown
		11/03/15	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.70	0.32	14.02	6,935.57	6,935.83	Unknown
		03/17/16	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.14	1.80	14.94	6,934.65	6,936.09	Unknown
		06/10/16	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	12.48	0.32	12.80	6,936.79	6,937.05	Unknown
		09/13/16	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.95	0.45	12.40	6,937.19	6,937.55	Unknown
		11/03/16	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.70	0.32	14.02	6,935.57	6,935.83	Unknown
		03/01/17	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.32	0.31	10.63	6,938.96	6,939.21	Unknown
		06/14/17	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.50	0.50	12.00	6,937.59	6,937.99	Unknown
		10/03/17	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.48	0.53	12.01	6,937.58	6,938.00	Unknown
		11/30/17	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	12.76	0.47	13.23	6,936.36	6,936.74	Unknown
		02/15/18	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.09	0.15	13.24	6,936.35	6,936.47	Unknown
		04/26/18	4.00	6,948.63	6,949.59	0.96	6,919.31	30.28	12.87	0.43	13.30	6,936.29	6,936.63	Unknown
		08/16/18	4.00	6,948.63	6,949.59	0.96	6,919.26	30.33	13.15	0.43	13.58	6,936.01	6,936.35	Unknown
		11/27/18	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	13.60	0.55	14.15	6,935.44	6,935.88	Unknown
		03/26/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	12.00	0.50	12.50	6,937.09	6,937.49	Unknown
		05/14/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	12.43	0.59	13.02	6,936.57	6,937.04	Unknown
		08/19/19	4.00	6,948.63	6,949.59	0.96	6,919.26	30.33	14.02	0.46	14.48	6,935.11	6,935.48	Unknown
		10/28/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.97	1.03	13.00	6,936.59	6,937.41	Unknown
		10/29/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.38	2.37	13.75	6,935.84	6,937.74	Unknown
		10/31/18	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.66	6.24	16.90	6,932.69	6,937.68	Unknown
		11/06/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	9.57	12.95	22.52	6,927.07	6,937.43	Unknown
		11/07/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	9.00	13.25	22.25	6,927.34	6,937.94	Unknown
		11/11/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	8.75	14.85	23.60	6,925.99	6,937.87	Unknown
		11/12/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	9.62	14.30	23.92	6,925.67	6,937.11	Unknown
		11/13/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	9.70	16.23	25.93	6,923.66	6,936.64	Unknown
		11/14/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.06	15.23	25.29	6,924.30	6,936.48	Unknown
		11/15/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.28	14.29	24.57	6,925.02	6,936.45	Unknown
		11/19/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.84	11.91	22.75	6,926.84	6,936.37	Unknown
		11/21/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	11.00	10.90	21.90	6,927.69	6,936.41	Unknown
		12/02/19	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	12.38	6.57	18.95	6,930.64	6,935.90	Unknown



**TABLE 9.2**  
**5-YEAR HISTORICAL DTB/DTW MEASUREMENTS FOR WELLS MKTF-01 THRU MKTF-50**

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevation (ft)	Well Casing Rim Elevation (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH Column Thickness (ft)	Depth to Water (ft)	Ground-water Elevation (ft)	Corrected Water Table <sup>1</sup> Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
10/12/19	MKTF-46	10/29/19	2.00	6,954.73	6,957.60	2.87	6,936.31	21.29	ND	NA	10.28	6,947.32	NA	3 - 18
		11/12/19	2.00	6,954.73	6,957.60	2.87	6,936.31	21.29	ND	NA	10.46	6,947.14	NA	3 - 18
		12/02/19	2.00	6,954.73	6,957.60	2.87	6,936.31	21.29	ND	NA	10.70	6,946.90	NA	3 - 18
10/14/19	MKTF-47	12/02/19	2.00	6,959.51	6,959.09	-0.42	6,944.79	14.30	ND	NA	9.78	6,949.31	NA	4 - 14
10/14/19	MKTF-48	12/02/19	2.00	6,959.24	6,961.73	2.49	6,940.81	20.92	ND	NA	11.85	6,949.88	NA	2 - 17
10/15/19	MKTF-49	12/03/19	2.00	6,944.00	6,946.76	2.76	6,921.86	24.90	ND	NA	19.90	6,926.86	NA	5 - 25
10/16/19	MKTF-50	12/03/19	2.00	6,939.68	6,942.82	3.14	6,921.17	21.65	ND	NA	15.61	6,927.21	NA	3 - 18

**DEFINITIONS:**

DTB - Depth to Bottom

DTW - Depth to Water

SPH = Separate Phase Hydrocarbons

NA = Not Applicable

NM = Not Measured

Negative number in Stick up Length column indicates well is flushmount and located at or below ground level.

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

Dry indicates no water was detected.

**NOTES:**

- Corrected Water Table Elevation applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Groundwater Elevation)

11/29/18 - Not able to locate well to gauge or sample.



## **SECTION 10 2019 MONITORING SCHEDULE**

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Table 1 in Section 10 details the approved Ground Water Monitoring Schedule for all wells at Gallup Refinery and details the analytical suite required for each sample site location.



**Section 10 - Table 1**  
**Monitoring Schedule for 2019**

Sampling Location ID	Sampling Frequency	Collect GW Elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
NAPI Secondary Containment (3 units)	Q	NA	NA	BTEX+MTBE, GRO/DRO extended, WQCC Metals or check for fluids
NAPI Inlet	Q	NA	NA	BTEX+MTBE, GRO/DRO extended, WQCC Metals
RW-1	Q	X	NA	Measure DTW, DTP (Hydrocarbon recovery). Sample for BTEX, MTBE, GRO/DRO extended if no SPH is detected, nitrite, nitrate
RW-2	Q	X	NA	Same as RW-1 with 1,4-dioxane by 8270/8270 SIMS for two consecutive events
RW-5	Q	X	NA	Same as RW-1
RW-6	Q	X	NA	Same as RW-1
OW-1	Q	X	pH, EC, DO, ORP, Temp, TDS	Visual check for artesian flow conditions: Sample for Major Cations/Anions, WQCC Metals, VOCS (Methods 8260 & 8011 for 1,2-dibromomethane), GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events
OW-10	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-1
OW-13	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-14	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), WQCC Metals, GRO/DRO extended, 1,4-dioxane by 8270/8270 SIMS for two consecutive events, nitrite, nitrate
OW-29	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-14
OW-30	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-14
OW-53	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-54	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-14
OW-55	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-14
OW-56	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-14
OW-57	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-53
OW-58	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-53
OW-58A	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-53
OW-59	Q	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, SVOCS, GRO/DRO extended, WQCC Metals
OW-60	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as OW-59
OW-61	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-62	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-63	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-64	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions
OW-65	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions
GWM-1	Q	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), GRO/DRO extended, WQCC Metals, 1,4-dioxane by 8270/8270 SIMS for two consecutive events
GWM-2	Q	X	NA	Check for Water - if water is detected report to OCD & NMED within 24 hours. Sample for GRO/DRO extended, Major Cations/Anions, VOCS
GWM-3	Q	X	NA	Check for Water - if water is detected report to OCD & NMED within 24 hours. Sample for VOCS, GRO/DRO extended, Major Cations/Anions



**Section 10 - Table 1**  
**Monitoring Schedule for 2019**

Sampling Location ID	Sampling Frequency	Collect GW Elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
NAPIS-1 <sup>1</sup>	Q	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, BTEX+MTBE, SVOCS, GRO/DRO extended, WQCC Metals
NAPIS-2 <sup>1</sup>	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as NAPIS-1 with 1,4-dioxane by 8270/8270 SIMS for two consecutive events
NAPIS-3 <sup>1</sup>	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as NAPIS-1 with Method 8011 for 1,2-dibromoethane, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
KA- 3 <sup>1</sup>	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as NAPIS-1 with 1,4-dioxane by 8270/8270 SIMS for two consecutive events
OAPIS-1	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), SVOCS, GRO/DRO extended, WQCC Metals, Major Cations/Anions, Cyanide, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
STP1-NW	Q	X	NA	Major Cations/Anions, VOCS, SVOCS, GRO/DRO extended, WQCC Metals
STP1-SW	Q	X	NA	Major Cations/Anions, VOCS, SVOCS, GRO/DRO extended, WQCC Metals
STP-1 TO EP-2 (EP-2 Inlet)	Q	NA	NA	VOCS, GRO/DRO extended, BOD, COD, TDS, WQCC Metals, TSS
Boiler Water (Reverse Osmosis) inlet to EP-9	SA	NA	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions
Pond 1 <sup>2</sup>				NO LONGER IN SERVICE
Evaporation Pond 2 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	General Chemistry, VOCS, SVOCS, BOD, COD, E-Coli Bacteria, WQCC Metals
Evaporation Pond 3 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 4 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 5 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 6 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 7 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 8 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 9 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 11 <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 12A <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Evaporation Pond 12B <sup>2</sup>	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
Any temporary Pond containing fluid	SA		pH, EC, DO, ORP, Temp, TDS	Same as EP-2
BW-1A	Annual (A)	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, WQCC METALS, GRO/DRO extended
BW-1B	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-1C	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-2A	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-2B	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-2C	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-3A	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-3B	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-3C	A	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-4A	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A



**Section 10 - Table 1**  
**Monitoring Schedule for 2019**

Sampling Location ID	Sampling Frequency	Collect GW Elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
BW-4B	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-5A	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-1A
BW-5B	Q	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), WQCC METALS, GRO/DRO extended, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
BW-5C	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as BW-5B
MW-1	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, GRO/DRO extended, WQCC Metals, Cyanide, SVOCS, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
MW-2	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Same as MW-1, excluding 1,4-dioxane
MW-4	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Same as MW-2
MW-5	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Same as MW-2
OW-11	A	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, WQCC Metals, GRO/DRO extended
OW-12	A	X	pH, EC, DO, ORP, Temp, TDS	VOCS, WQCC Metals, GRO/DRO extended, nitrite, nitrate
OW-50	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), GRO/DRO extended, WQCC Metals, General Chemistry, nitrite, nitrate
OW-52	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (methods 8260 & 8011 for 1,2-dibromoethane) , GRO/DRO extended, WQCC Metals, General Chemistry, nitrite, nitrate
SMW-2	A	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, GRO/DRO extended, WQCC Metals, Cyanide, SVOCS
SMW-4	Annual and every 10 years beginning in 2009 per RCRA Post Closure Permit	X	pH, EC, DO, ORP, Temp, TDS	Major Cations/Anions, VOCS, SVOCS, GRO/DRO extended, WQCC Metals, Cyanide, 1,4-dioxane by 8270/8270 SIMS for two consecutive events
PW-3	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, Cyanide, Nitrate, Nitrite
PW-2	Every 3 years. Starting in 2008	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, Cyanide, Nitrate, Nitrite, 1,4-dioxane by 8270/8270 SIMS for two consecutive events
PW-4	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, Cyanide, Nitrate, Nitrite
MKTF-01	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS (Methods 8260 & 8011 for 1,2-dibromoethane), SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
MKTF-02	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-03	Q	X	pH, EC, DO, ORP, Temp, TDS	VOCS, SVOCS, WQCC Metals, GRO/DRO extended, Major Cations/Anions, and 1,4-dioxane by 8270/8270 SIMS for two consecutive events
MKTF-04	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-05	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-06	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-07	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-08	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03



**Section 10 - Table 1**  
**Monitoring Schedule for 2019**

Sampling Location ID	Sampling Frequency	Collect GW Elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
MKTF-09	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-10	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-11	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-12	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-13	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-14	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-15	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-16	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-17	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-18	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-19	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-20	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-21	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-22	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-23	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-24	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-25	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-26	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-27	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-28	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-29	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-30	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-31	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-32	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-33	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-34	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-35	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-36	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-37	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-38	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-39	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-40	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-41	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-42	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-43	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03



Section 10 - Table 1  
Monitoring Schedule for 2019

Sampling Location ID	Sampling Frequency	Collect GW Elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
MKTF-44	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-45	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-46	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-01
MKTF-47	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-48	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-49	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03
MKTF-50	Q	X	pH, EC, DO, ORP, Temp, TDS	Same as MKTF-03

DEFINITIONS:

DO- Dissolved Oxygen	DTW - Depth to Water	MW - Monitor Well	DRO - Diesel Range Organics	BTEX - Benzene, Toluene, Ethylbenzene, Xylenes, plus Methyl Tert-Butyl Ether (MTBE) - EPA Method 8021+MTBE
ORP - Oxygen Reduction Potential	DTP - Depth to Product	OW - Observation Well	MRO - Motor oil range organics	General Chemistry - pH, specific conductance, cations, Anions
Temp - Temperature	DTB - Depth to Bottom	RW - Recovery Well	GRO - Gasoline Range Organics	WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved
EC - Electrical or Specific Conductivity	EP - Evaporation Pond	NA - Not Applicable	MKTF - Marketing Tank Farm Well	VOC - Volatile Organic Compounds - EPA Method 8260, must include MTBE
TDS - Total Dissolved Solids	BW - Boundary Well		PW - Raw Water Production Well	SVOC - Semi-Volatile Organic Compounds - EPA Method 8270, must include phenol

NOTES:

- NAPIS-1, NAPIS-2, NAPIS-3, and KA-3: Detection of product during quarterly monitoring must comply with Section II.F.2 (24-hour reporting) of NMED Post-Closure Care Permit
- Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use methods 9221-E, until EPA approves 40 CFR 136 Methods (Colilert, Colilert-18, m-Colibblue24, membrane filter method)). Parameters are subject to change. Evaporation pond samples must be collected at the inlet where waste water flows into the evaporation ponds.
- Where nitrite and/or major anions are specified Hach Field Test Kit NI-12 will be used for the field analysis of nitrite in addition to laboratory analysis for nitrate + nitrite.



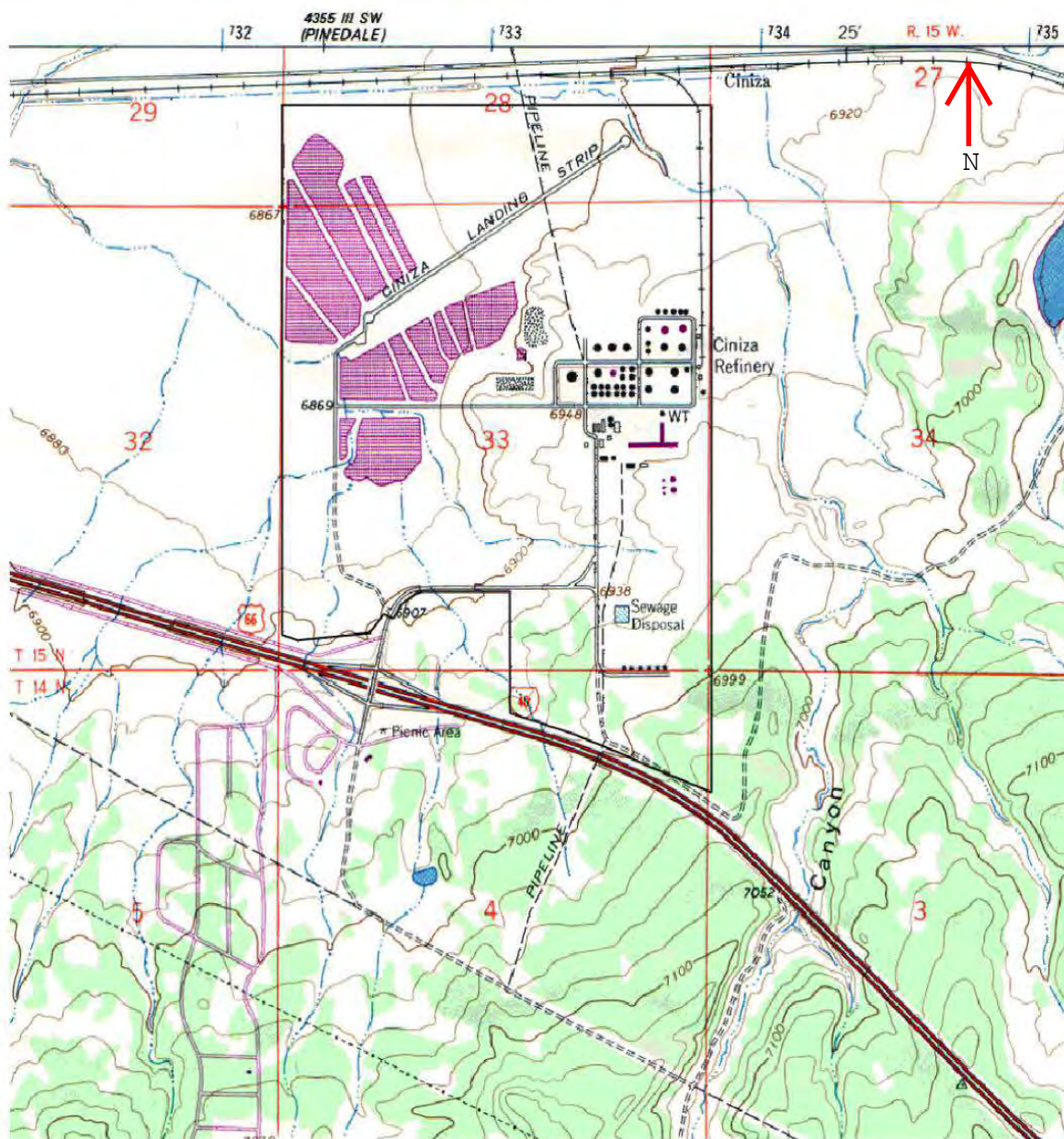
## FIGURES





**Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).**





**Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)**

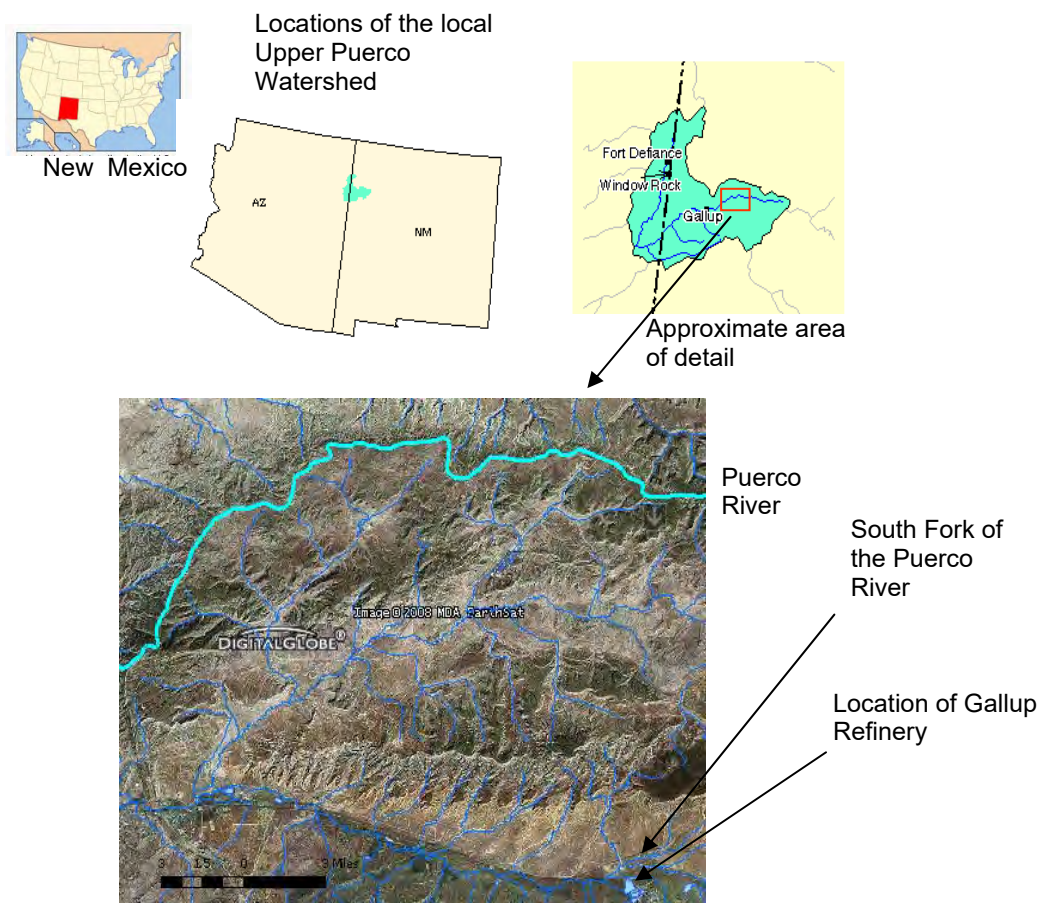




**Figure 3: Aerial photograph of the Gallup Refinery**



**Figure 4: Regional scale:** Flow lines and major surface water bodies (from: EPA Enviromapper - <http://map24.epa.gov/EMR/?ZoomToWatershed=15020006> ) North is towards the top of the page.





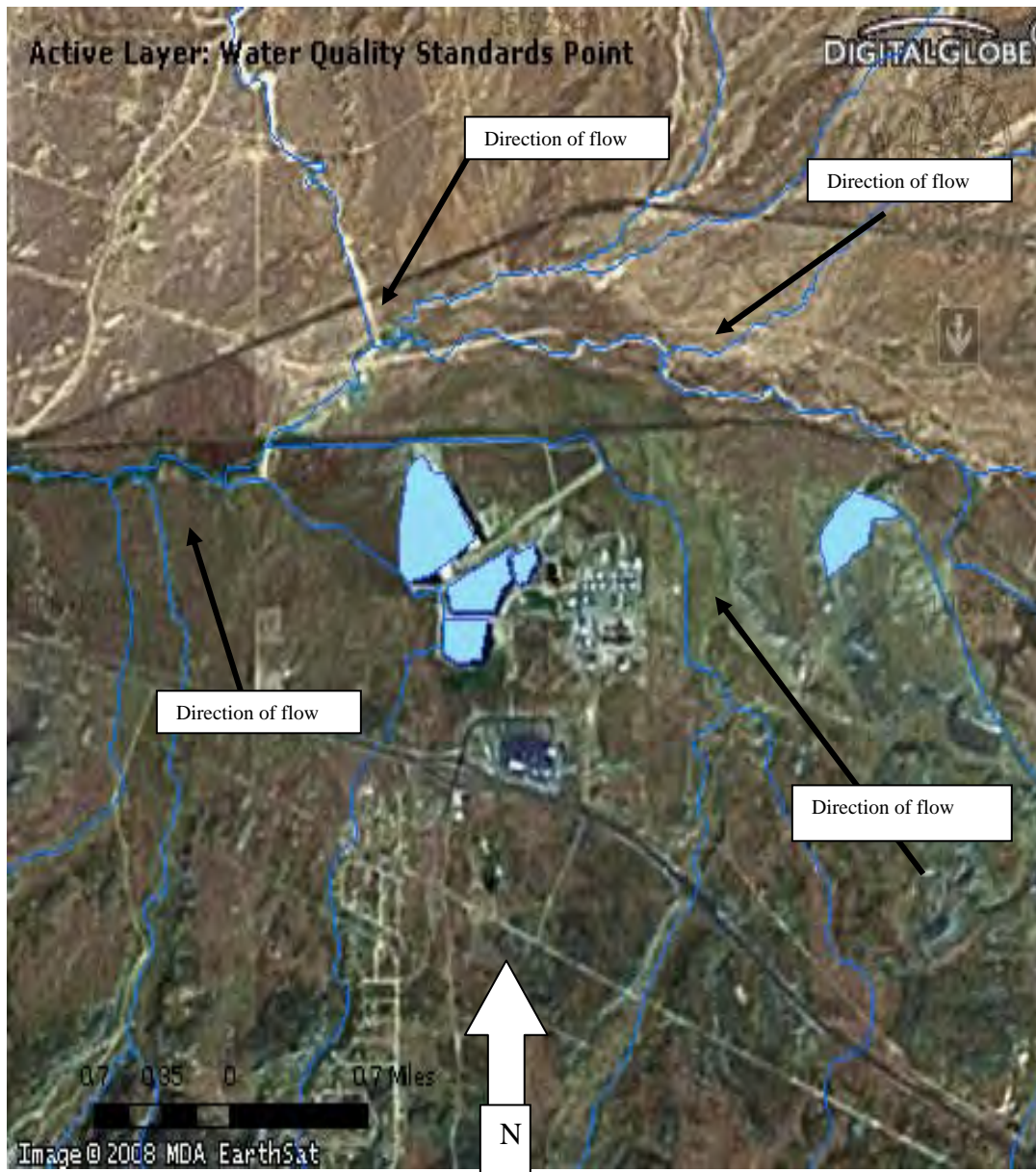
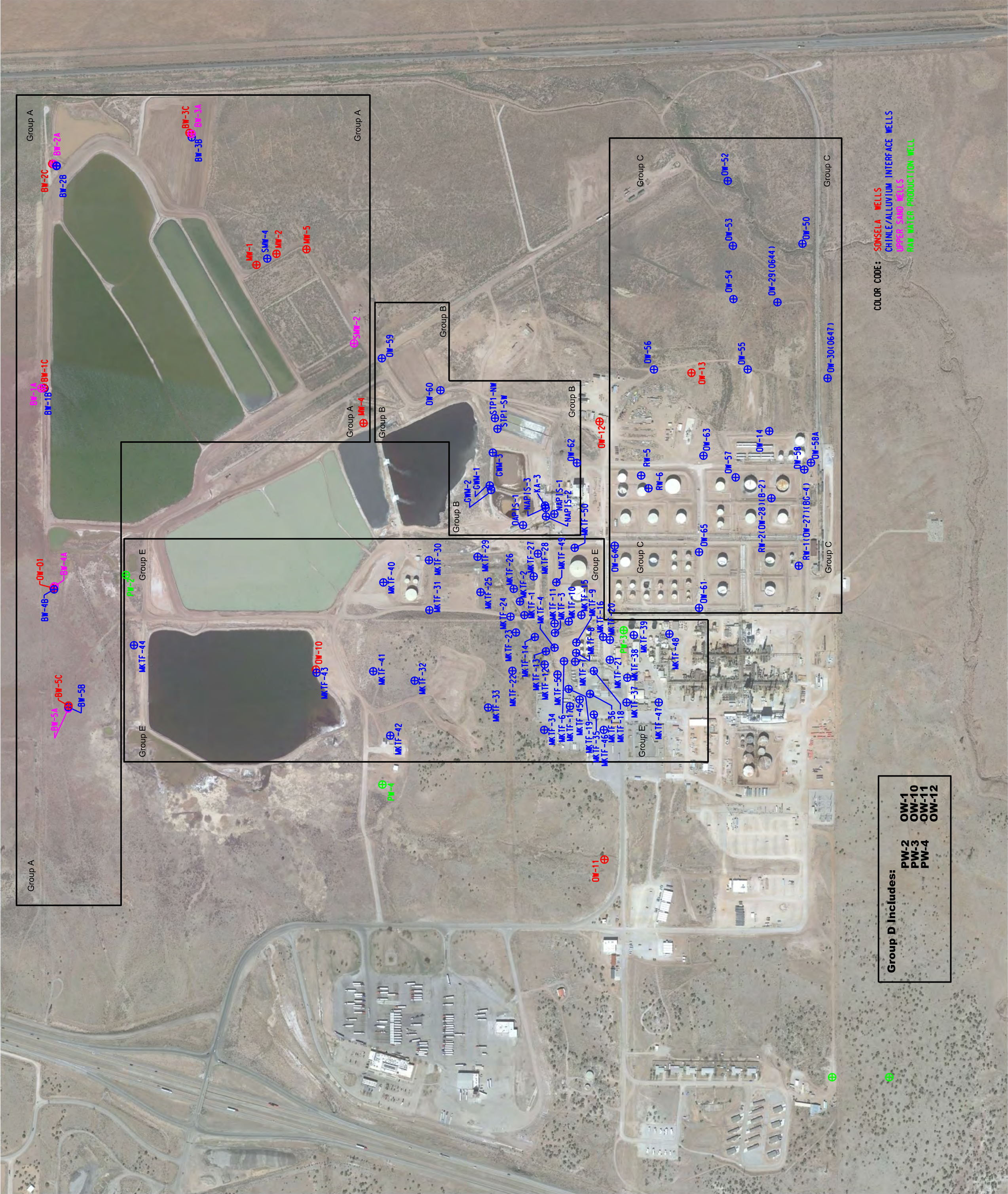


Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - <http://map24.epa.gov/EMR/?ZoomToWatershed=15020006> ) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

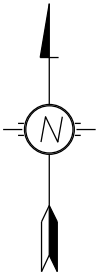




This Line is 1" on Original



4601 Ripley  
El Paso, Texas 79922  
915-884-1317



1"=500'

Project #: 06251970

**FIGURE 6**  
**FACILITIES AND WELL GROUPS - 2020**  
**MARATHON - GALLUP REFINERY**

Marathon - Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301  
April 1, 2020





Profile East 8-8'

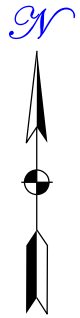
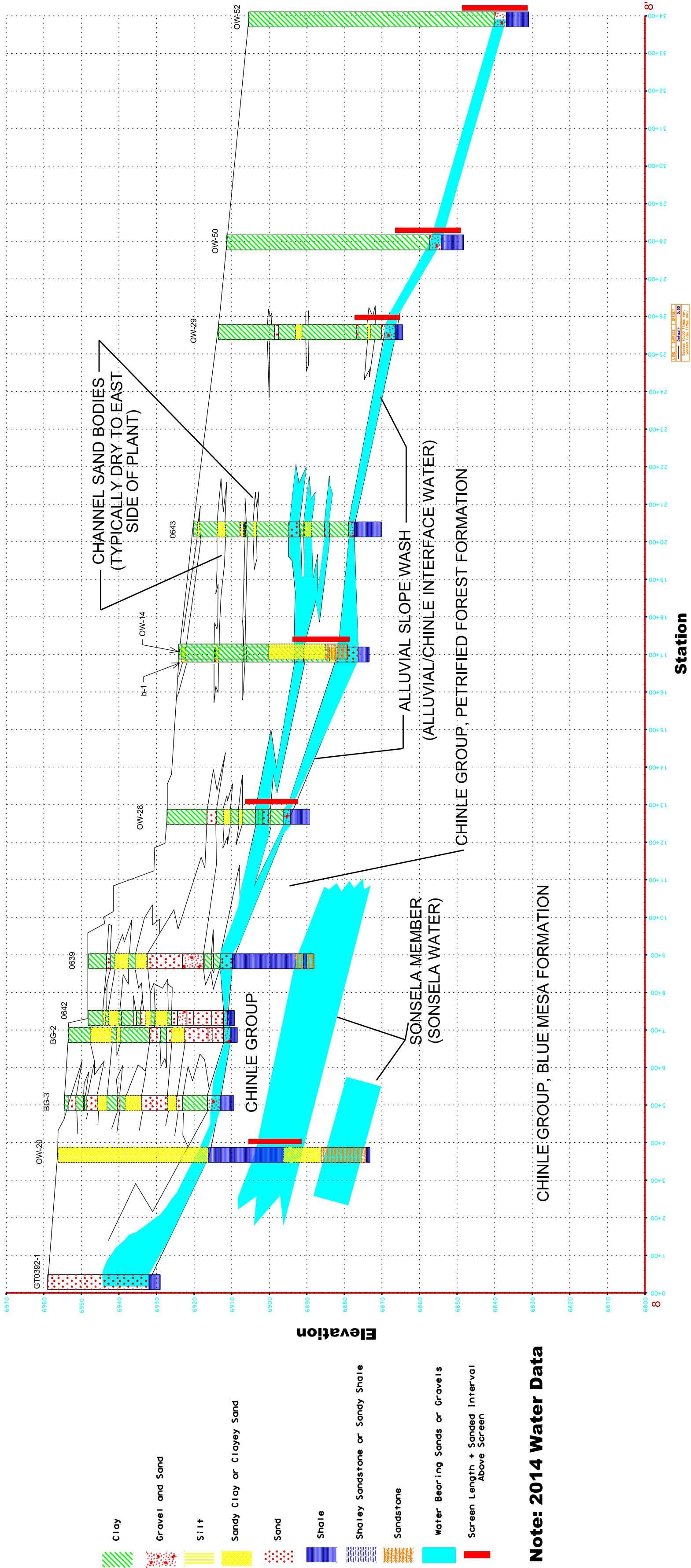
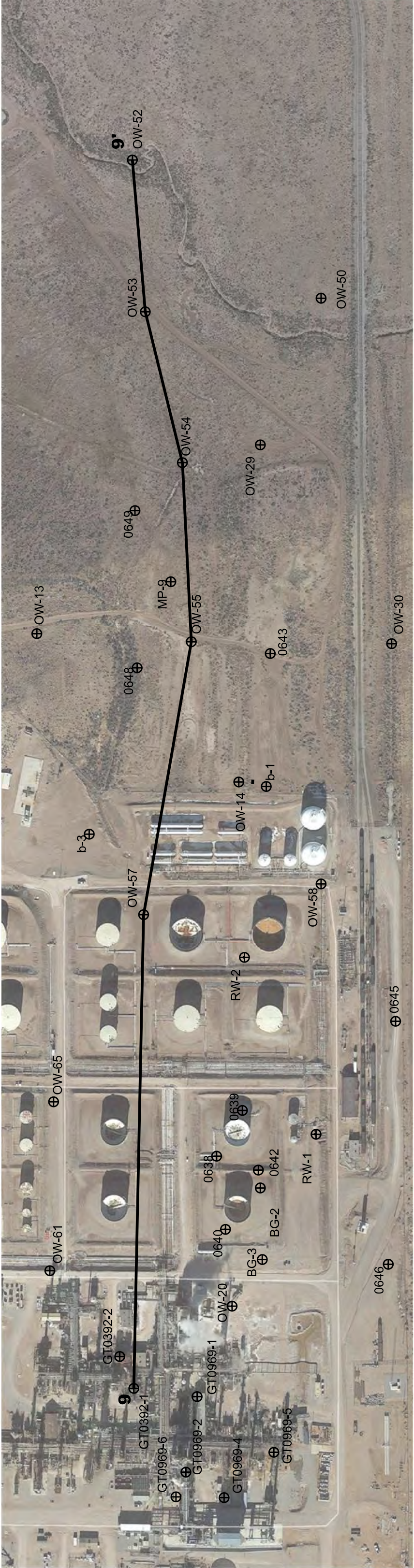
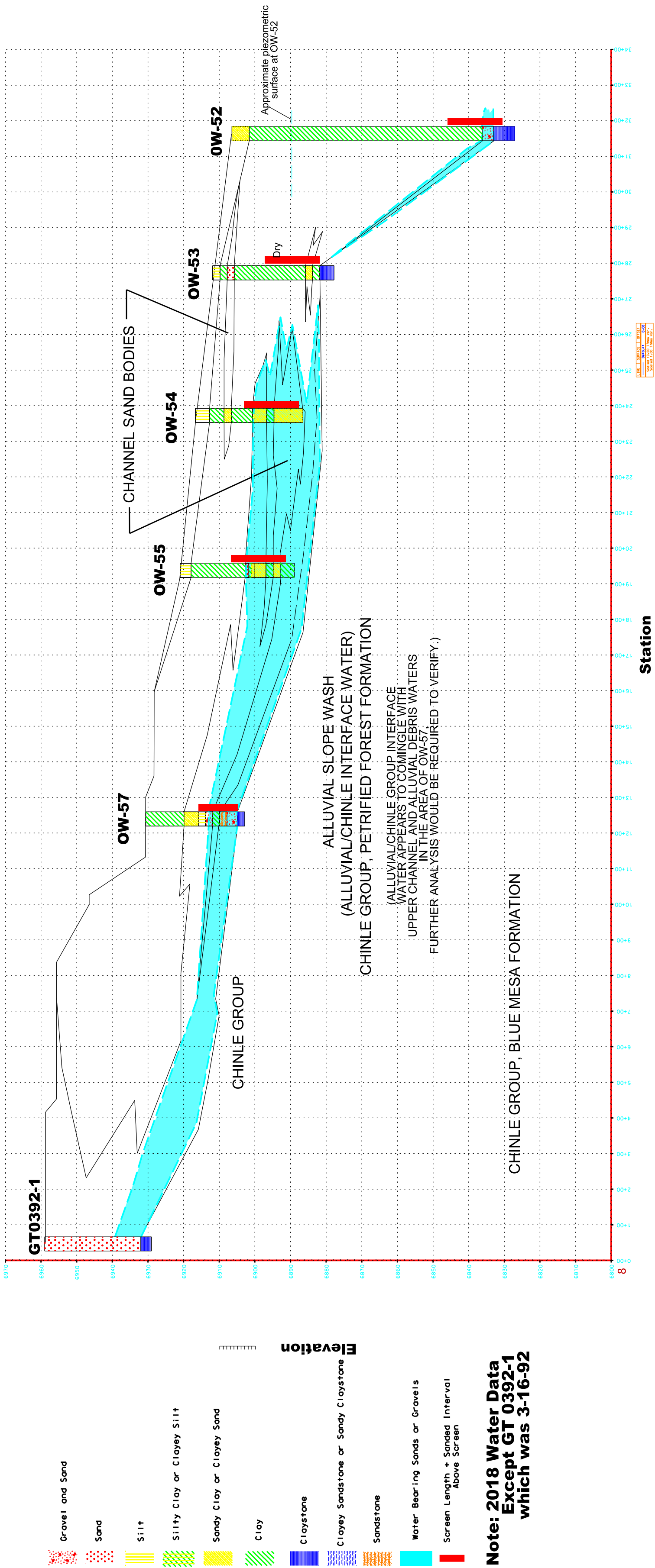


FIGURE 7  
TYPICAL S - N GEOLOGIC PROFILE (PROFILE 8 - 2019)  
MARATHON - GALLUP REFINERY





Profile East 9-9'



4601 Ripley  
El Paso, Texas 79922  
915-584-1317

Project # 06251762

Marathon - Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301  
Date: September 4, 2019

# FIGURE 7A

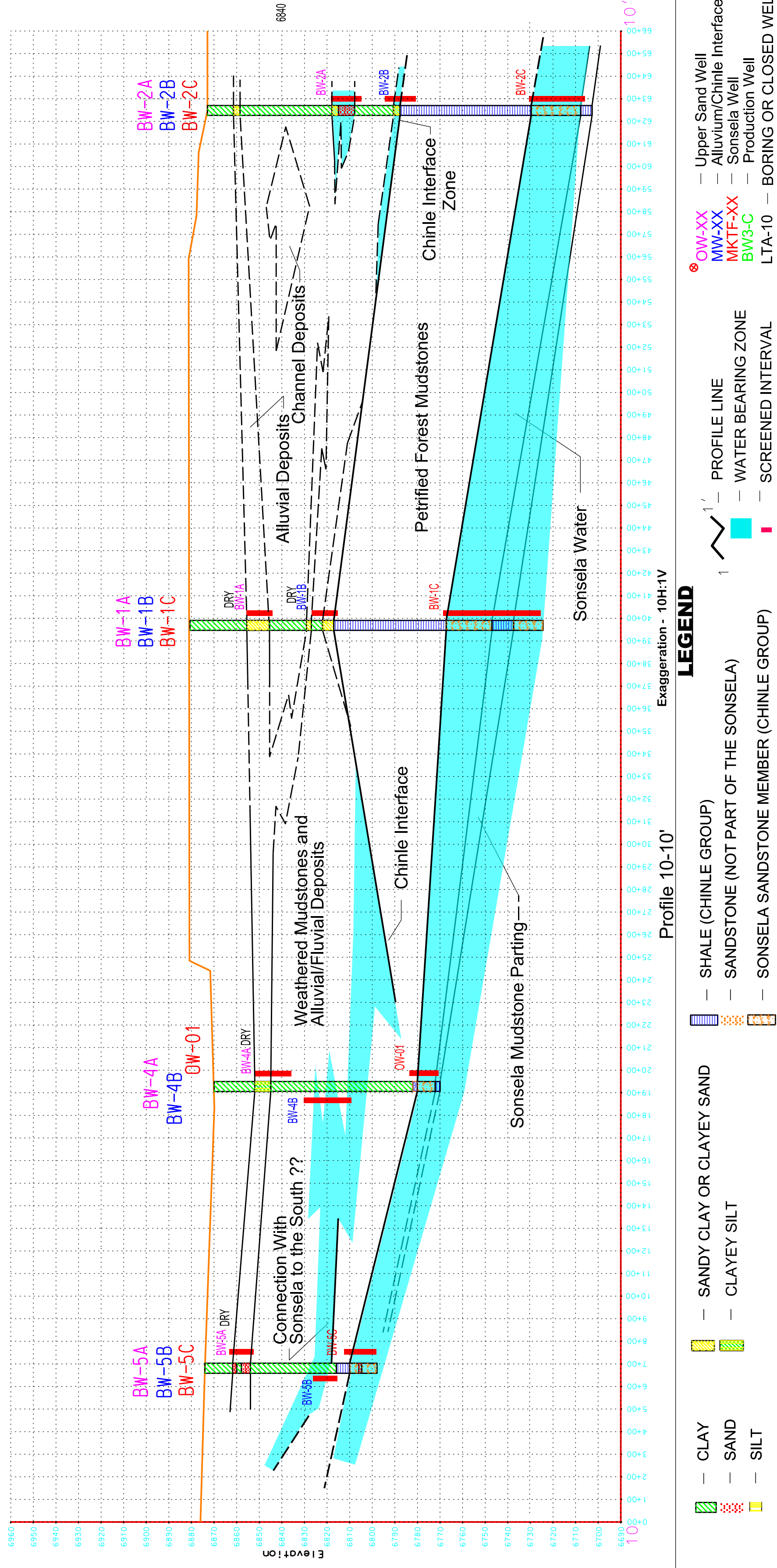
## TYPICAL S - N GEOLOGIC PROFILE (PROFILE 9 - 2019)

### MARATHON - GALLUP REFINERY









# FIGURE 8A

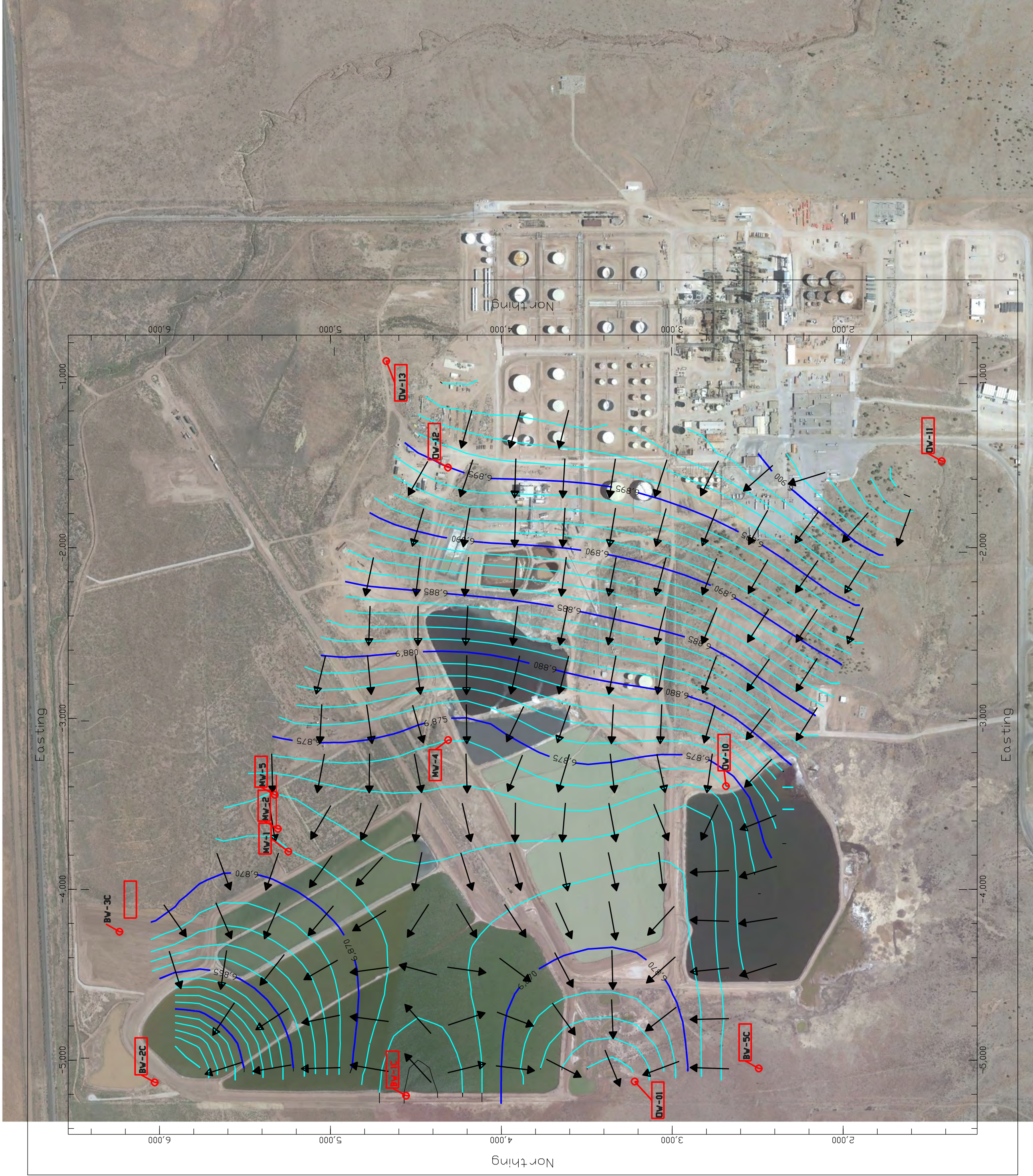
**S - N SECTION - FAR WEST PLANT AREA (PROFILE 10-2019)**

# MARATHON - GALLUP REFINERY

Marathon - Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301  
Date: September 10, 2018

Date: September 10, 2018





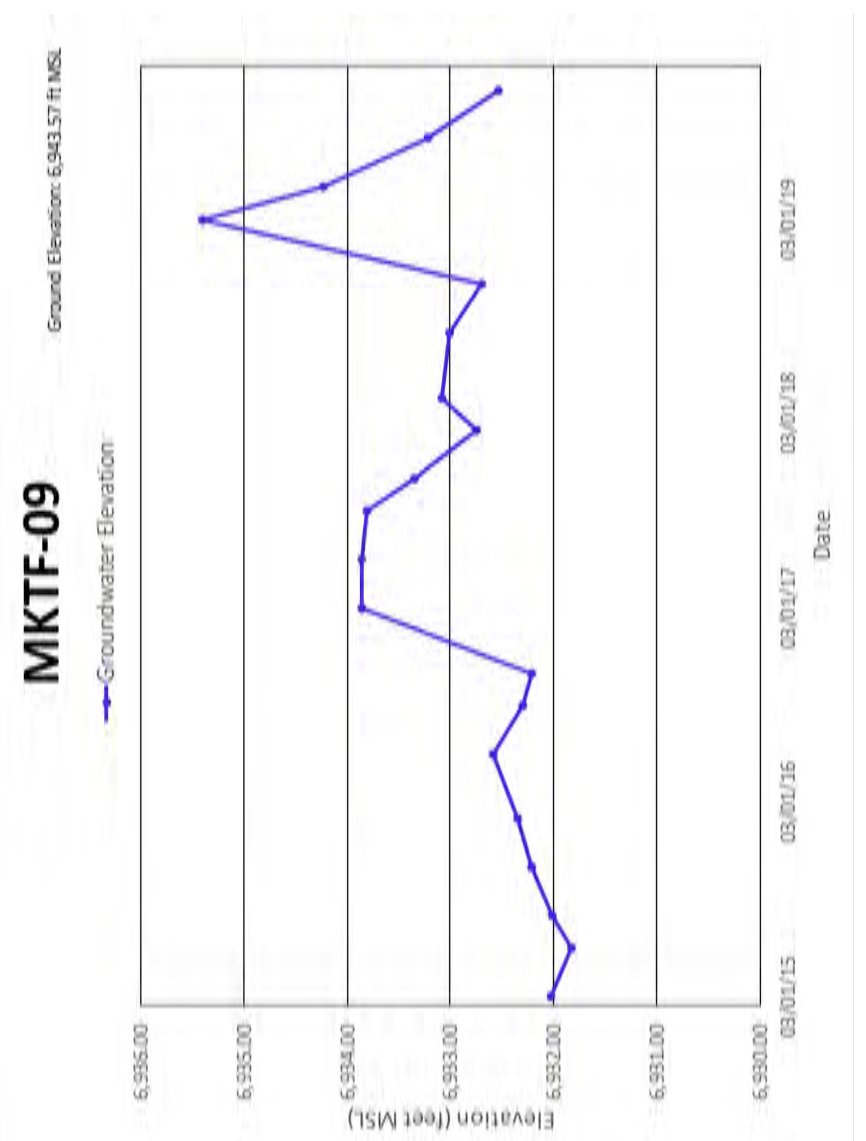
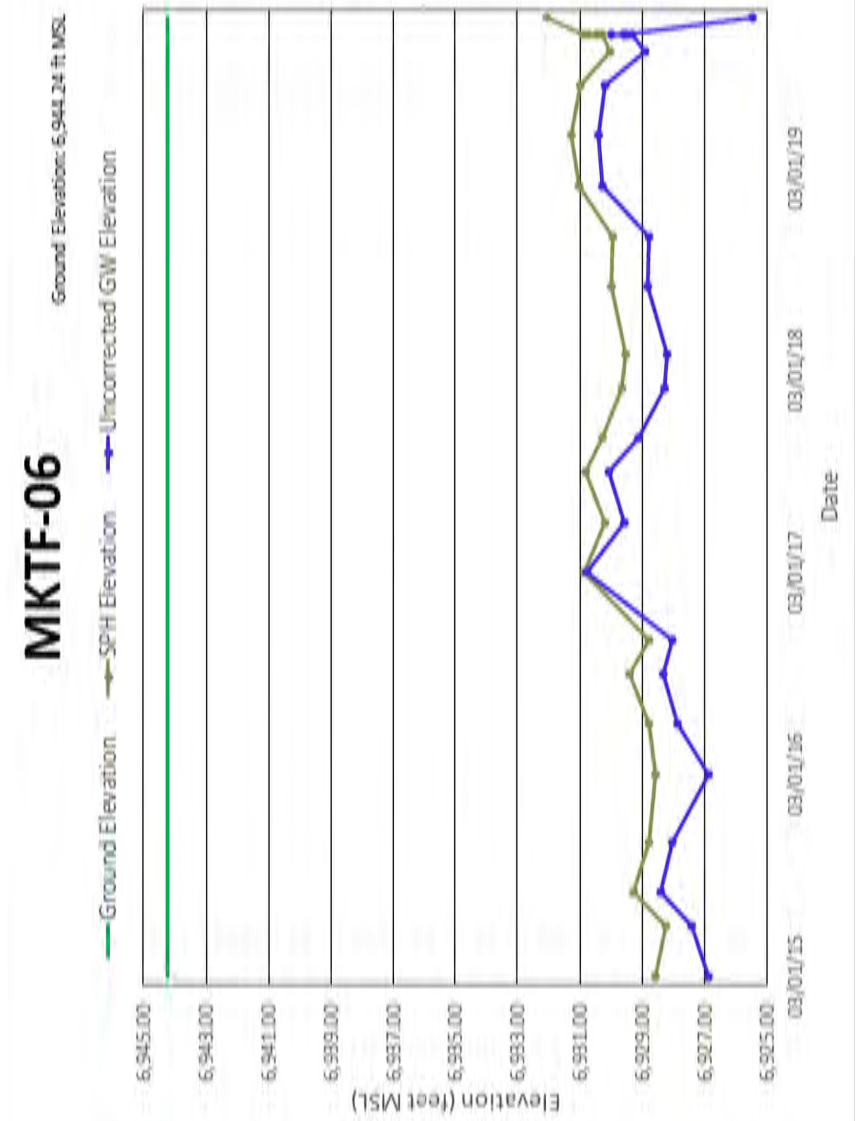
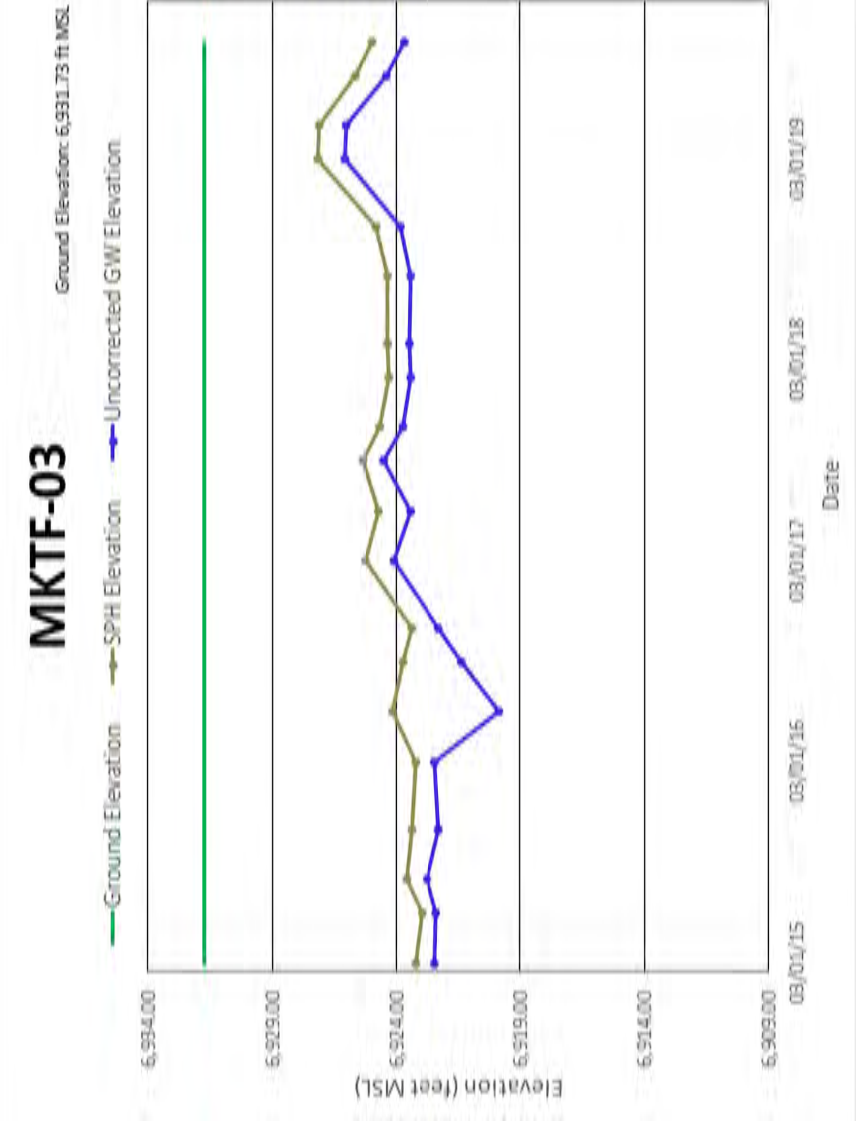
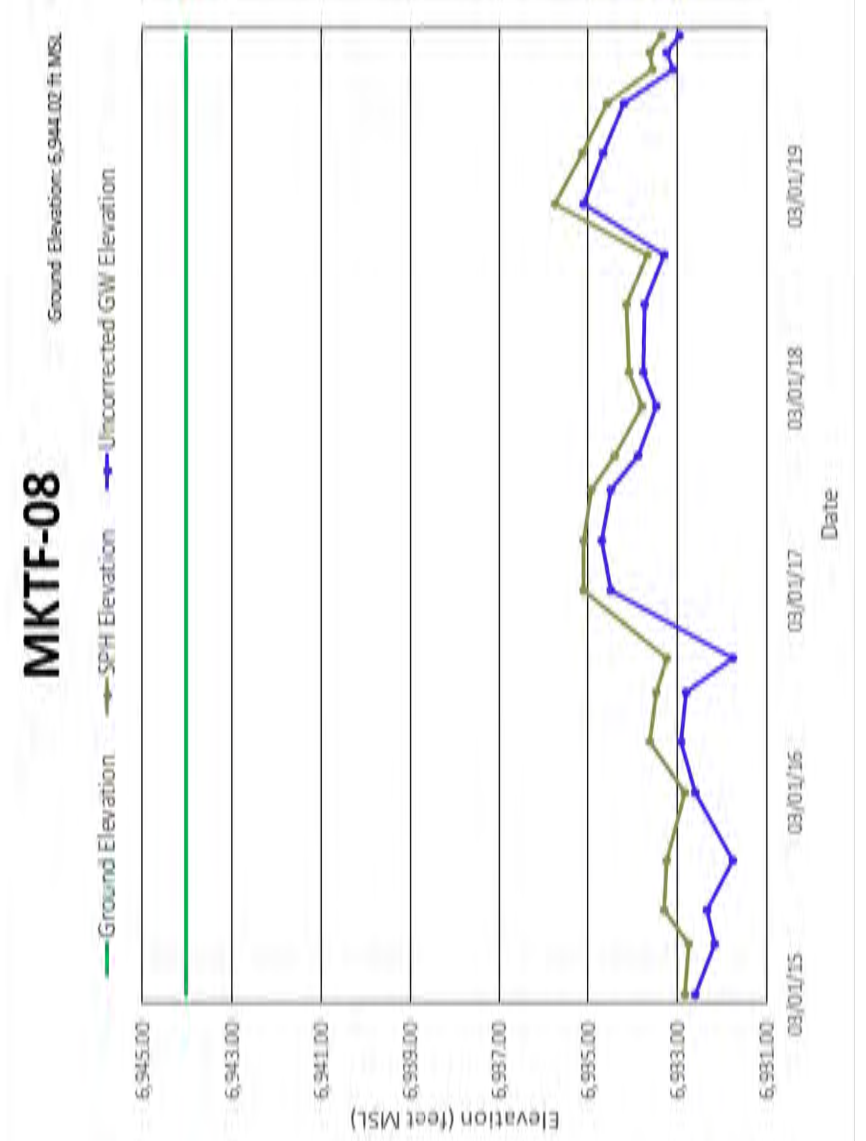
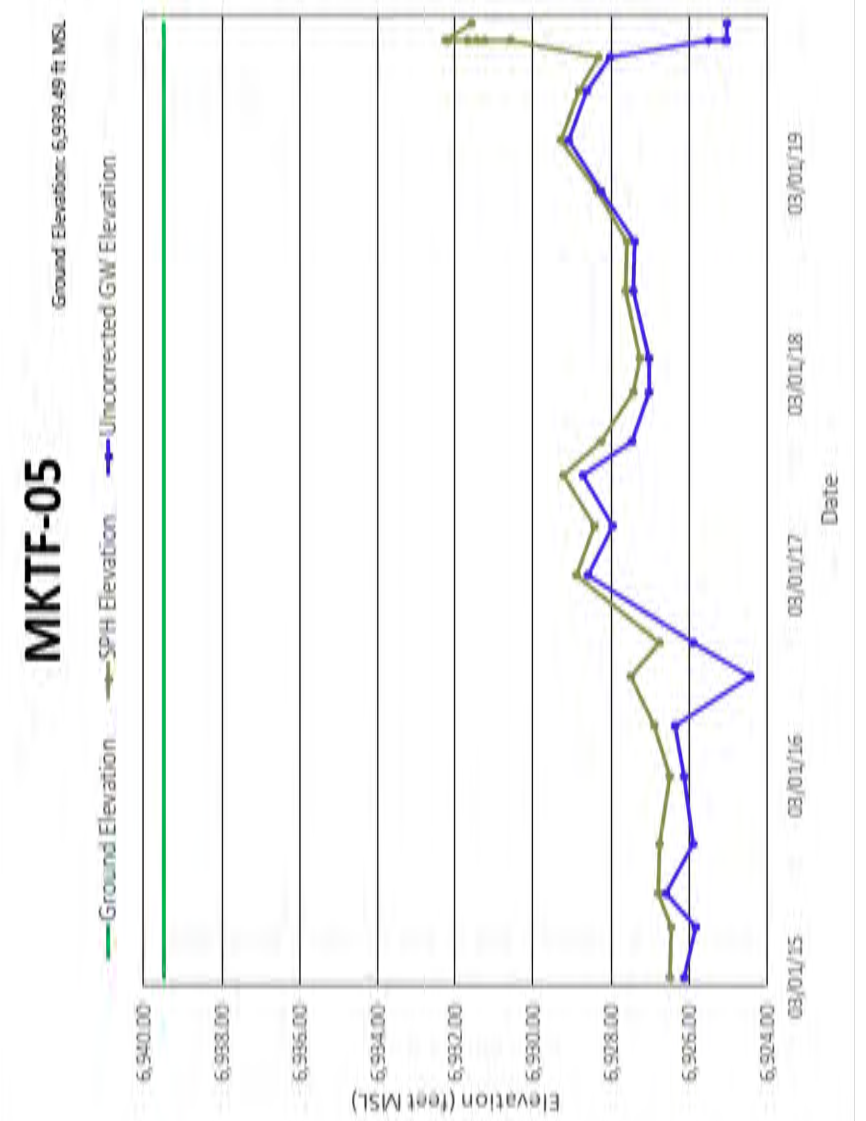
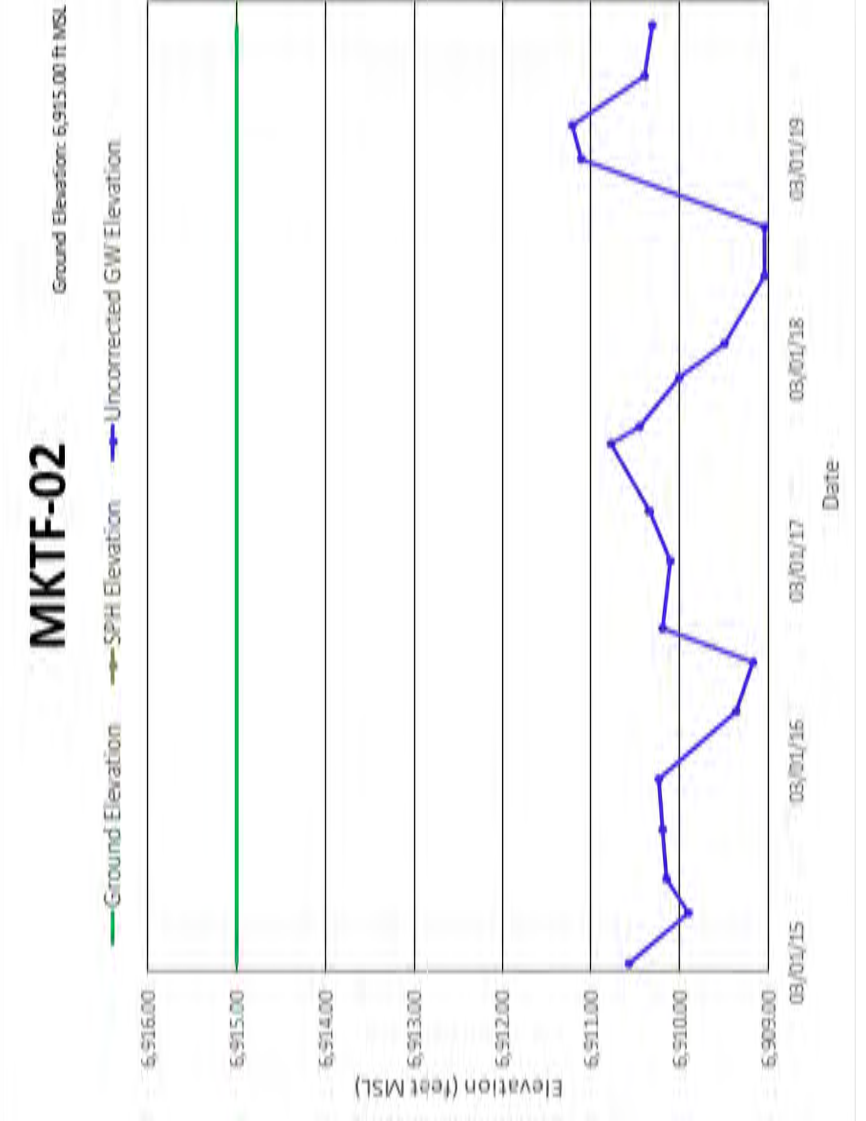
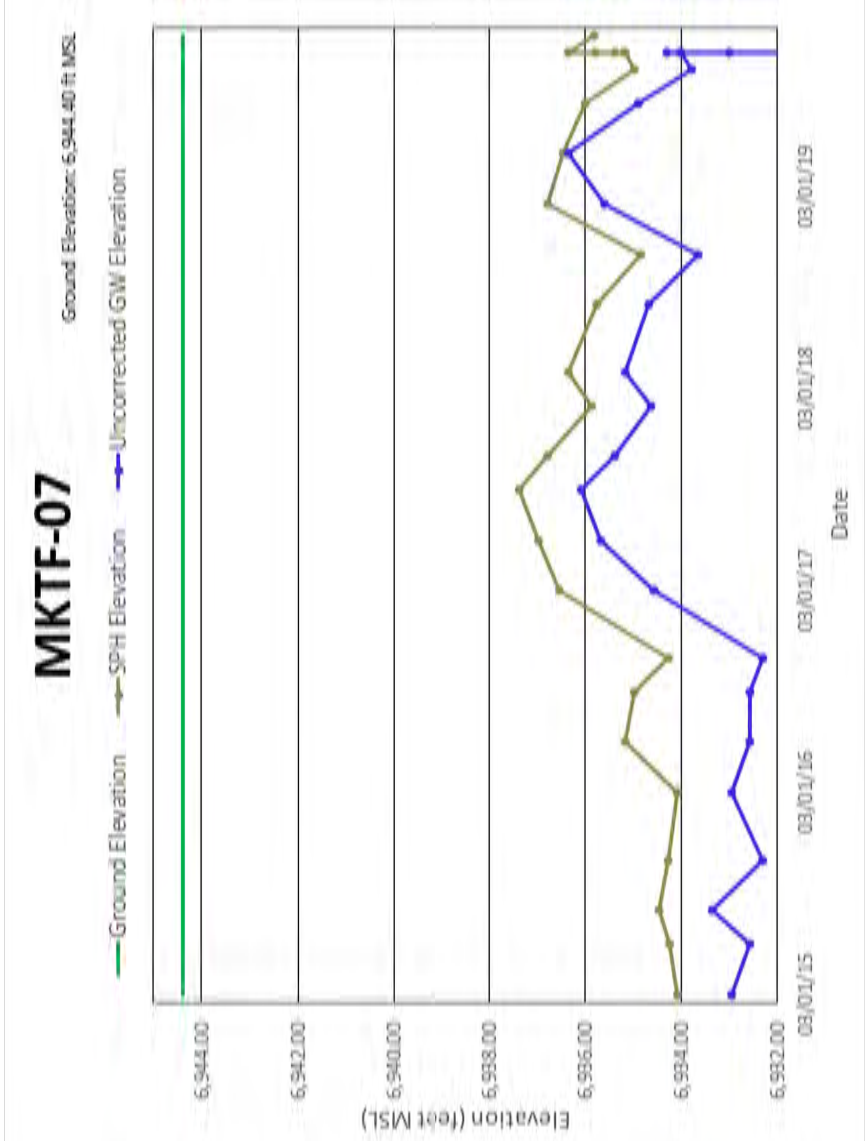
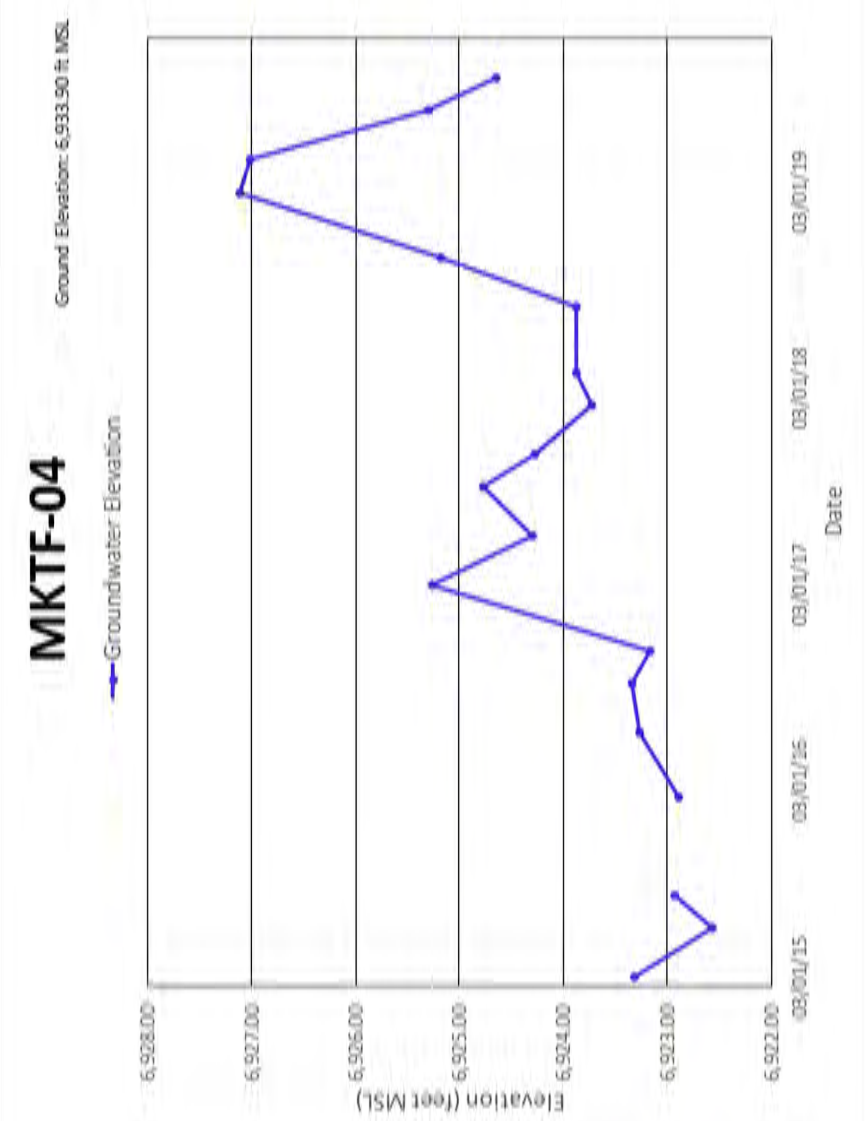
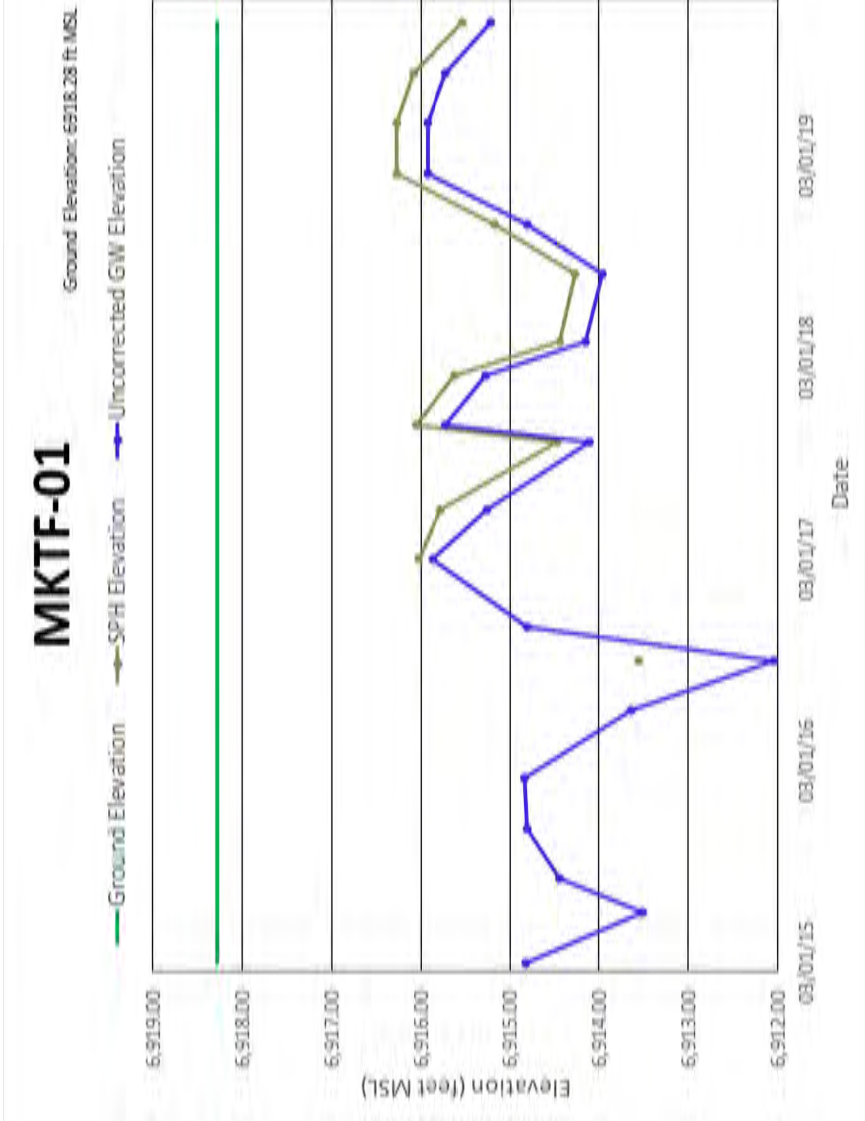
FLOW DIRECTION: →

**Figure 9**  
**Sonsela Water Elevation Map - 2020**  
**MARATHON - GALLUP REFINERY**



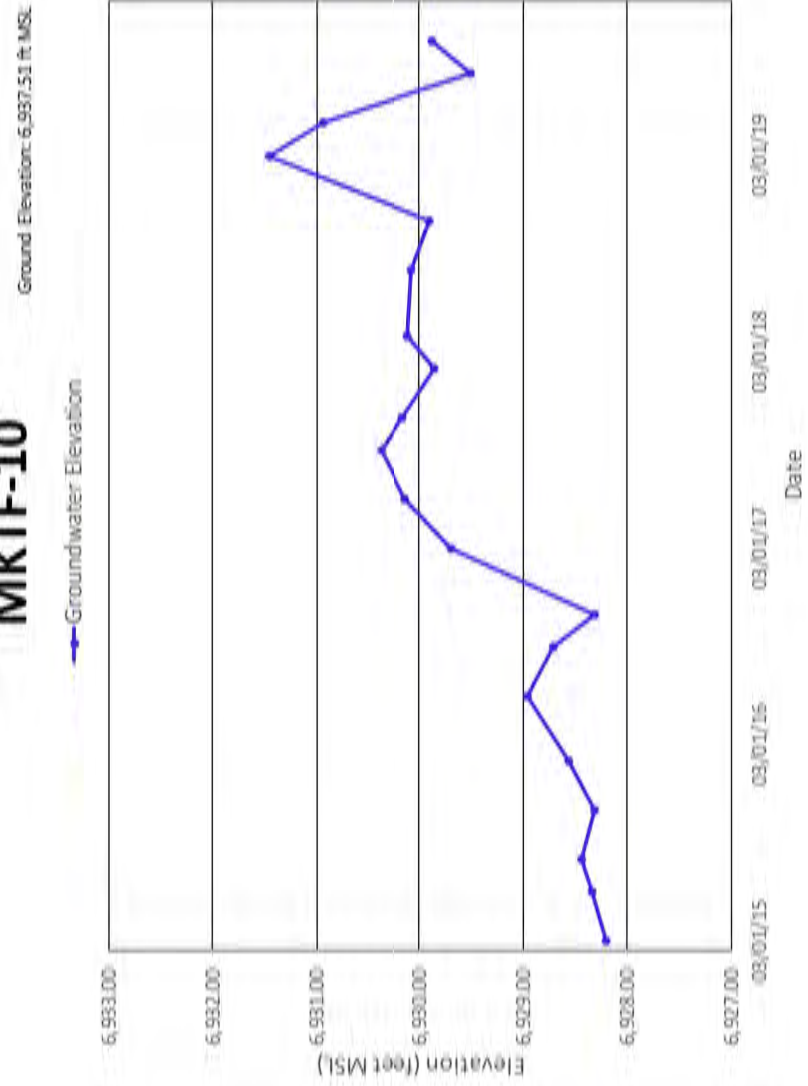




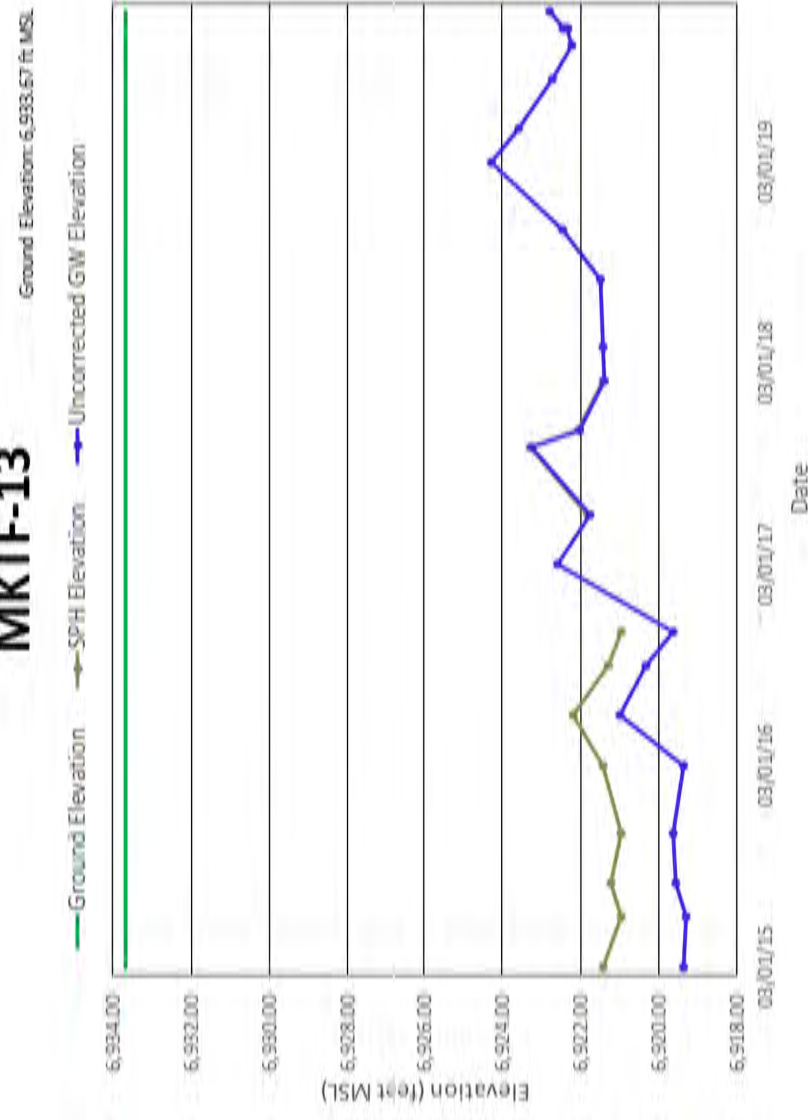




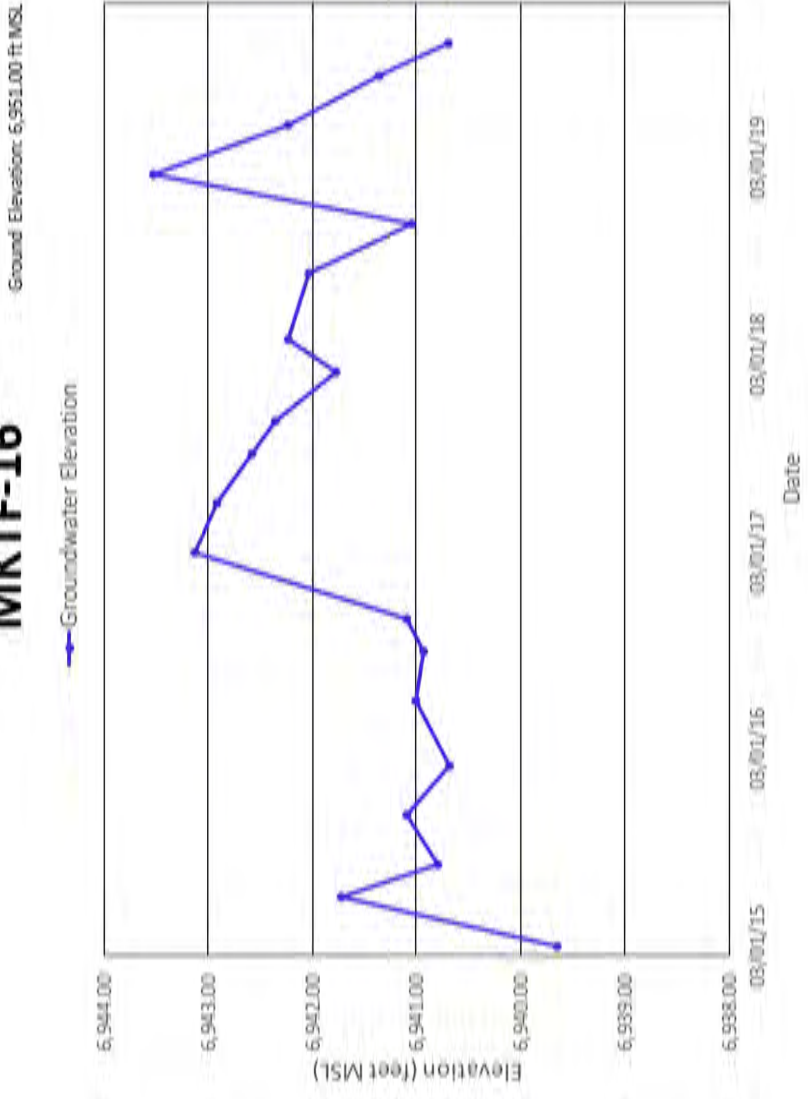
MKTF-10



MKTF-13



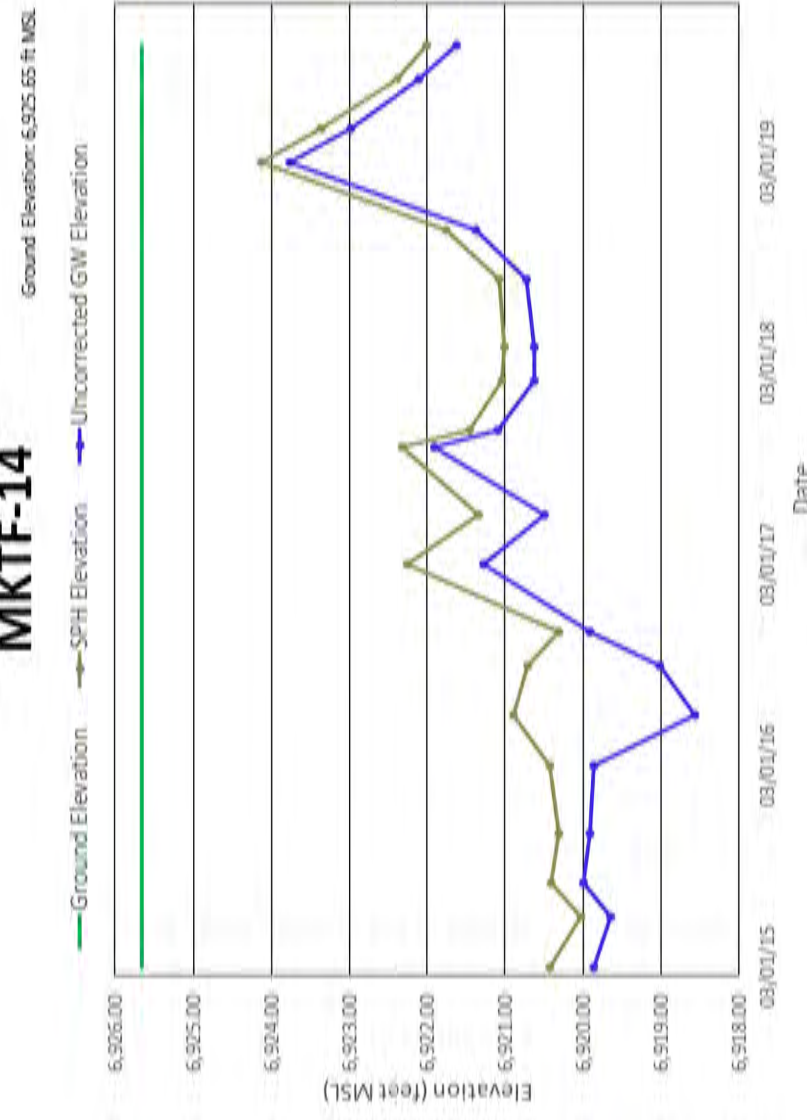
MKTF-16



MKTF-11



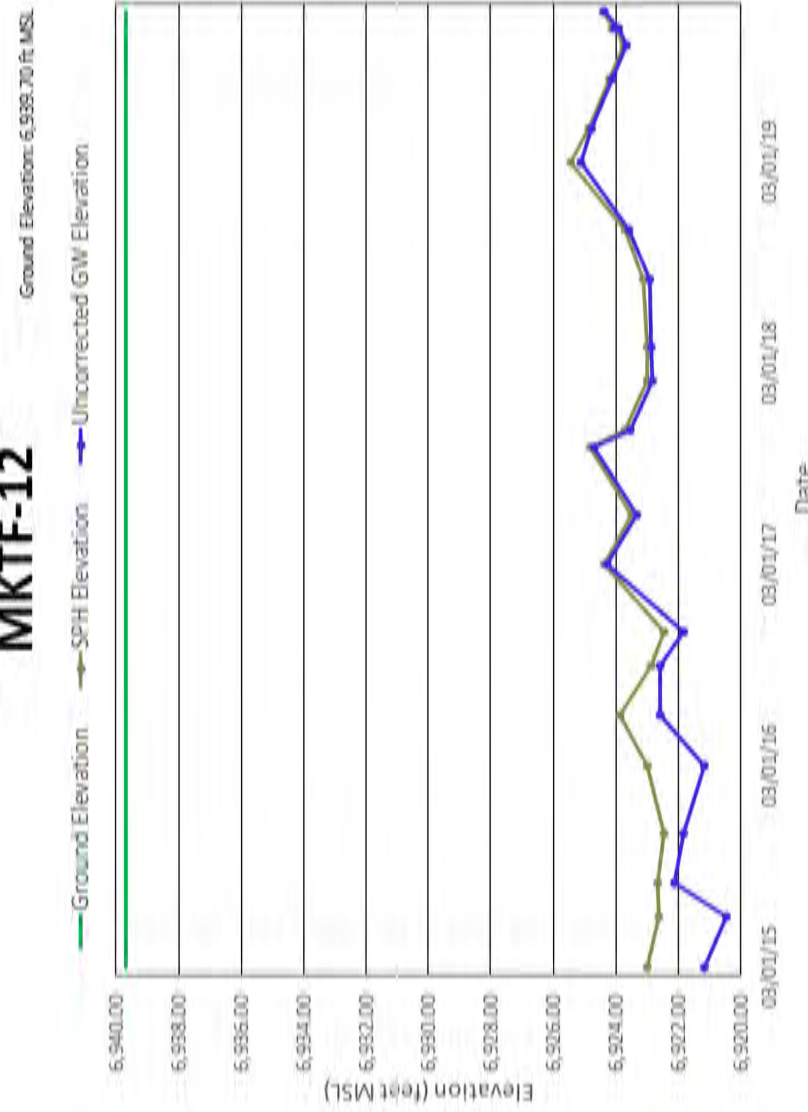
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MKTF-17



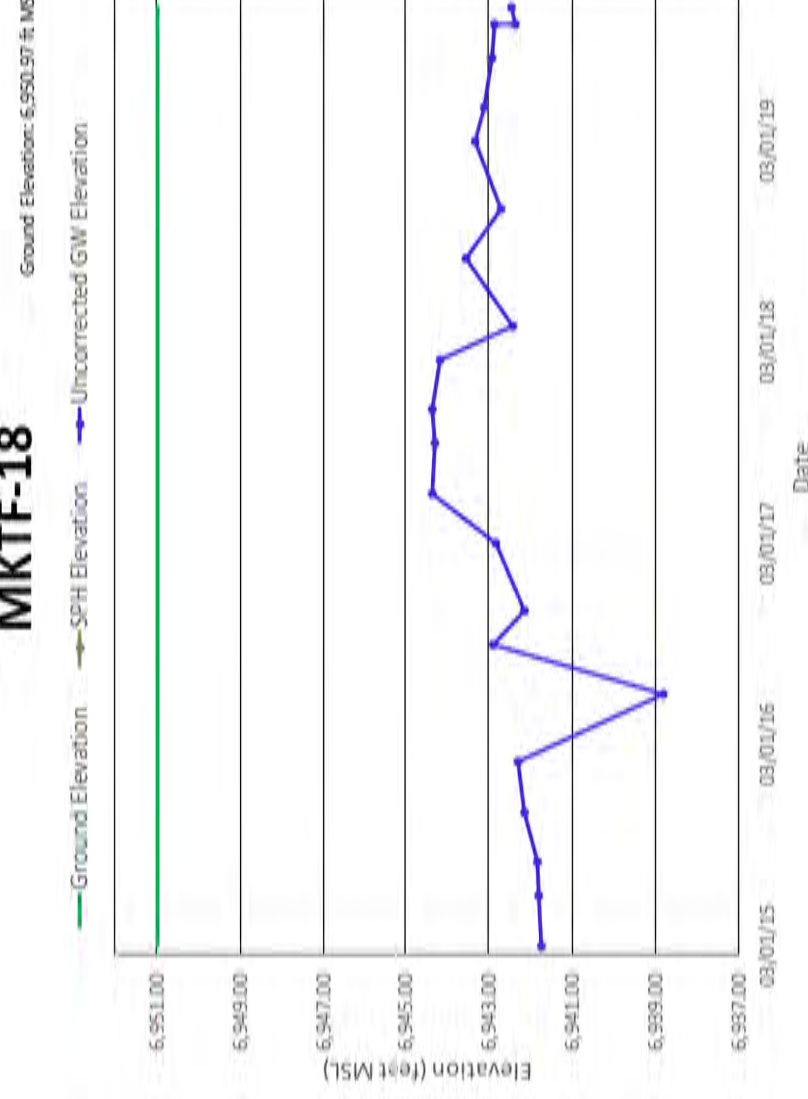
MKTF-12



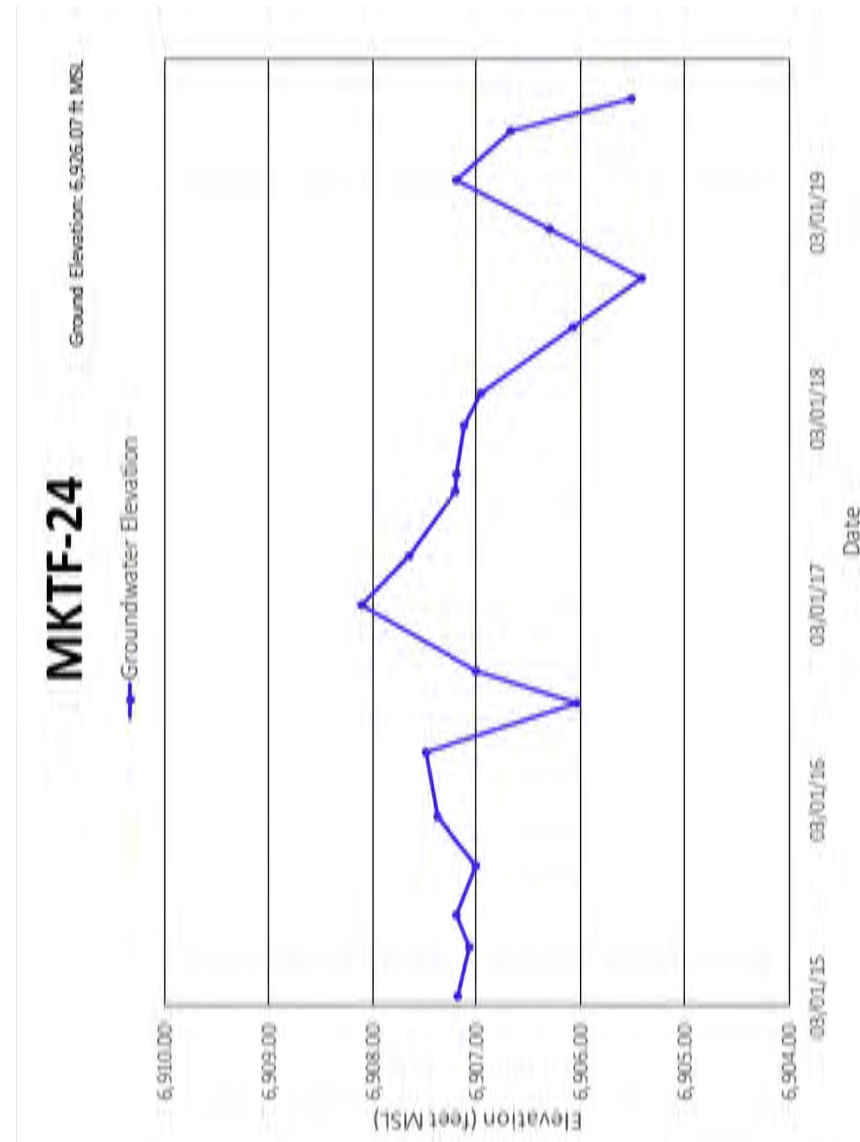
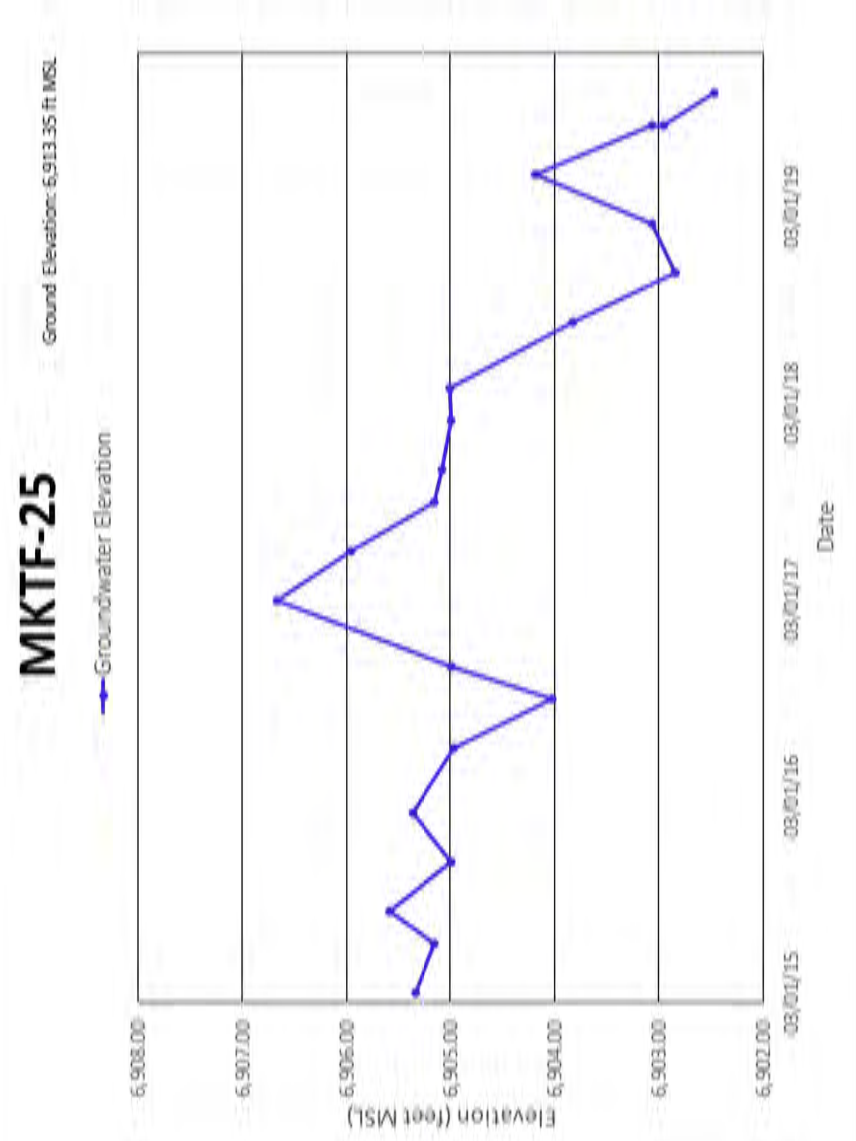
MKTF-15



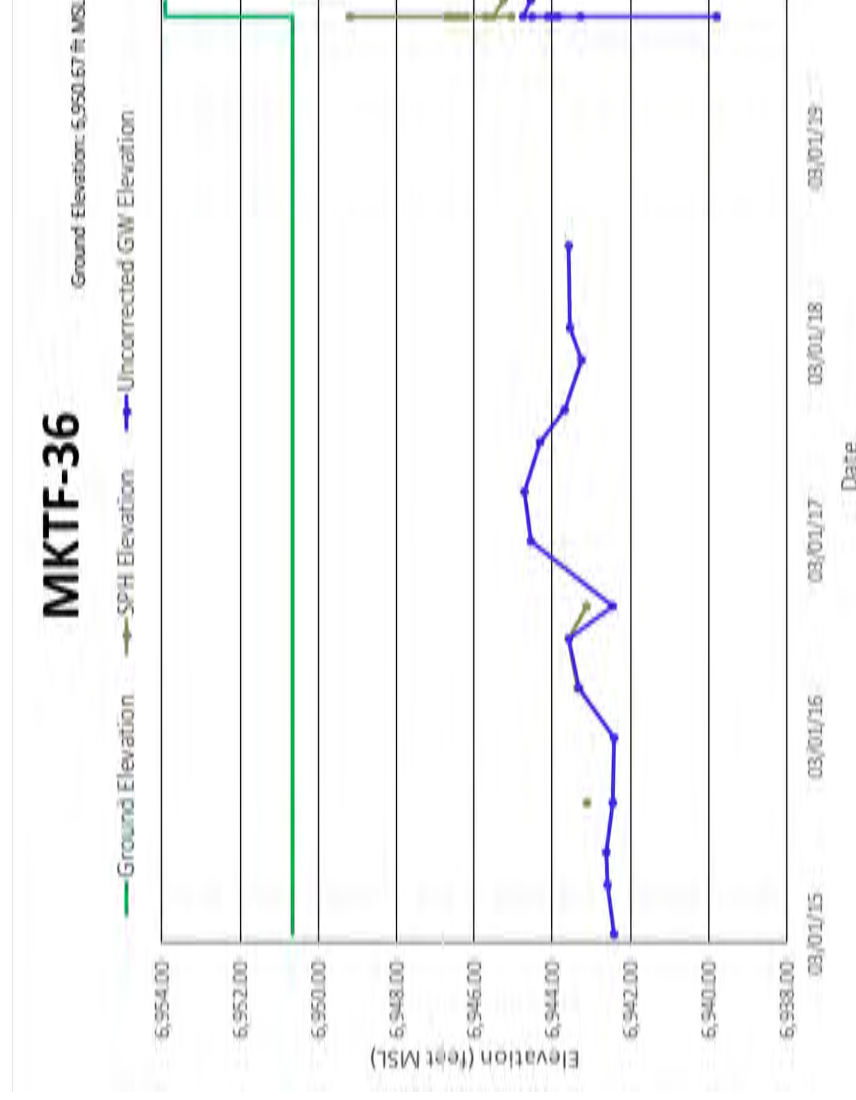
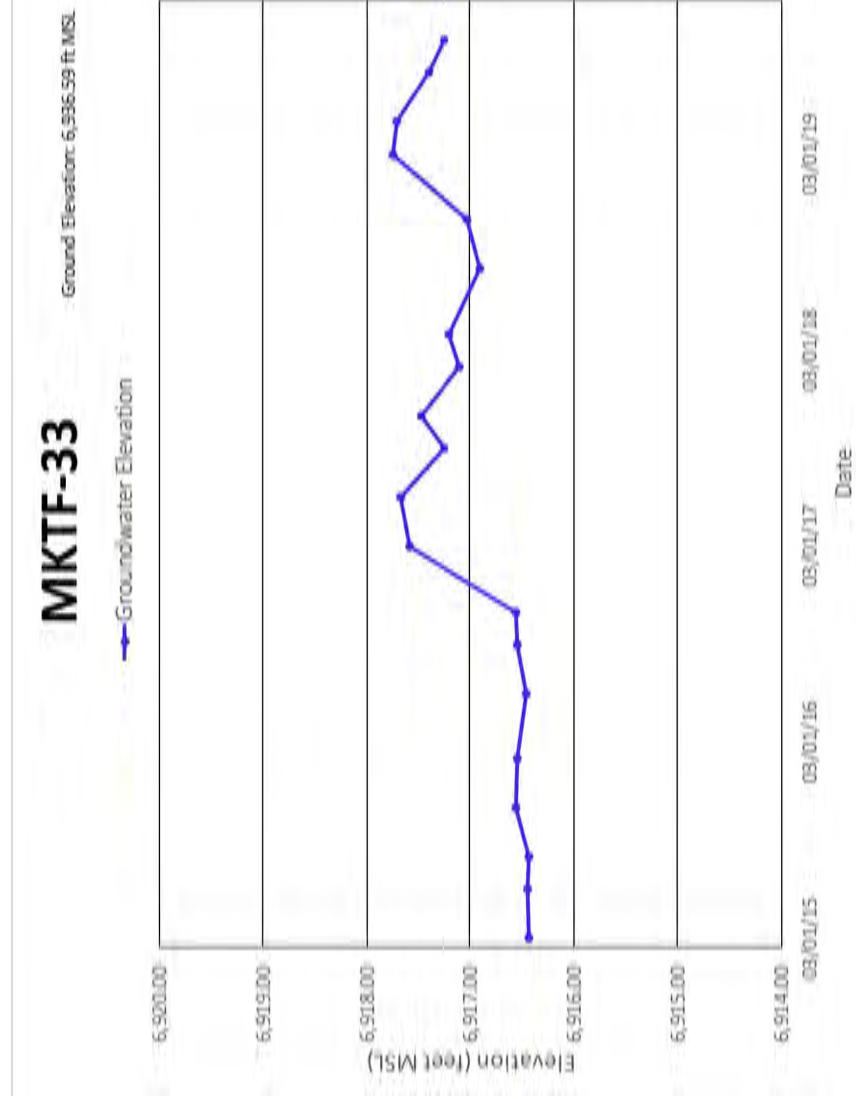
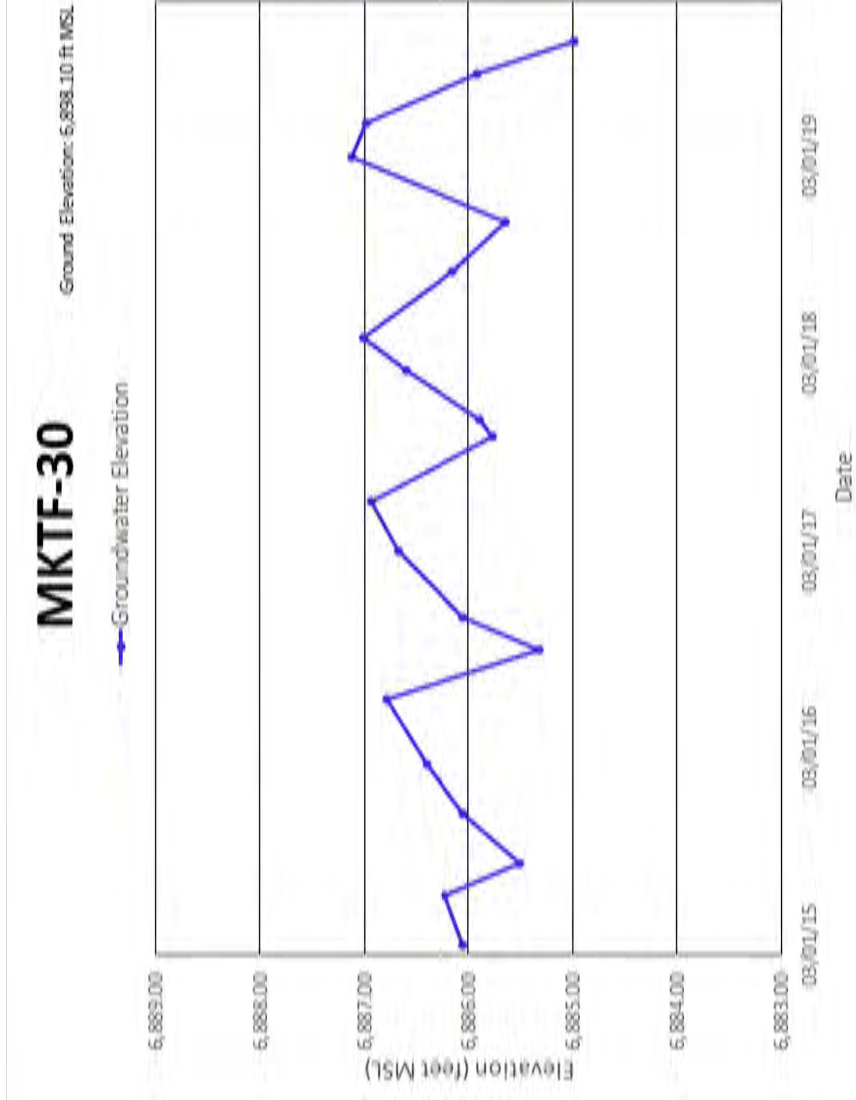
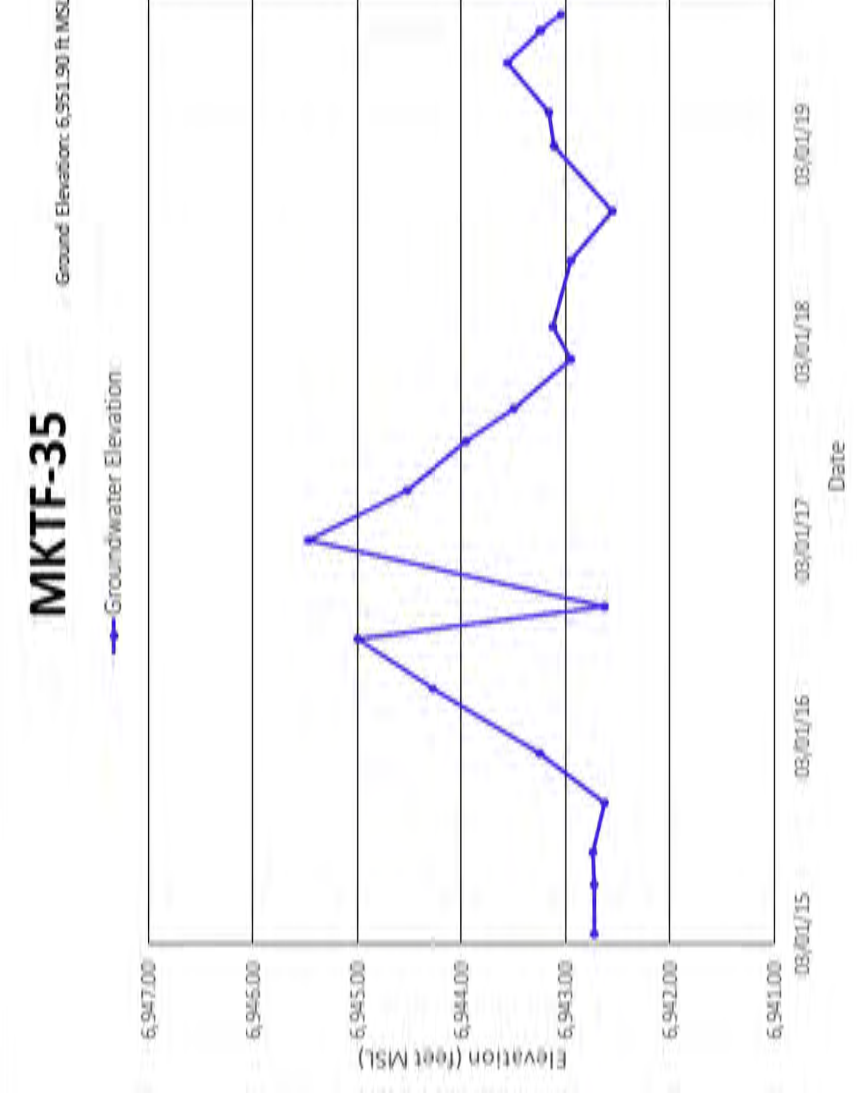
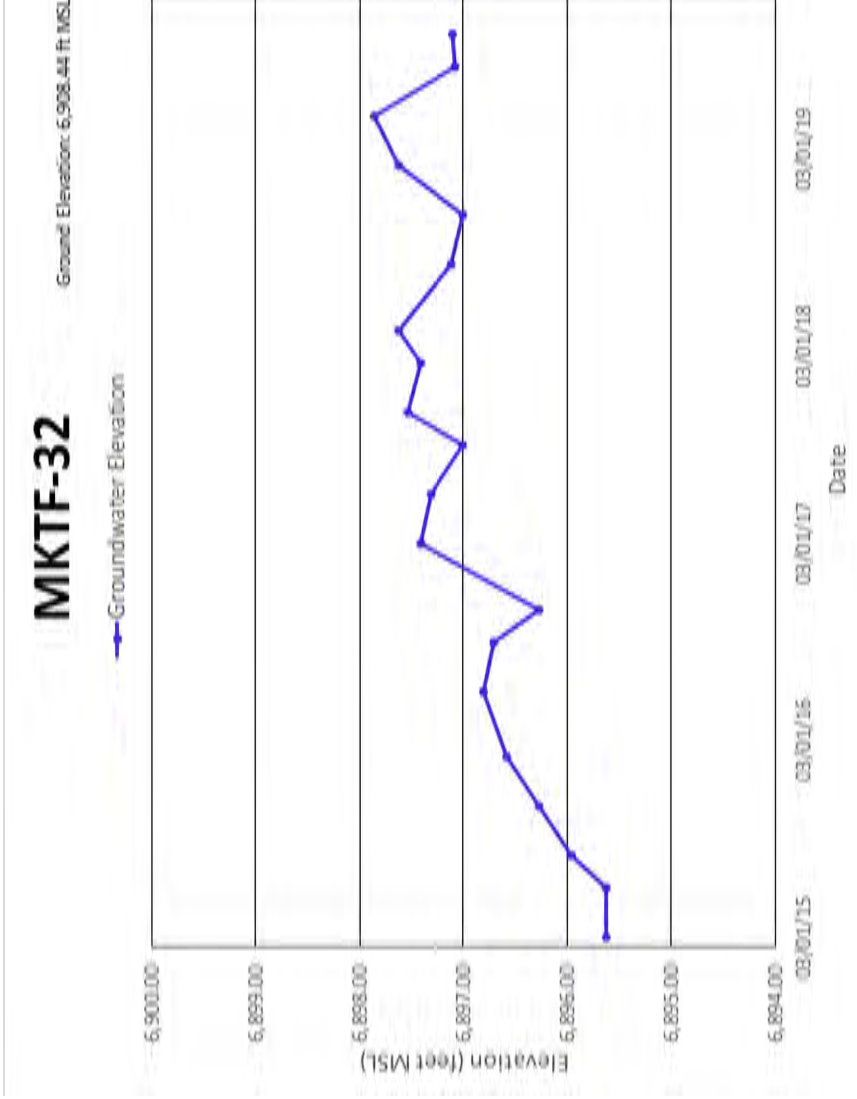
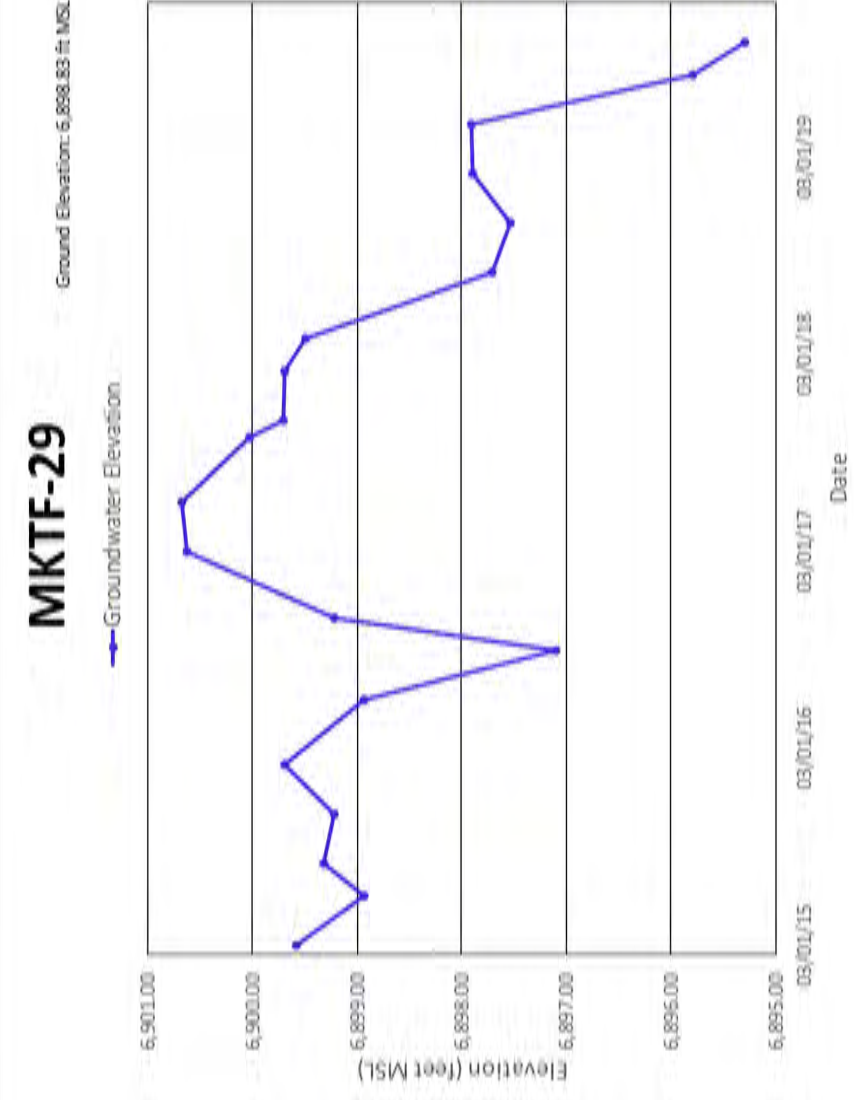
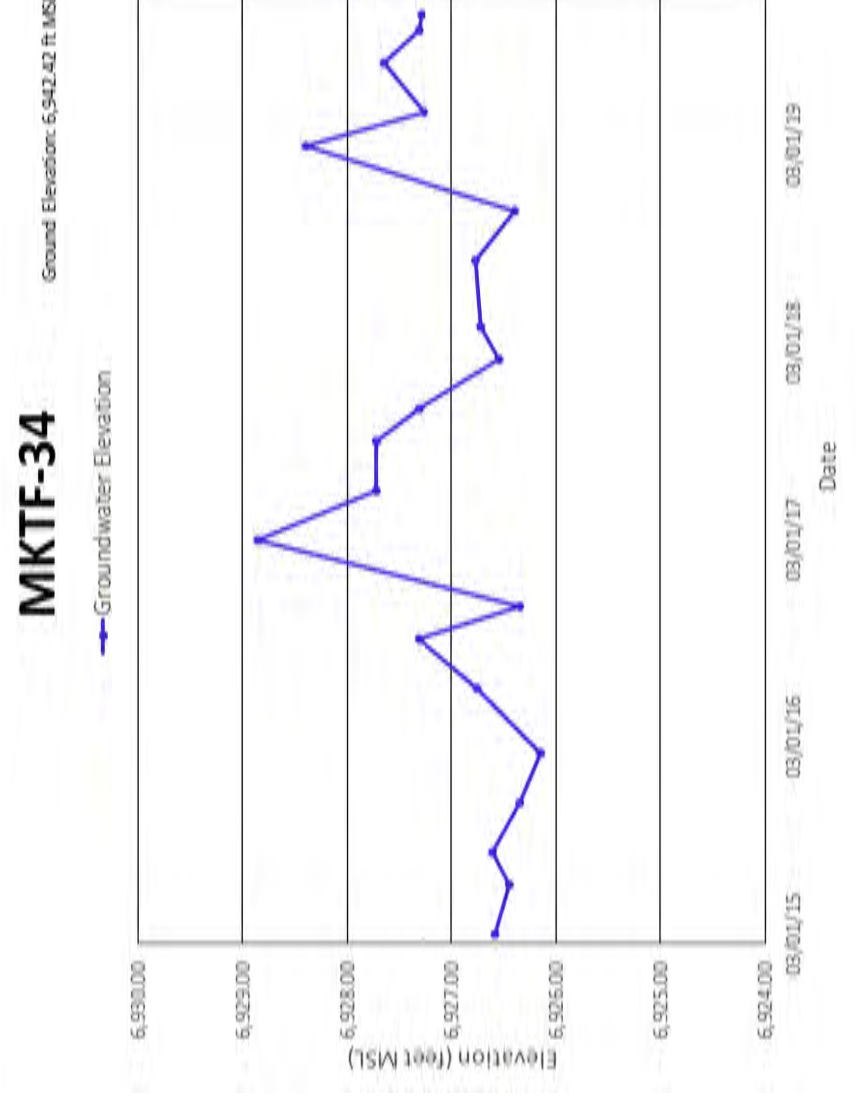
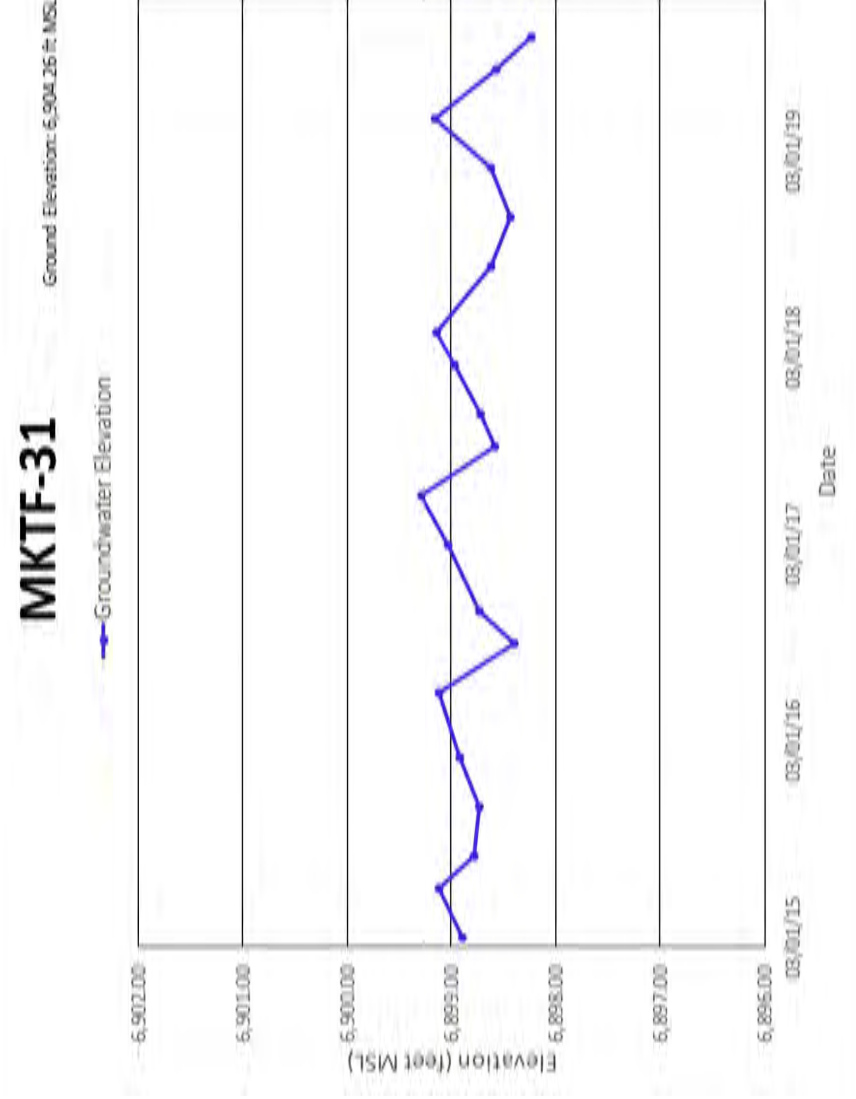
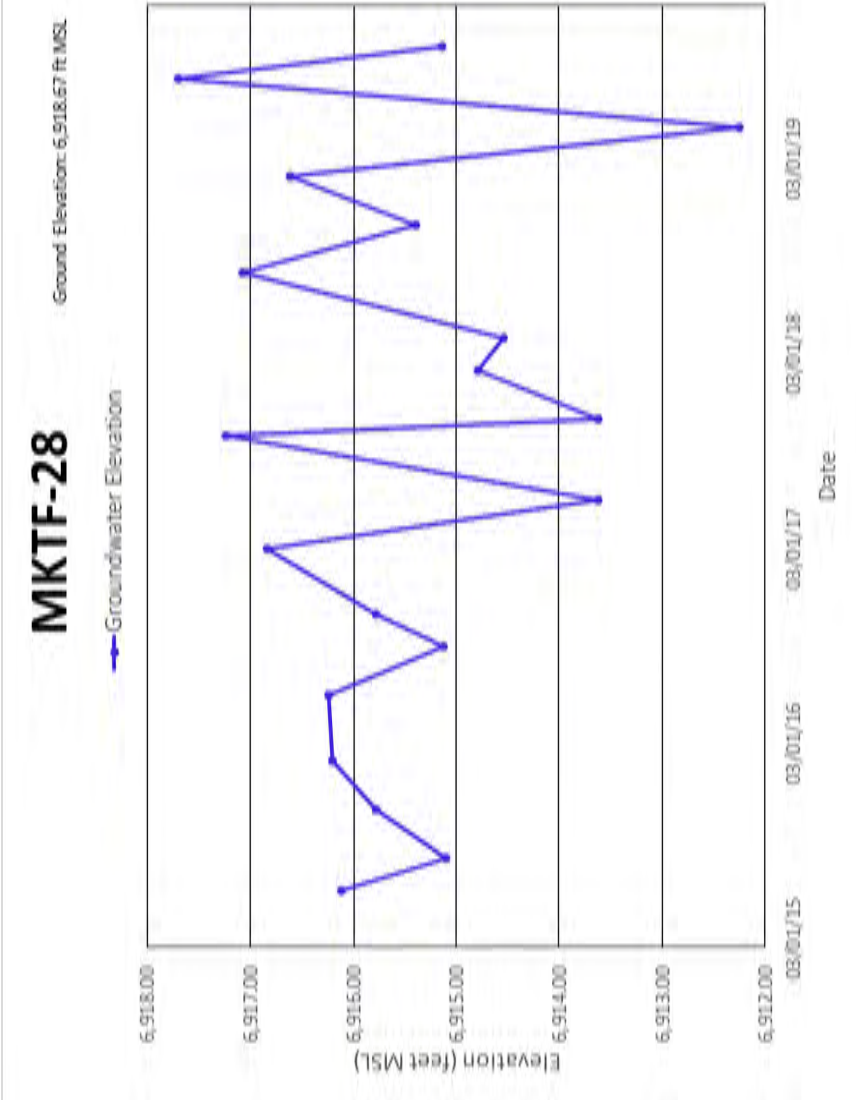
MKTF-18



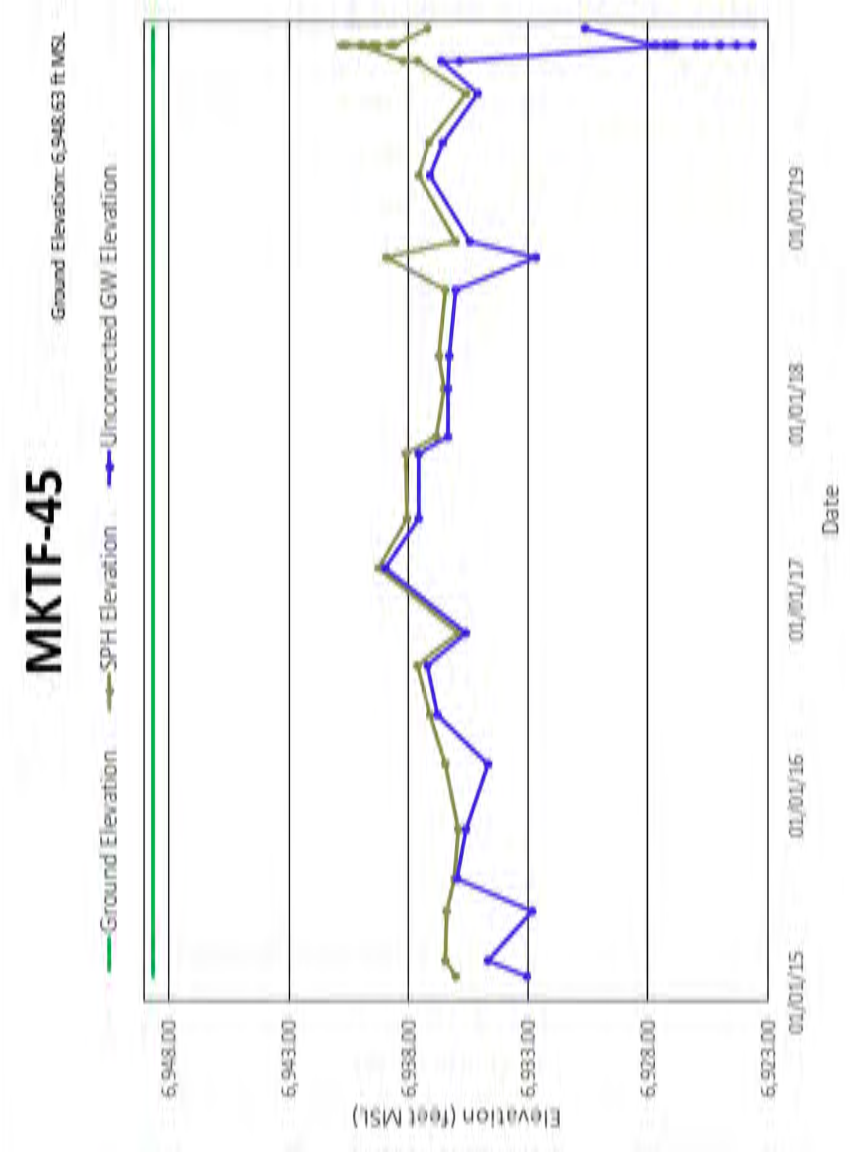
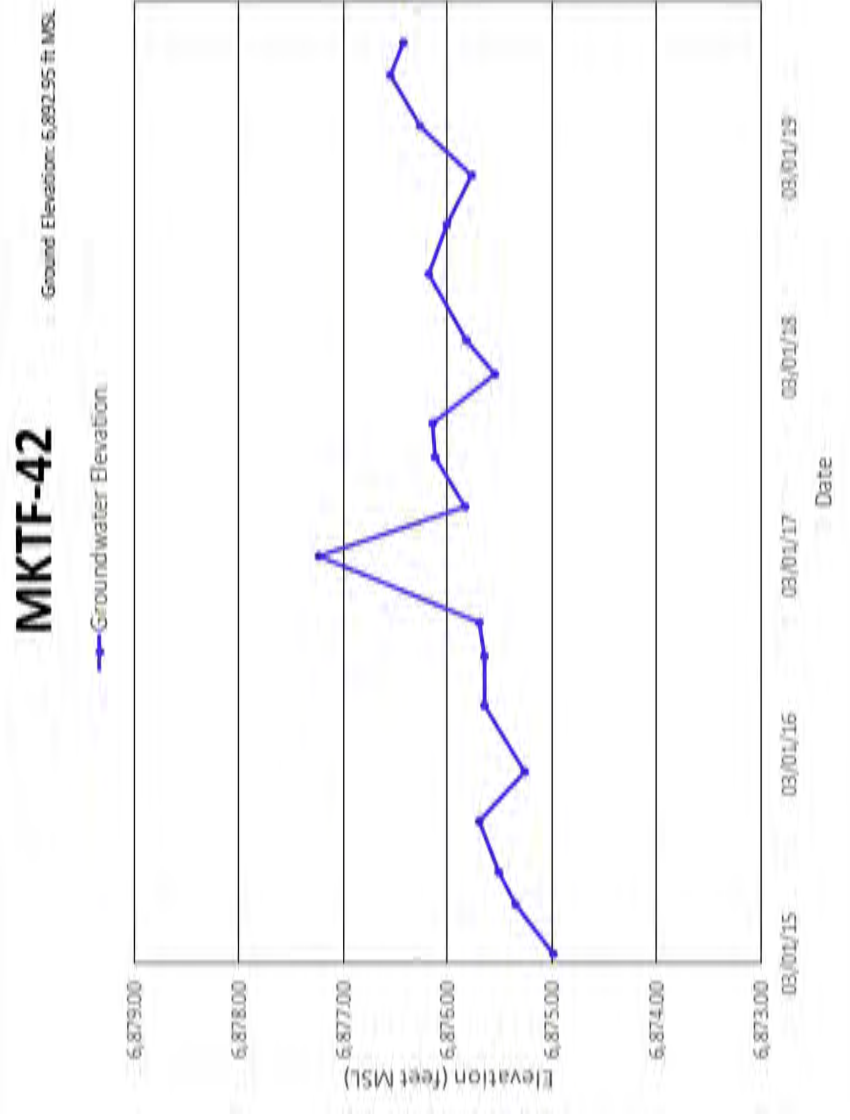
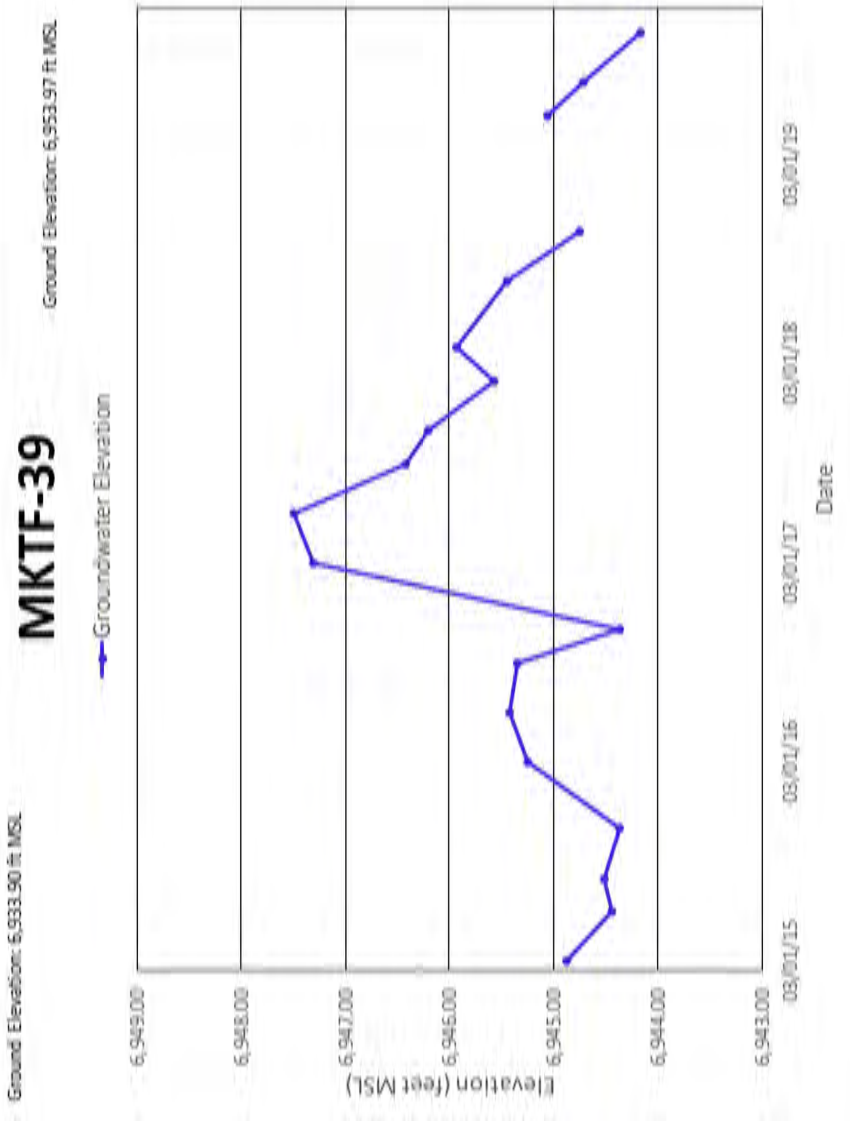
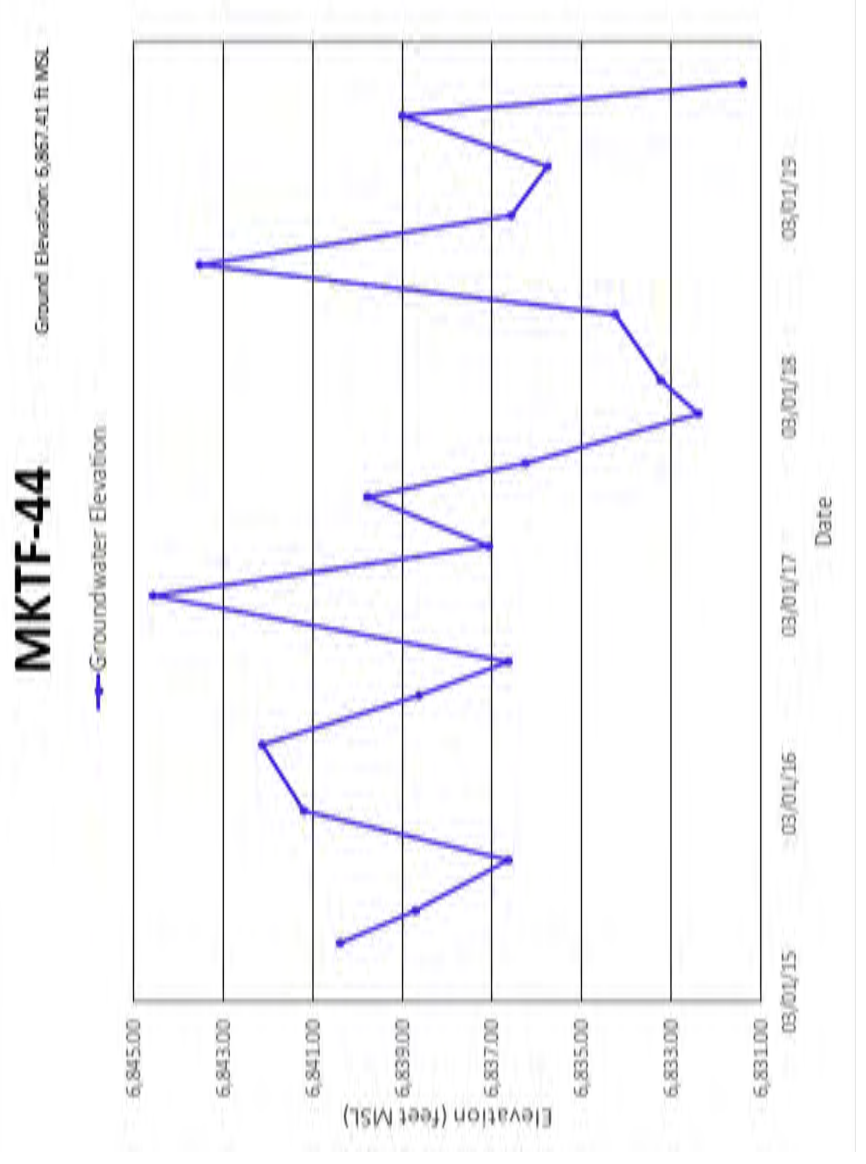
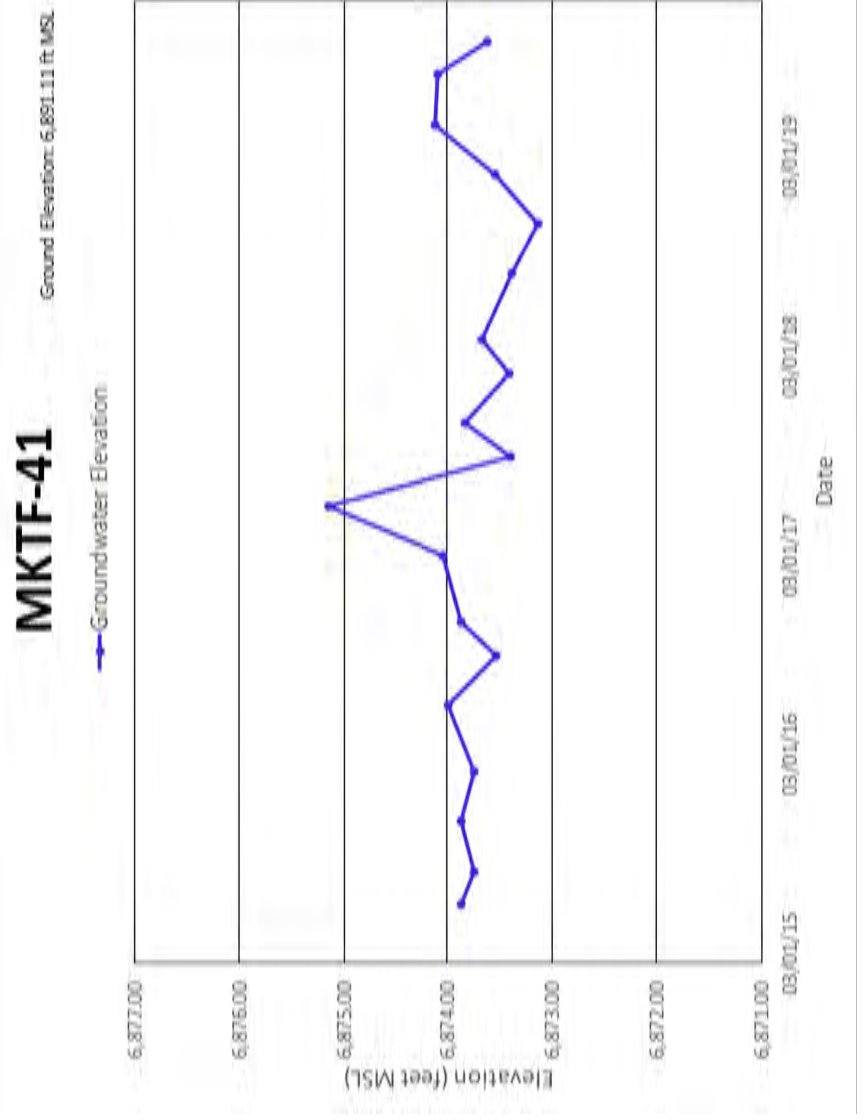
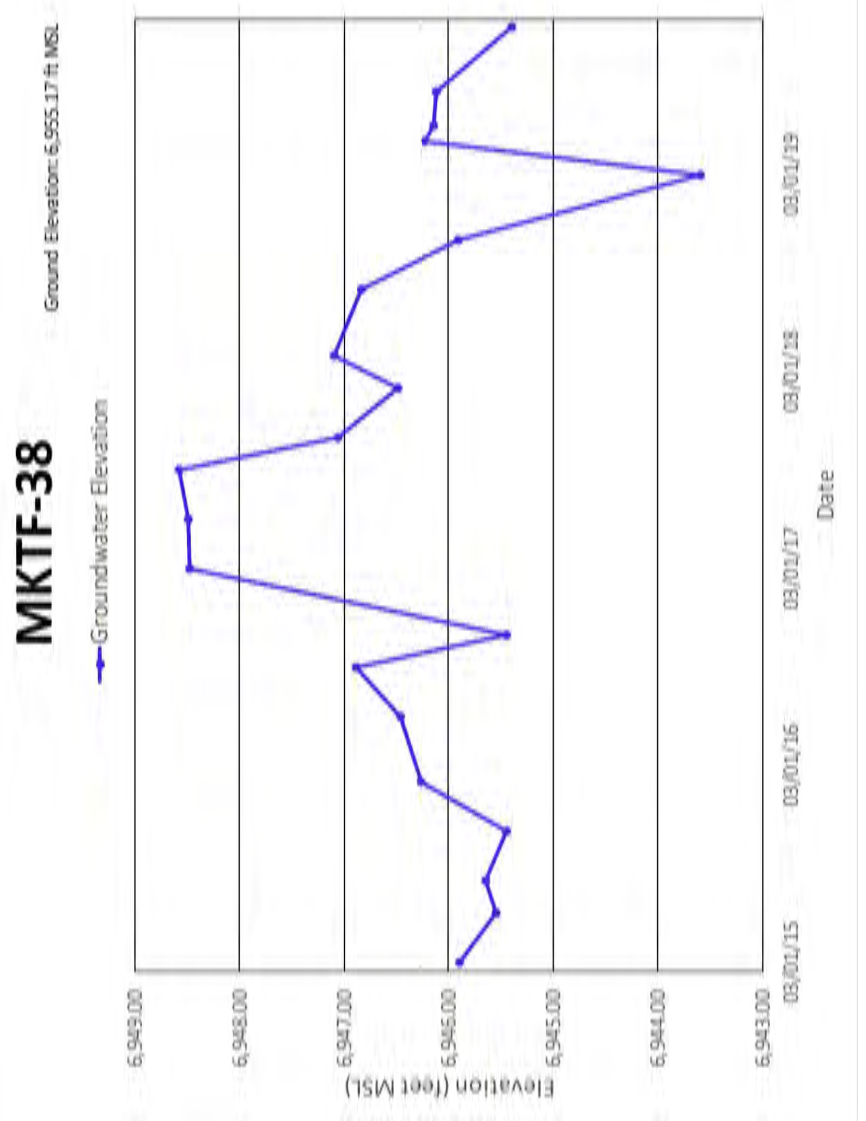
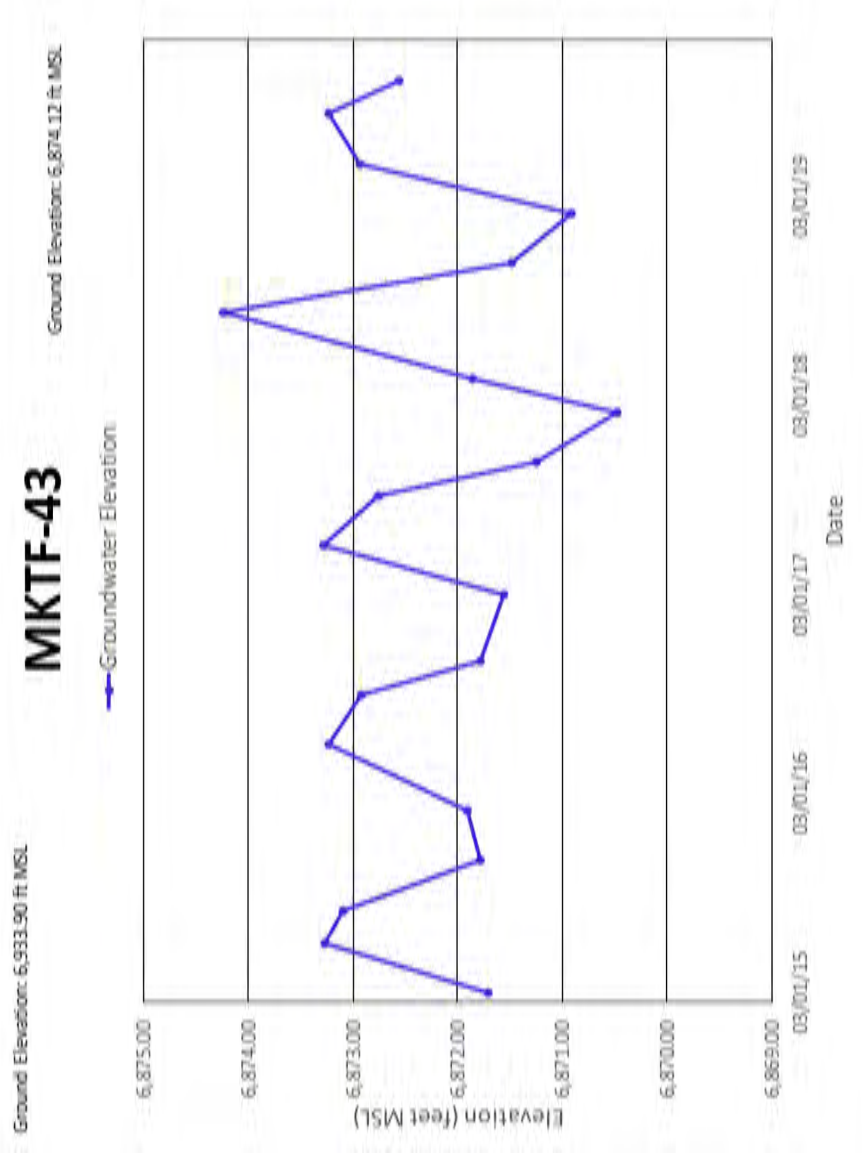
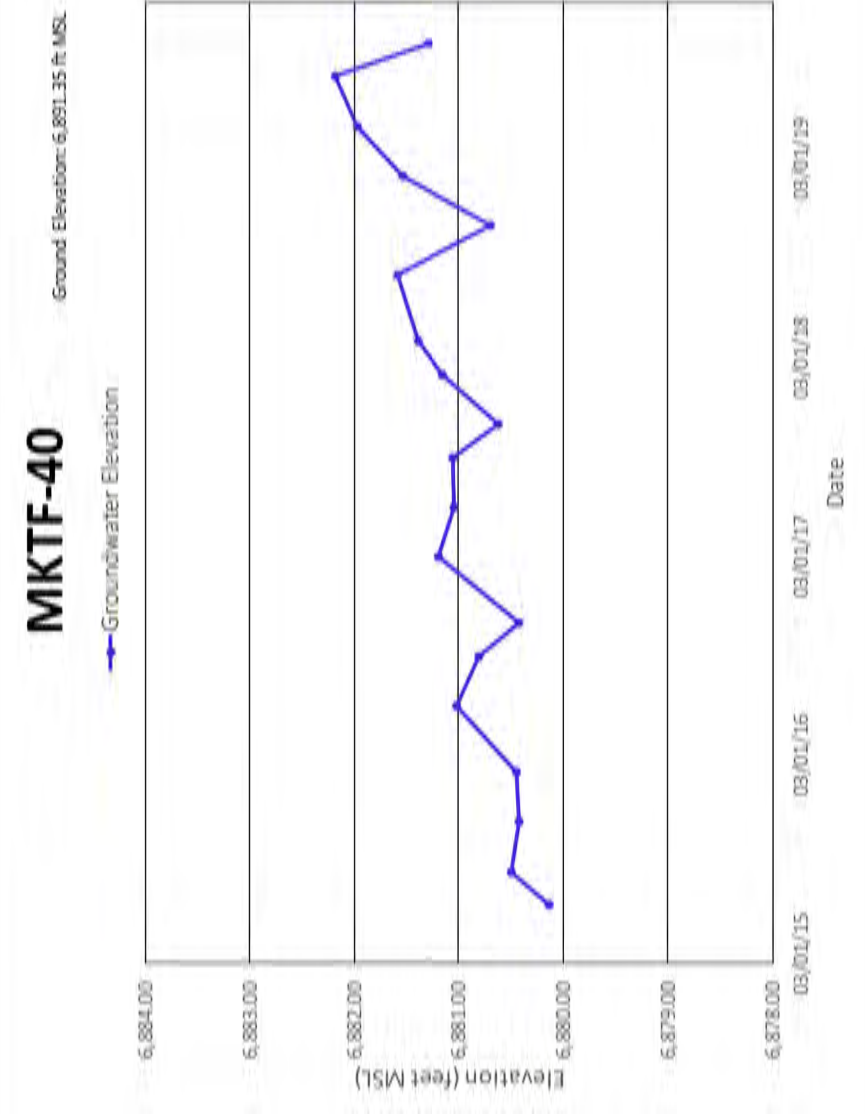












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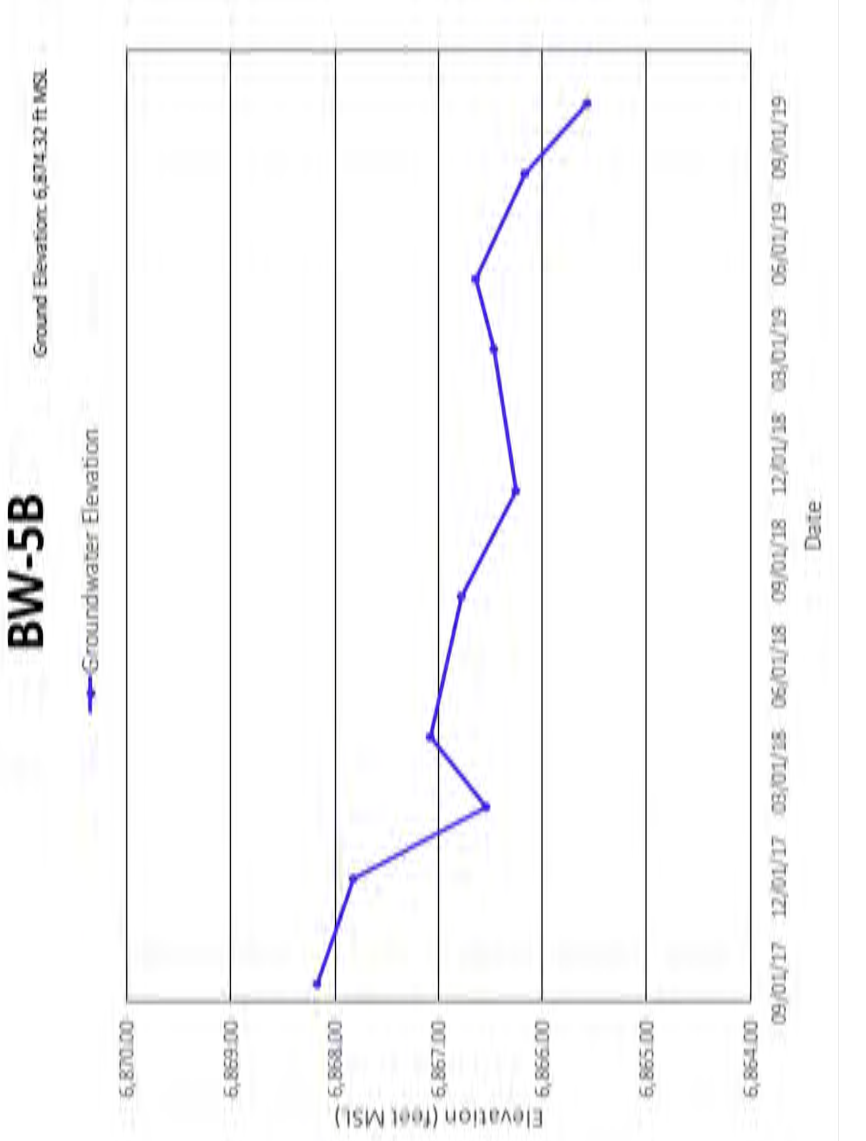
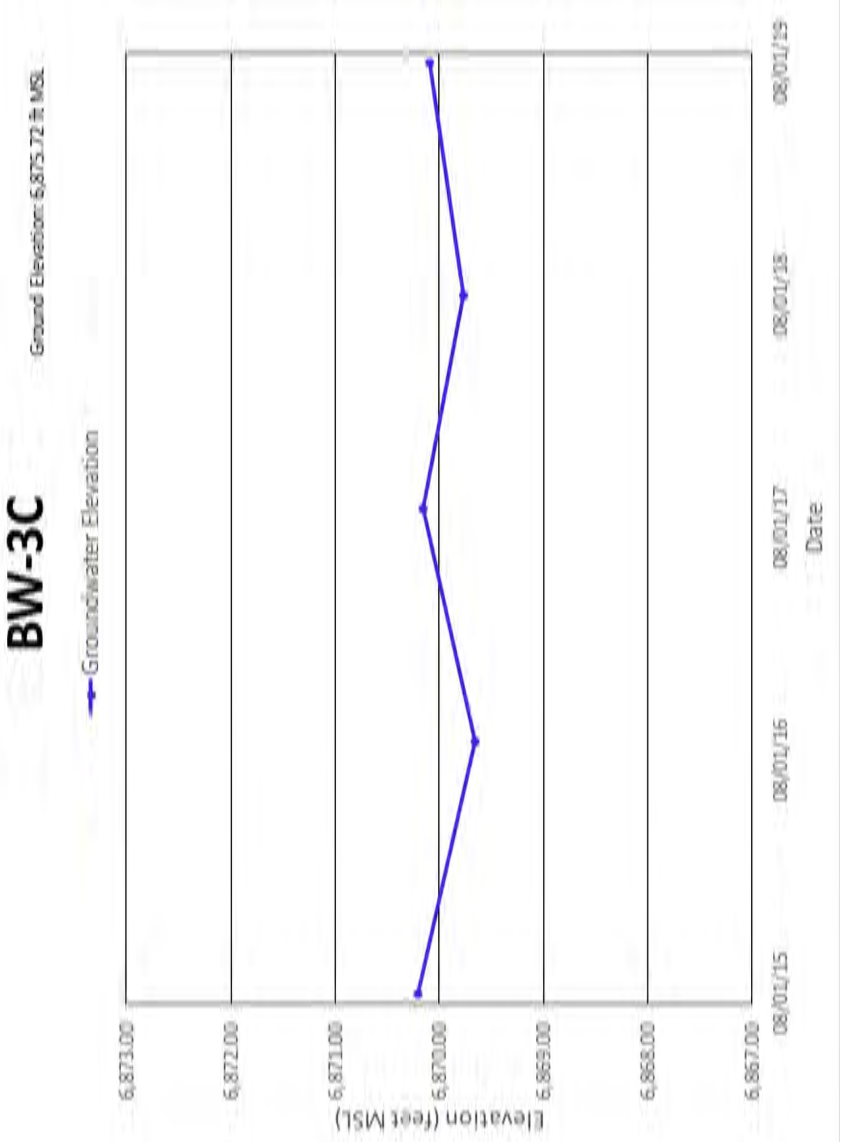
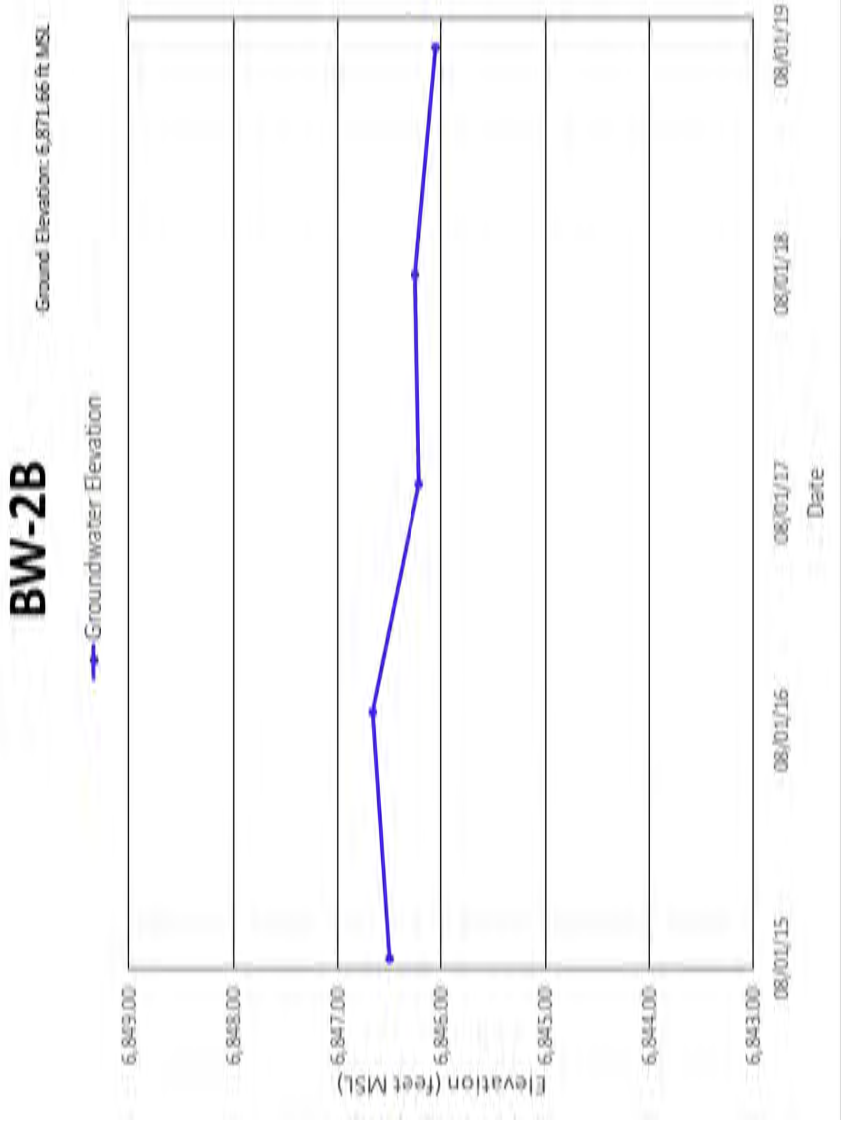
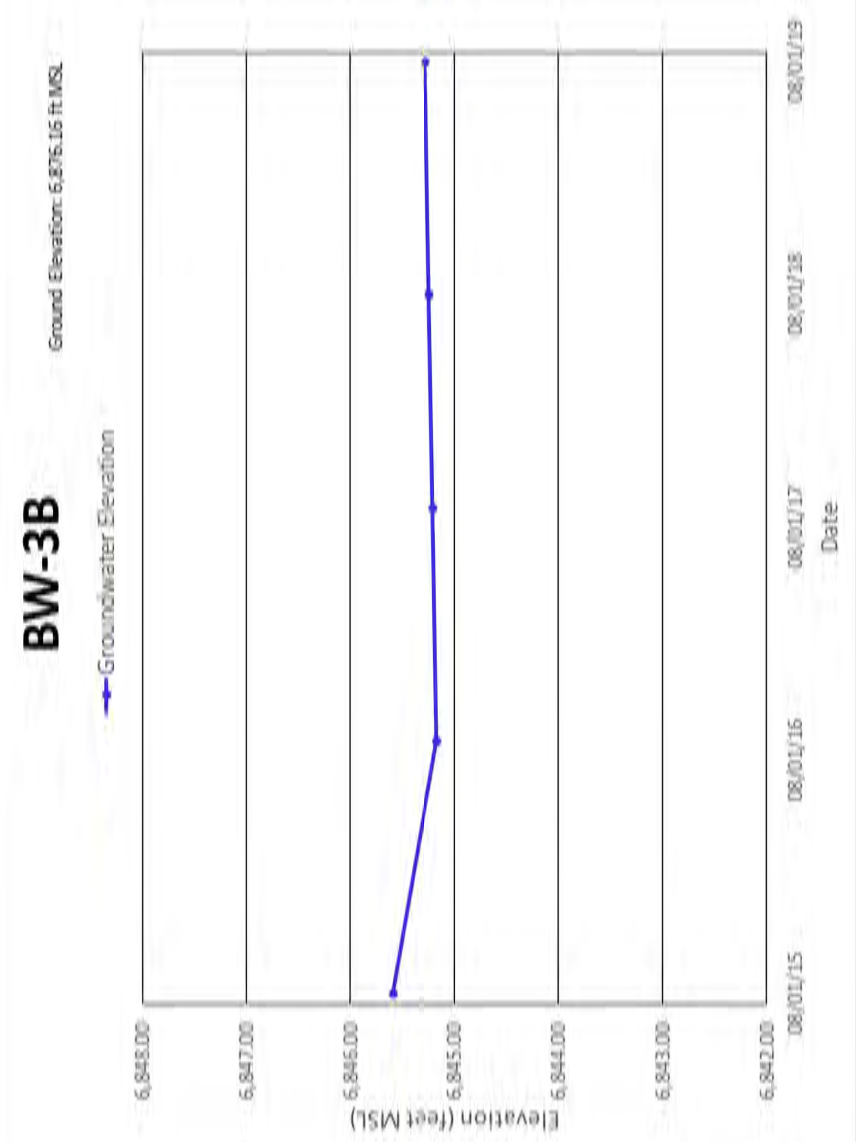
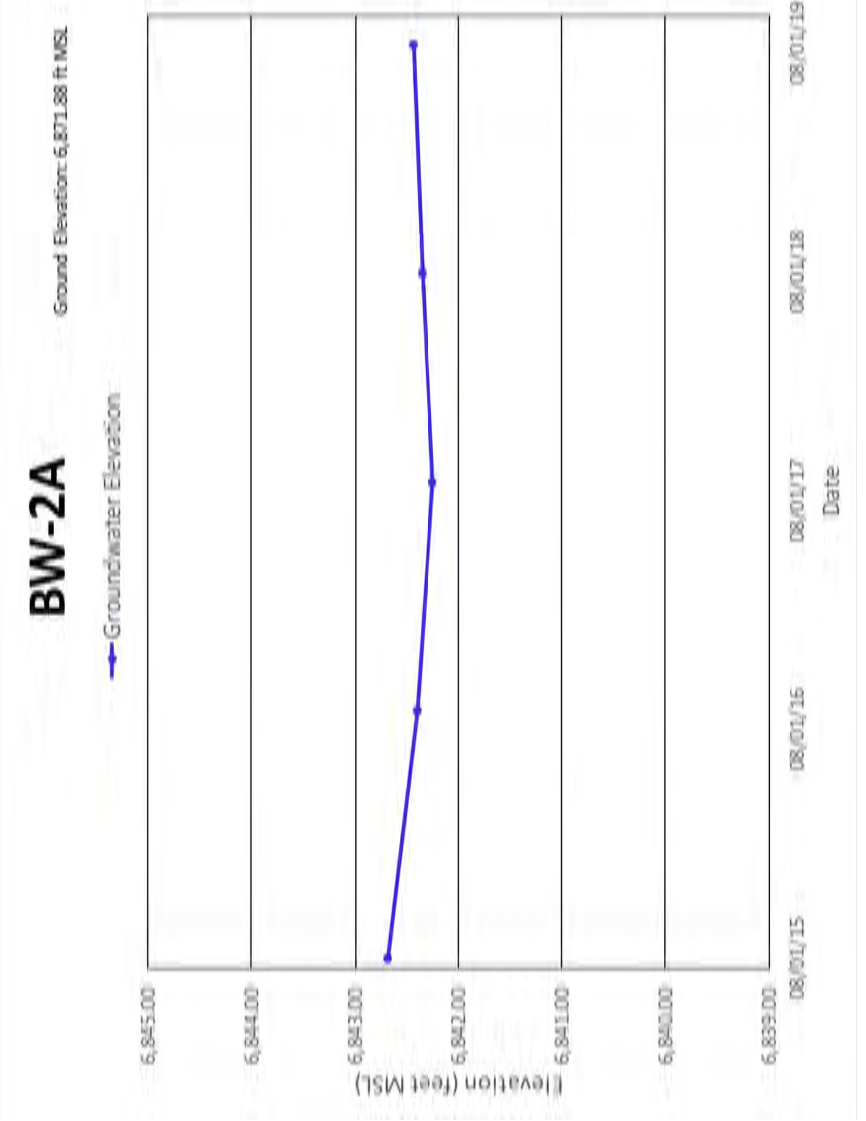
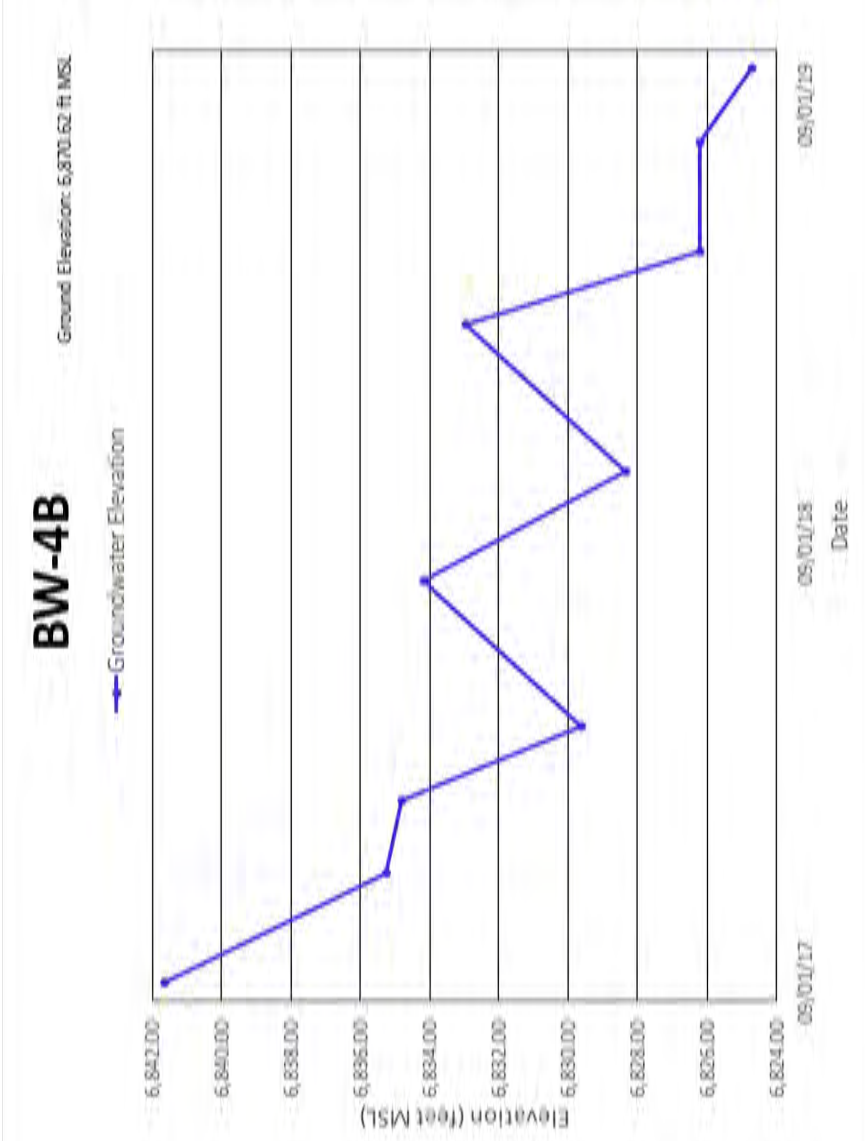
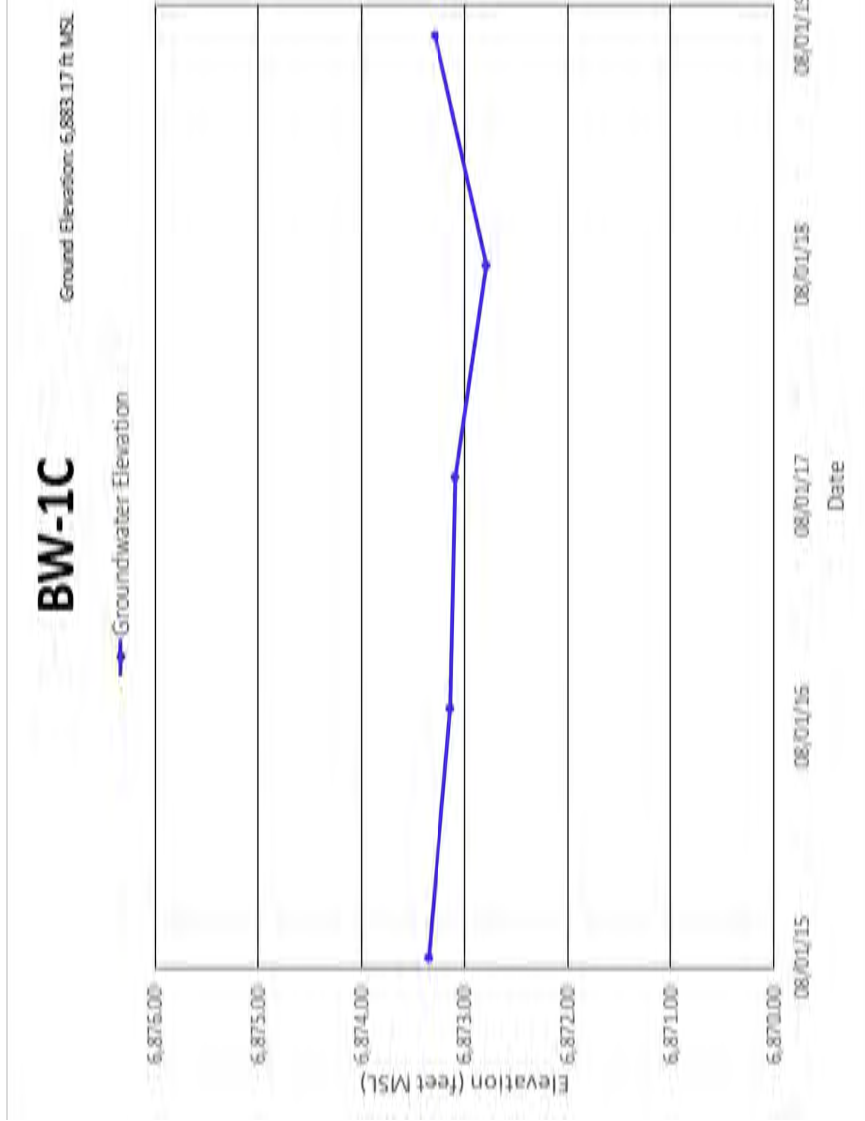
**FIGURE 11E**

**GROUNDWATER ELEVATIONS VS TIME - 2019**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

Drawn By: REP Checked By: BM Scale: NONE Date: 9/15/2020 File: 697-GWMON-2019-FIGS-11A-11K







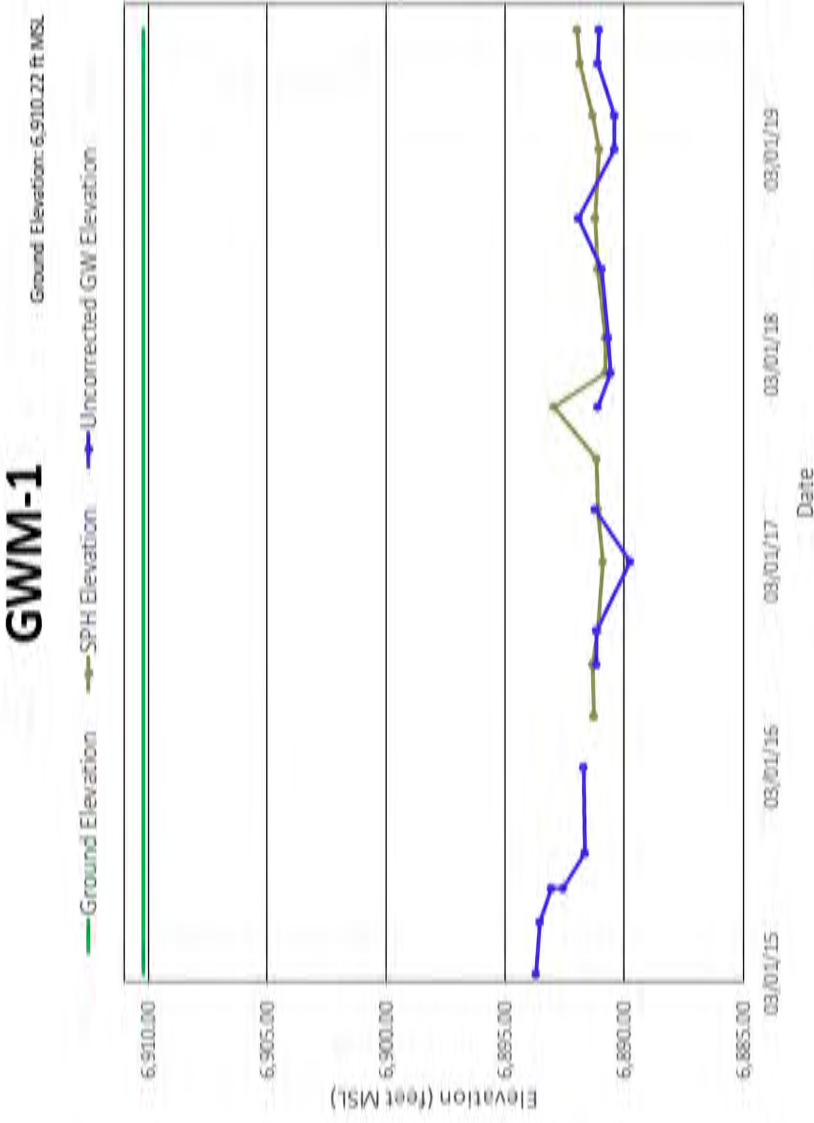
MKTF-46



MKTF-49



GWM-1



MKTF-47



MKTF-50



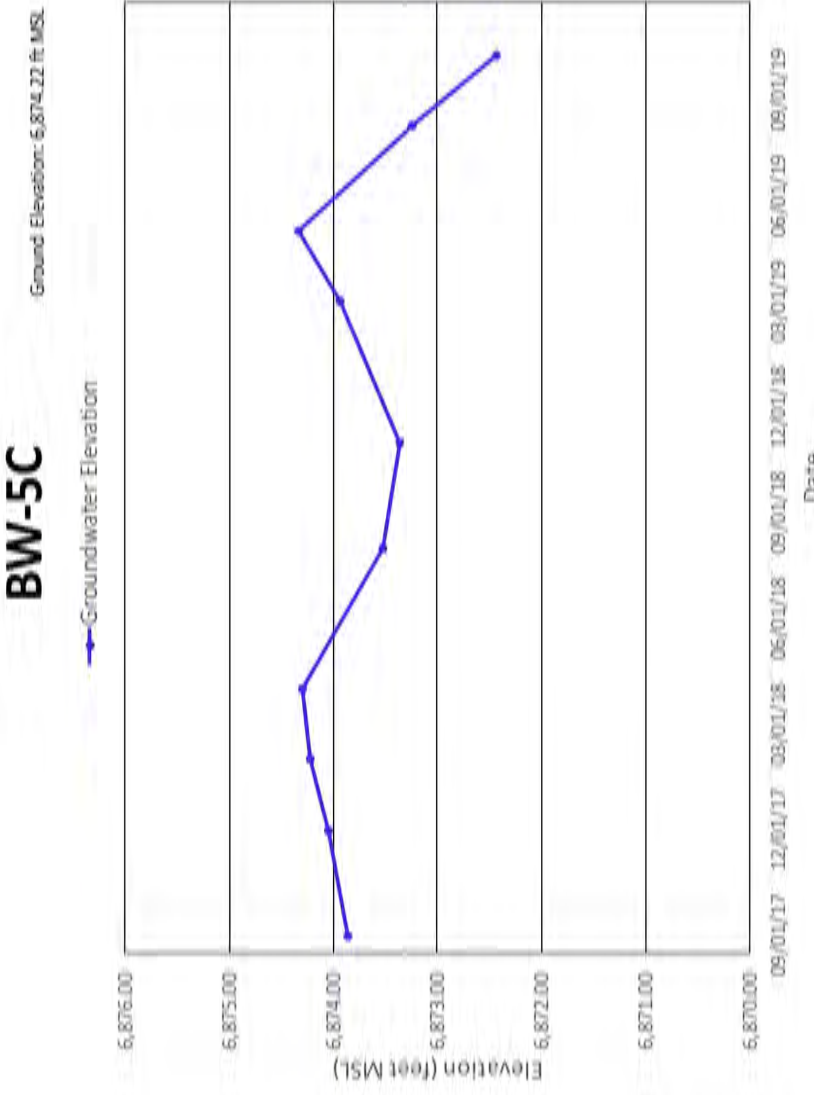
KA-3



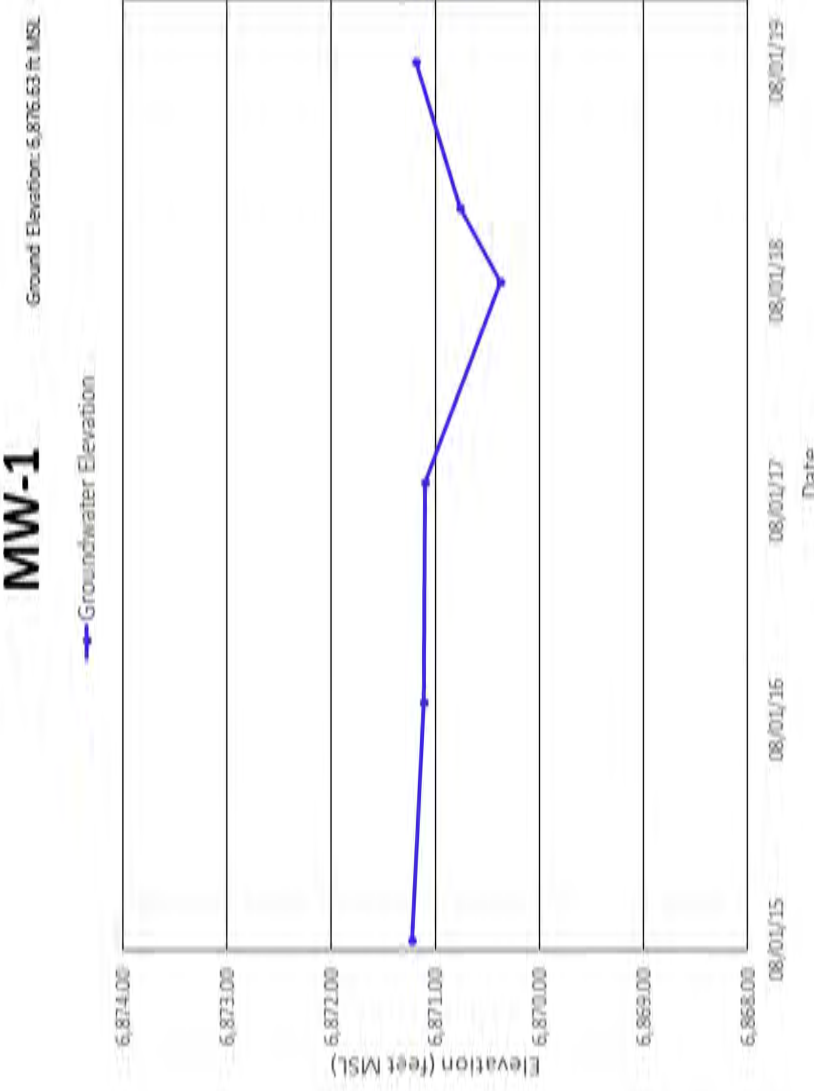
MKTF-48



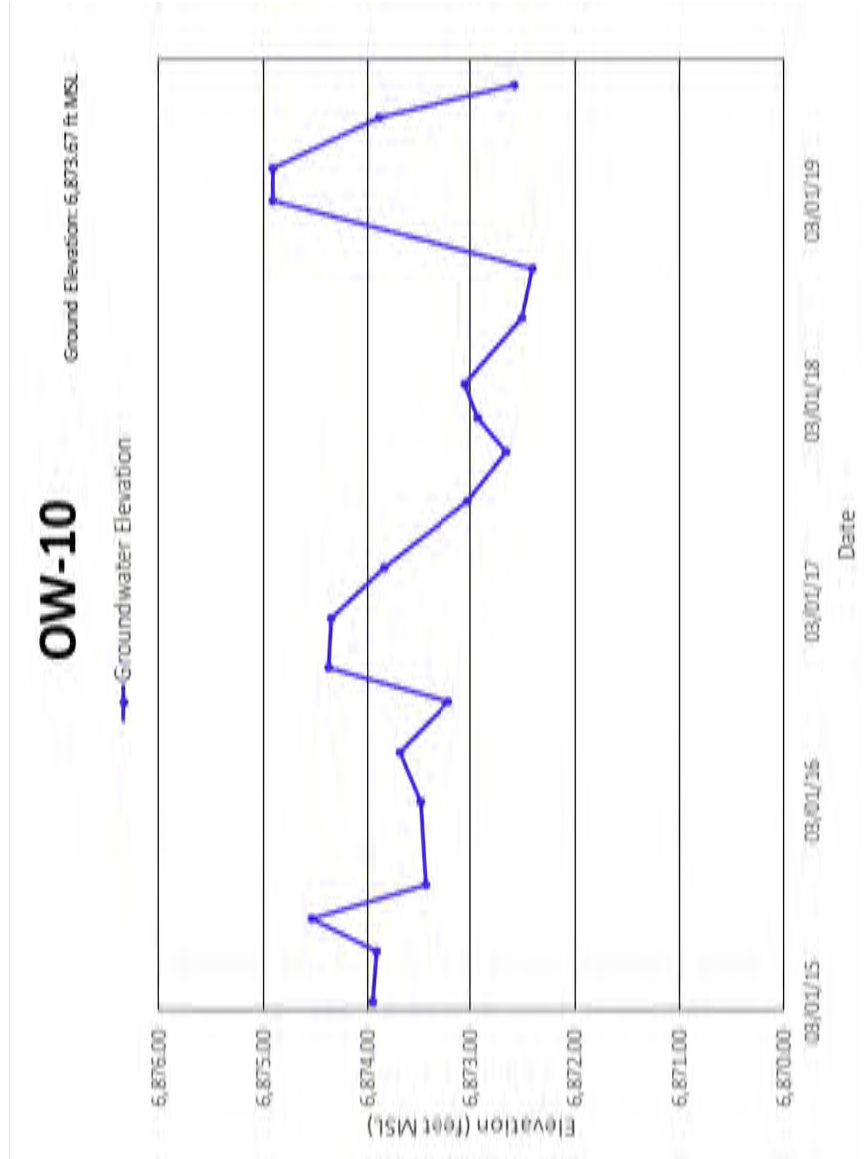
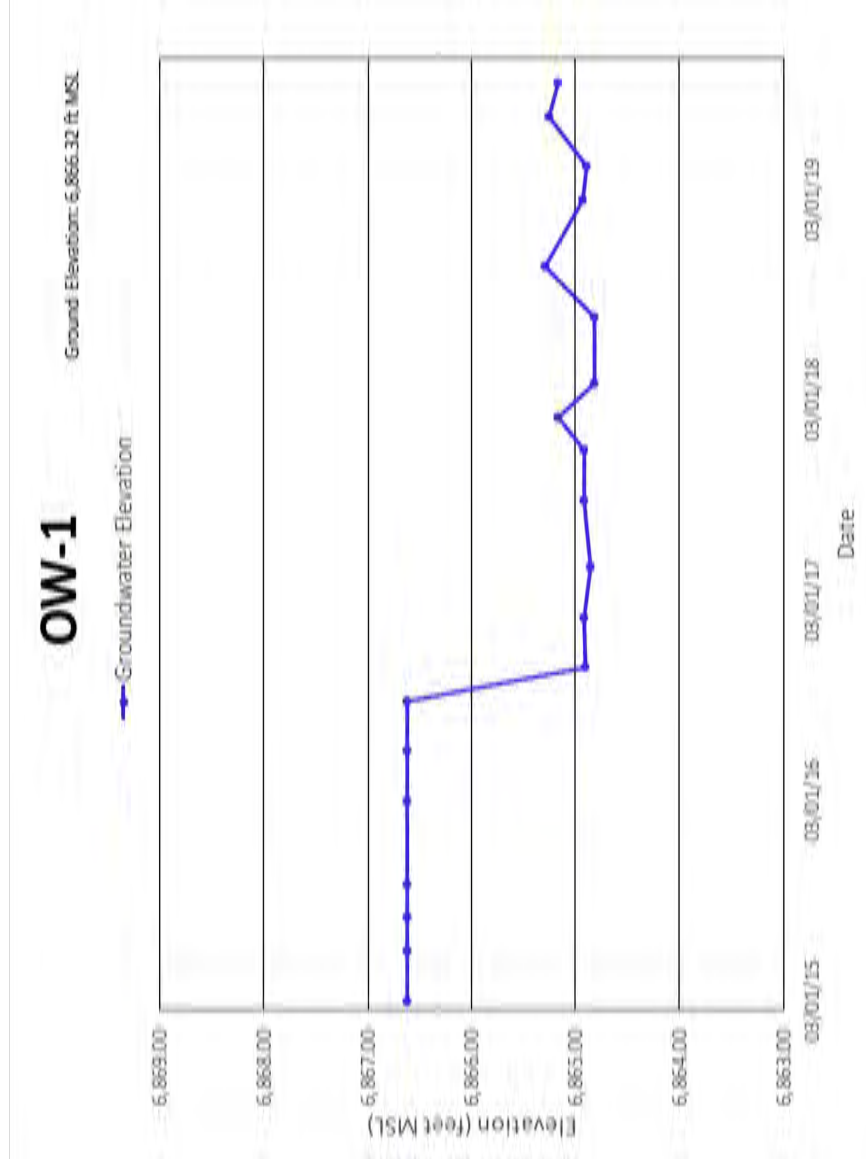
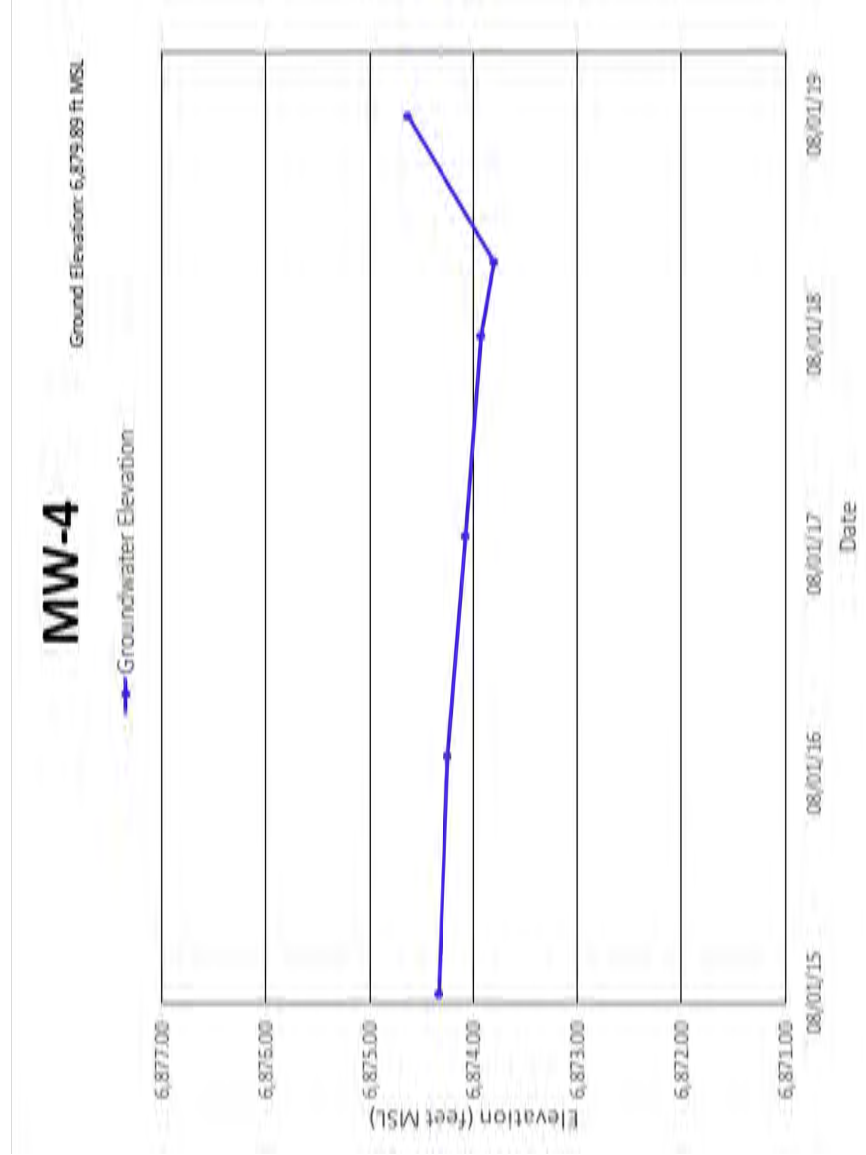
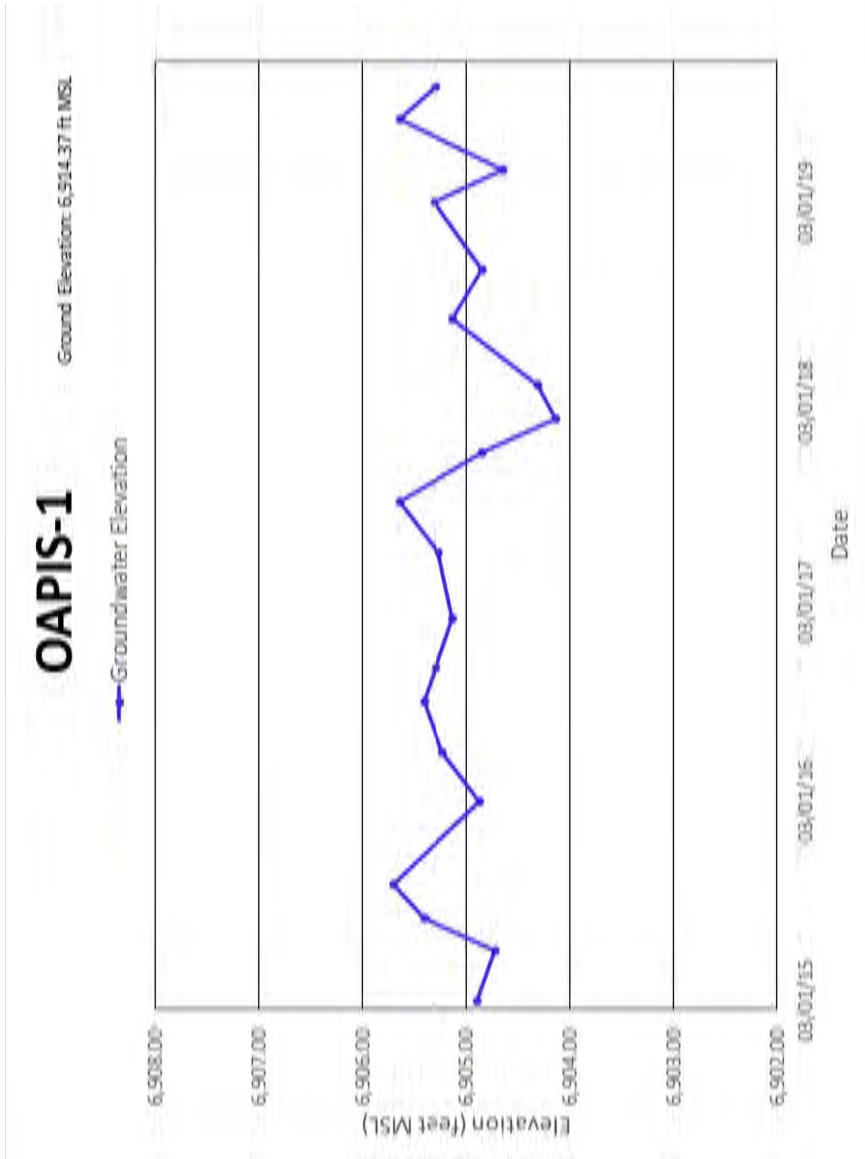
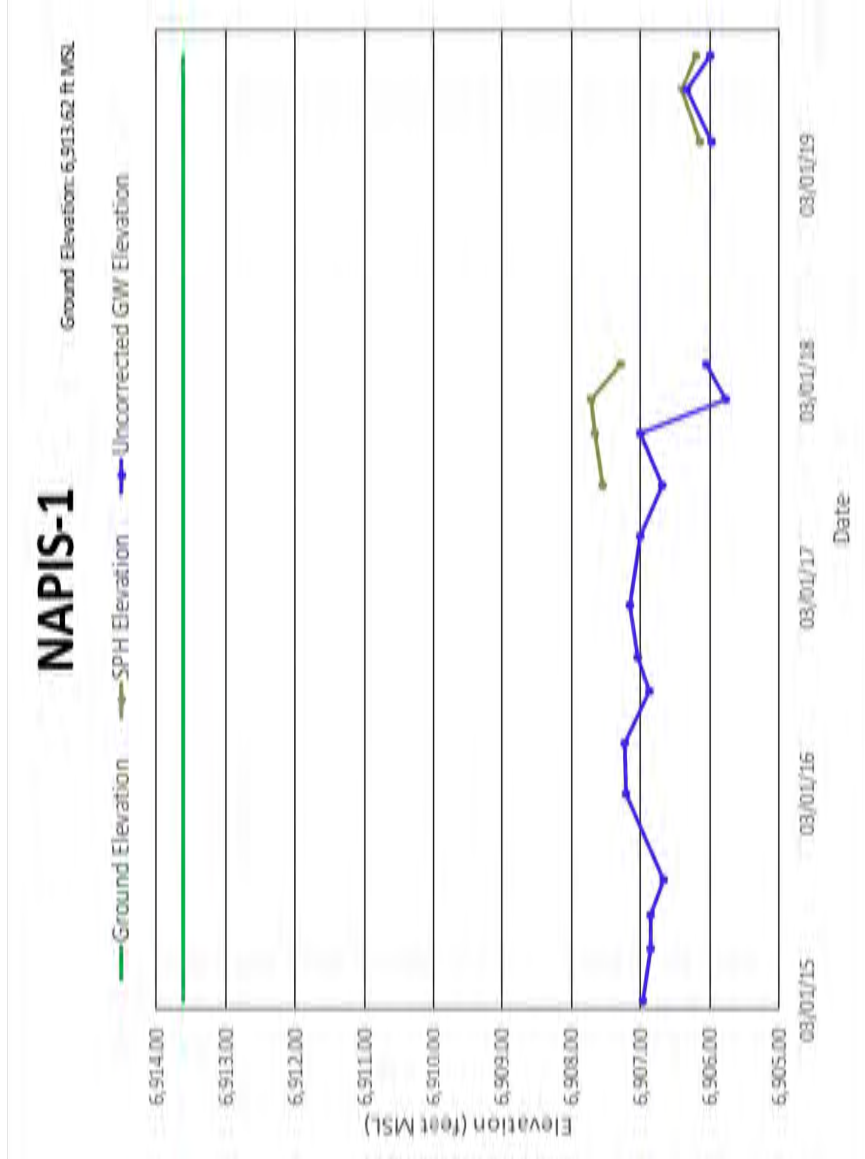
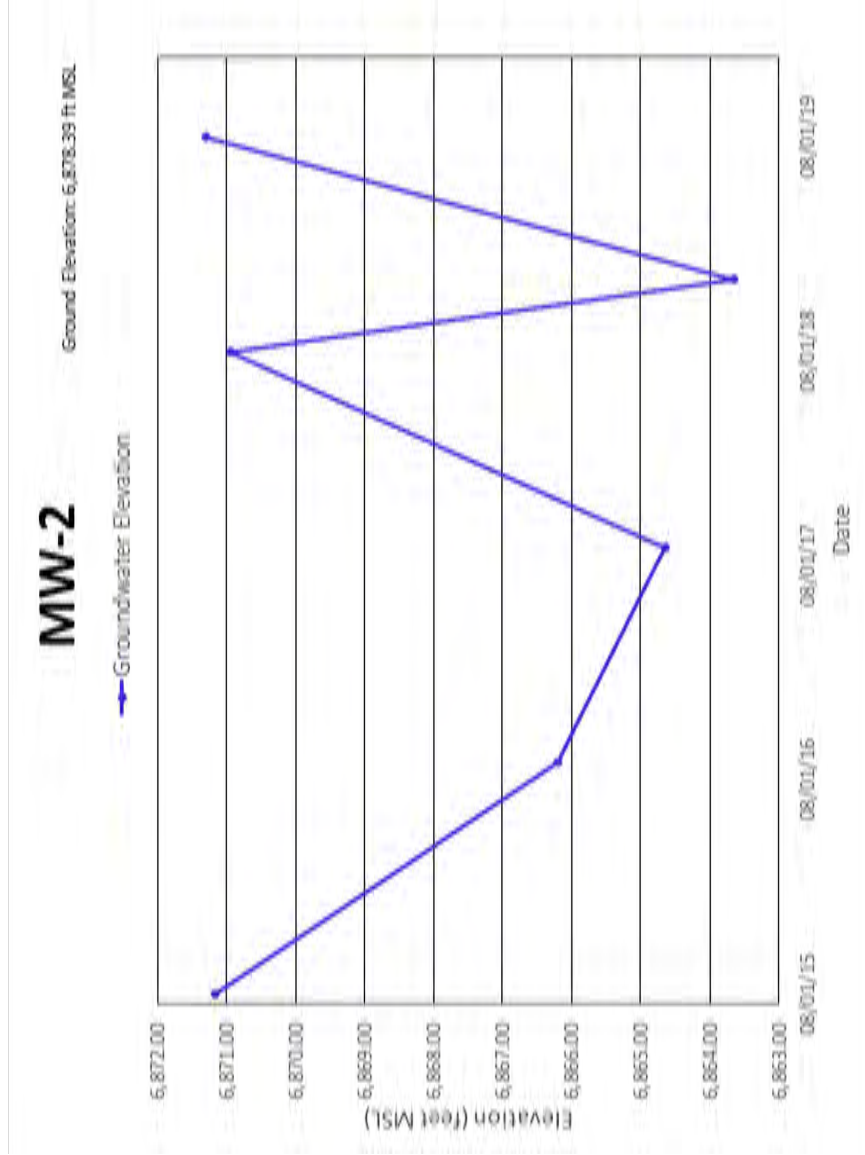
BW-5C



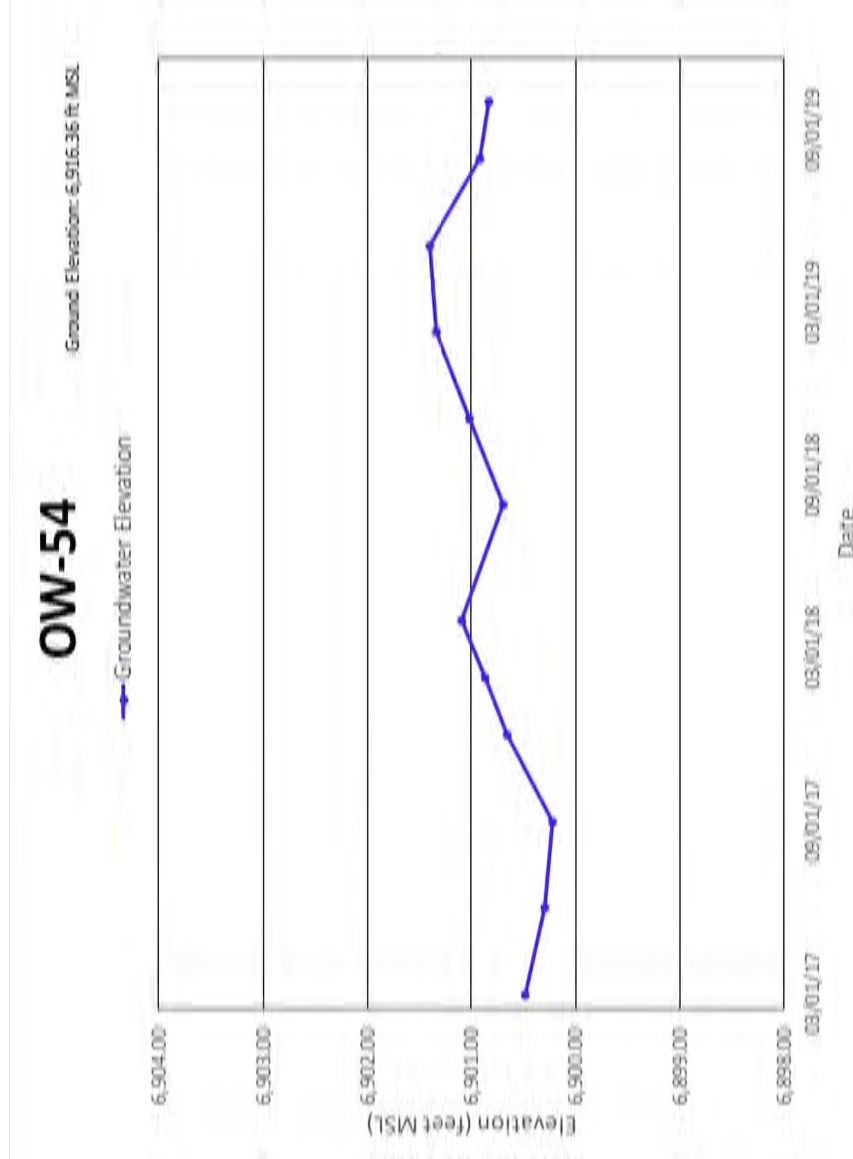
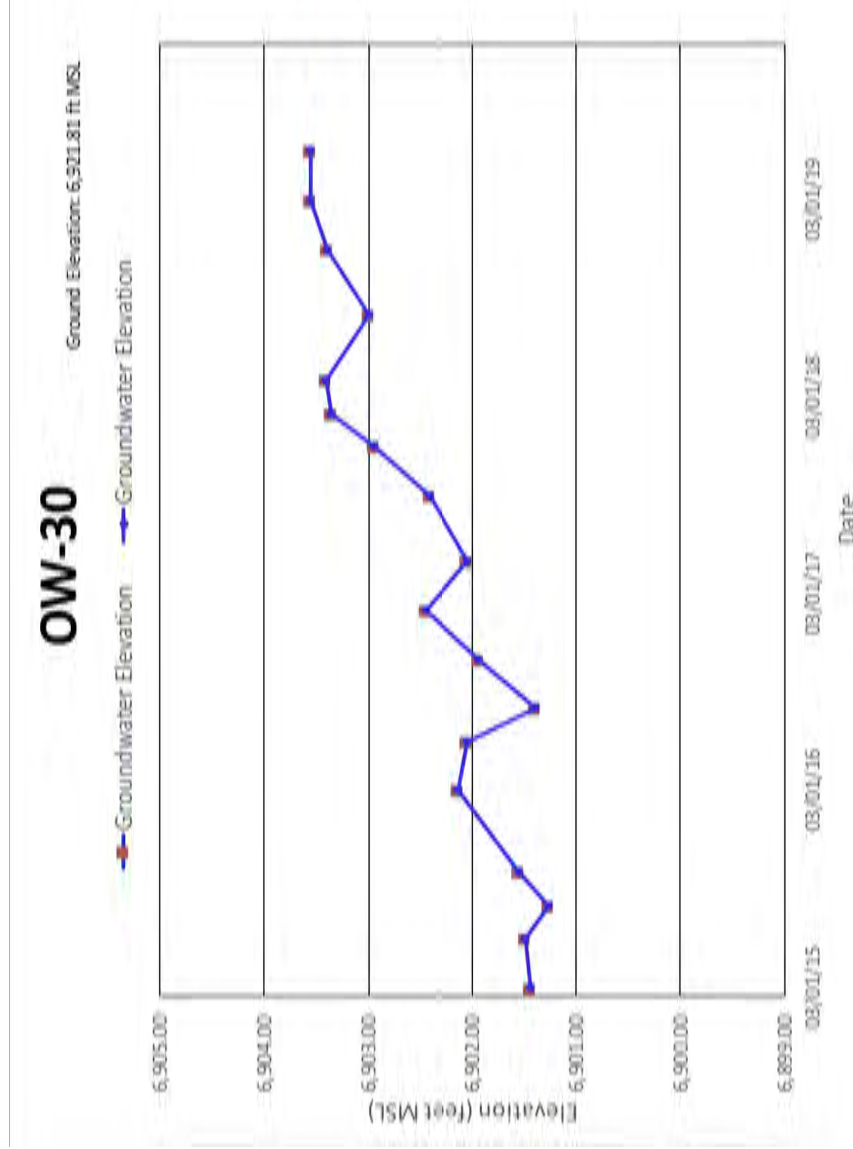
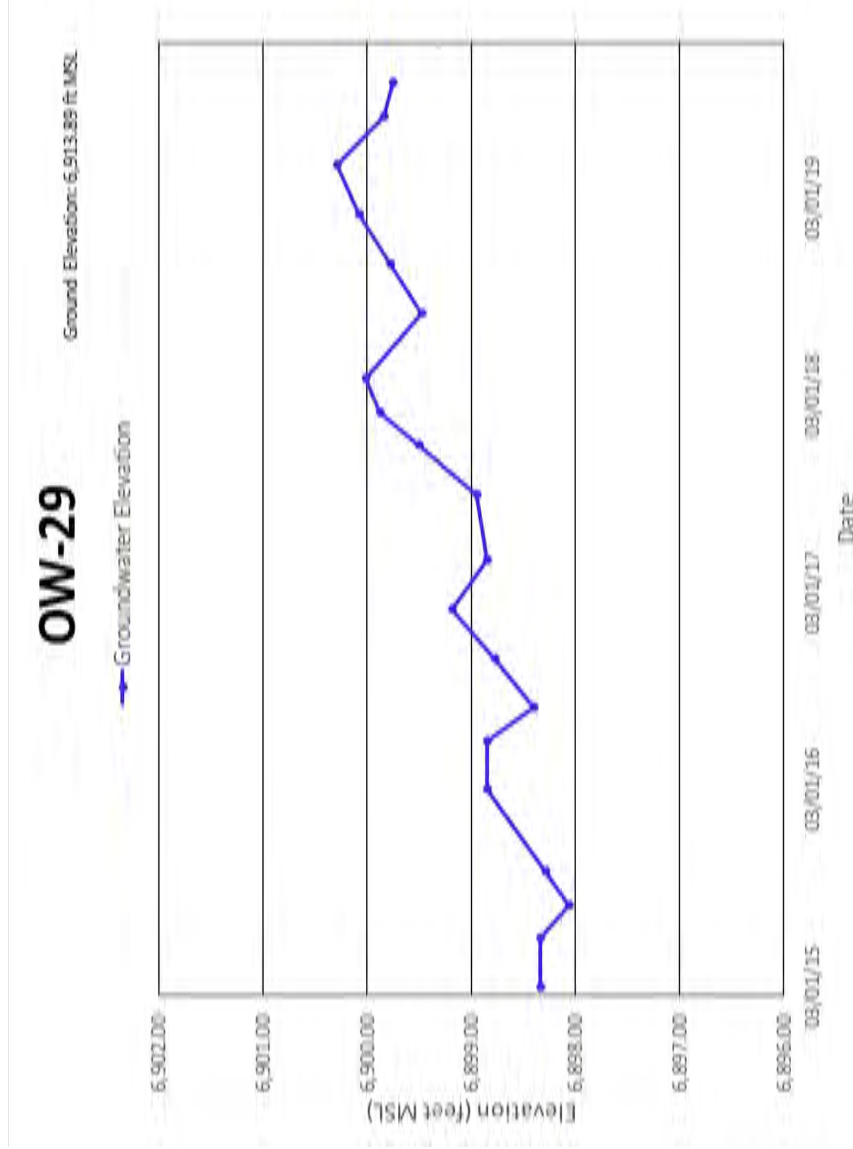
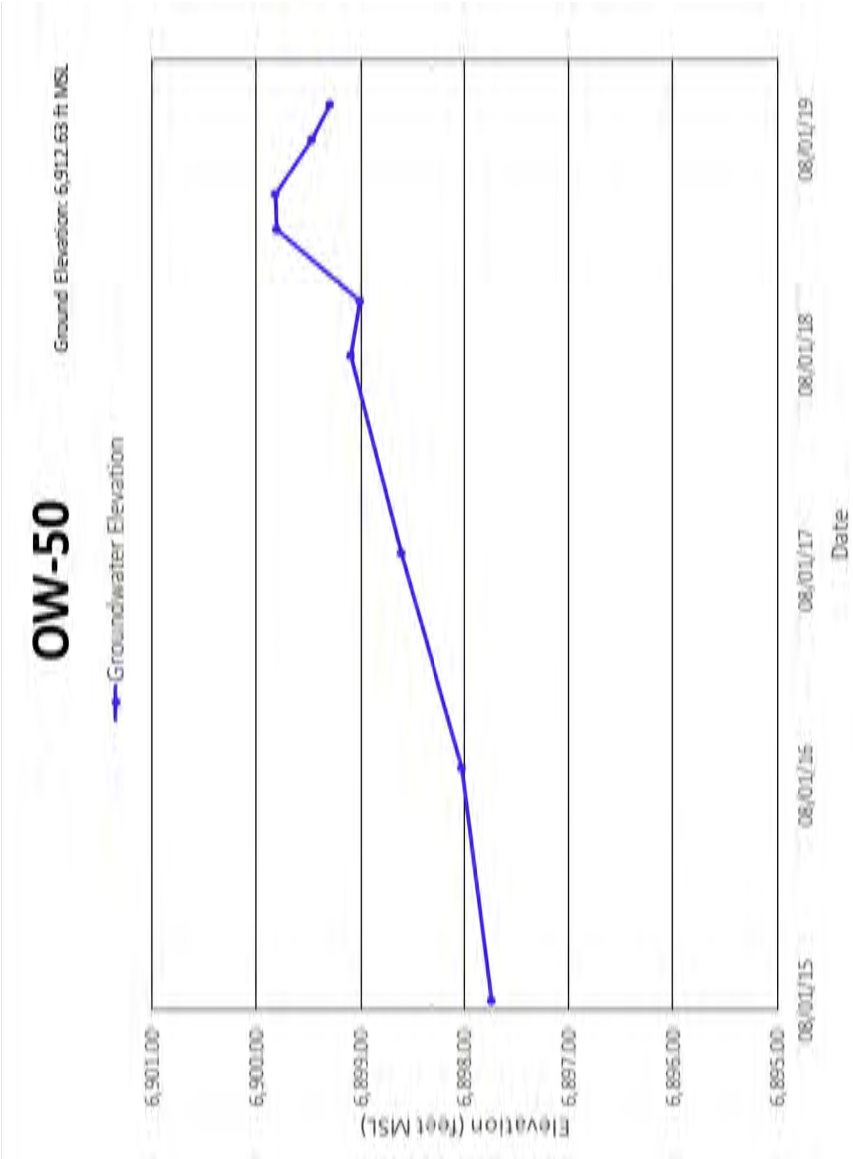
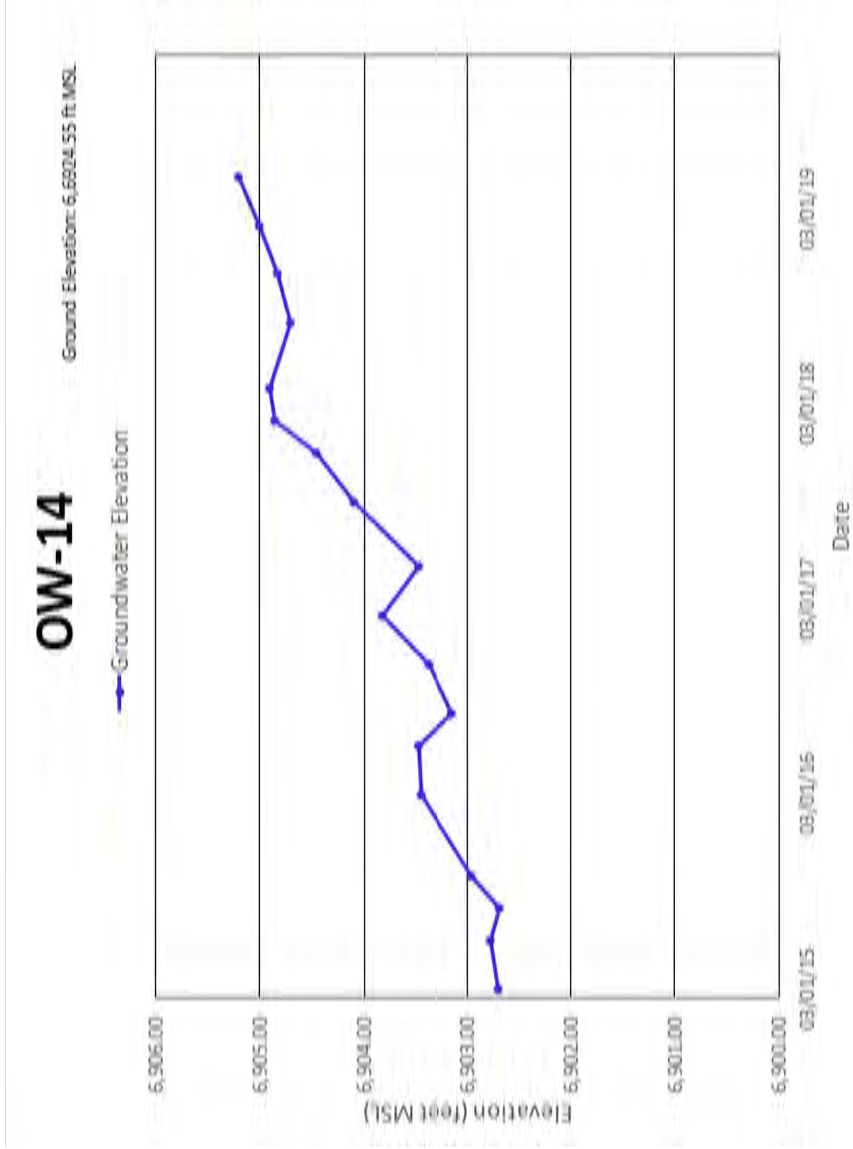
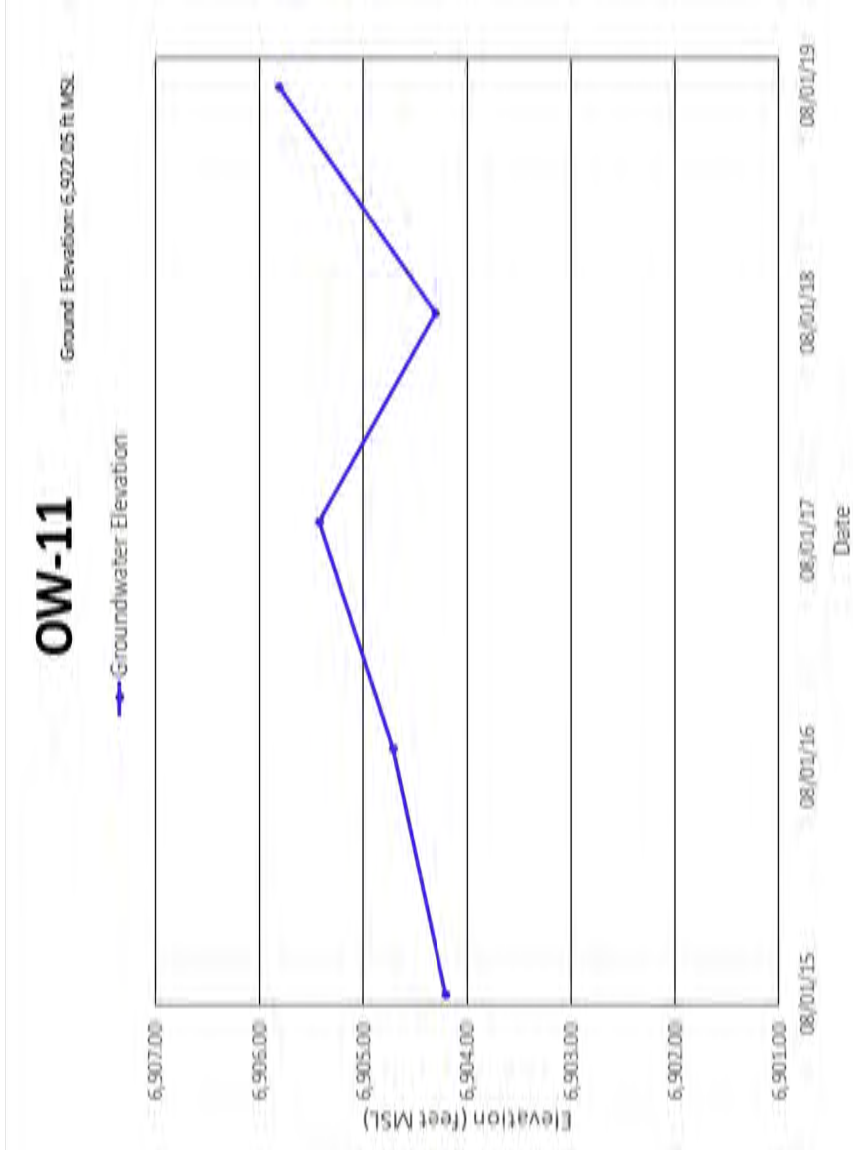
MW-1











**FIGURE 11I**

## GROUNDWATER ELEVATIONS VS TIME - 2019

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**



**CORPORATION**  
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Laramie, Wyoming 82070  
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(P) 307/745.7474 (F) 307/745.7

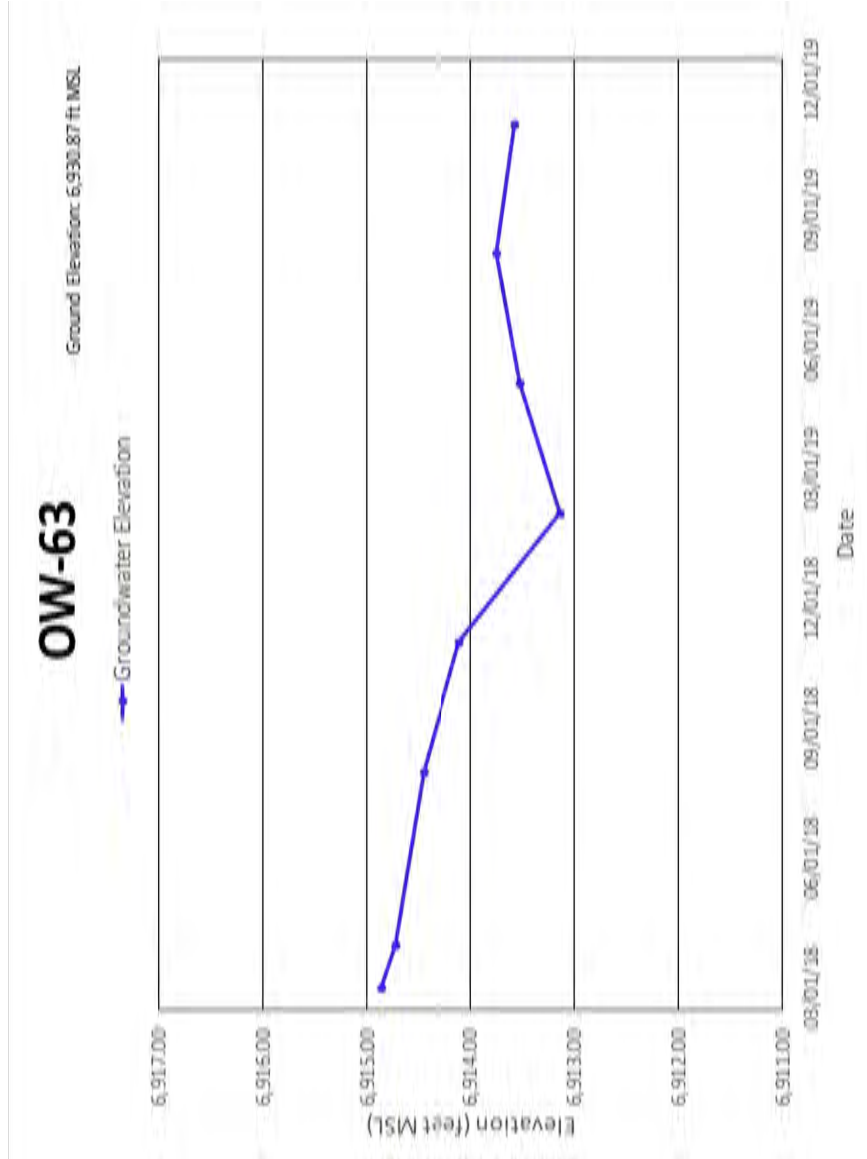
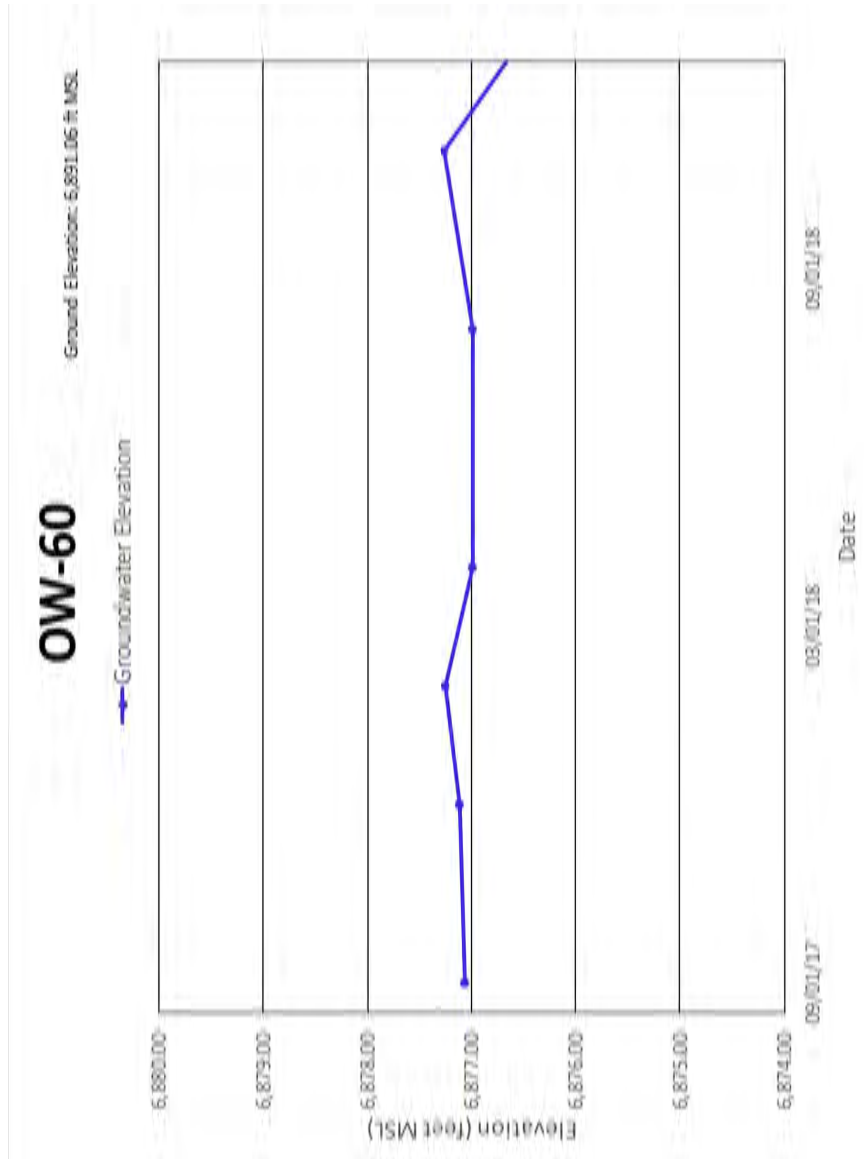
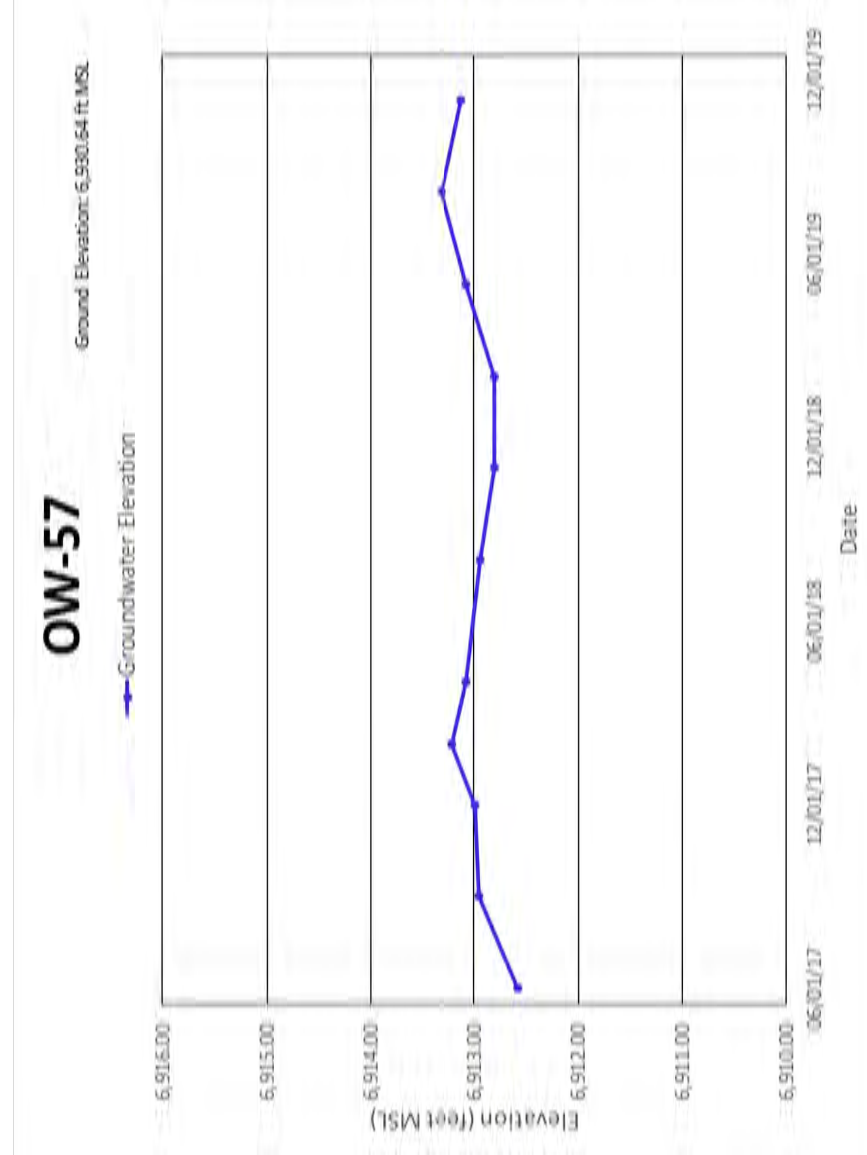
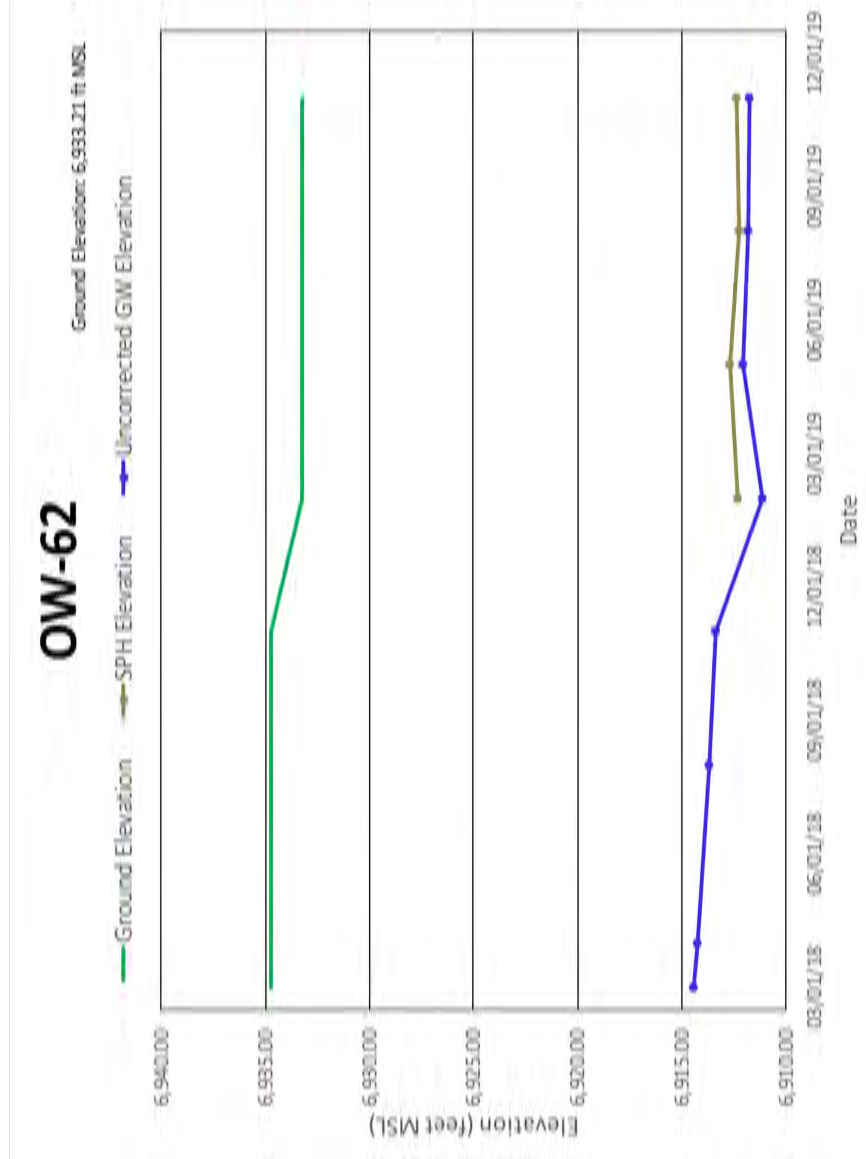
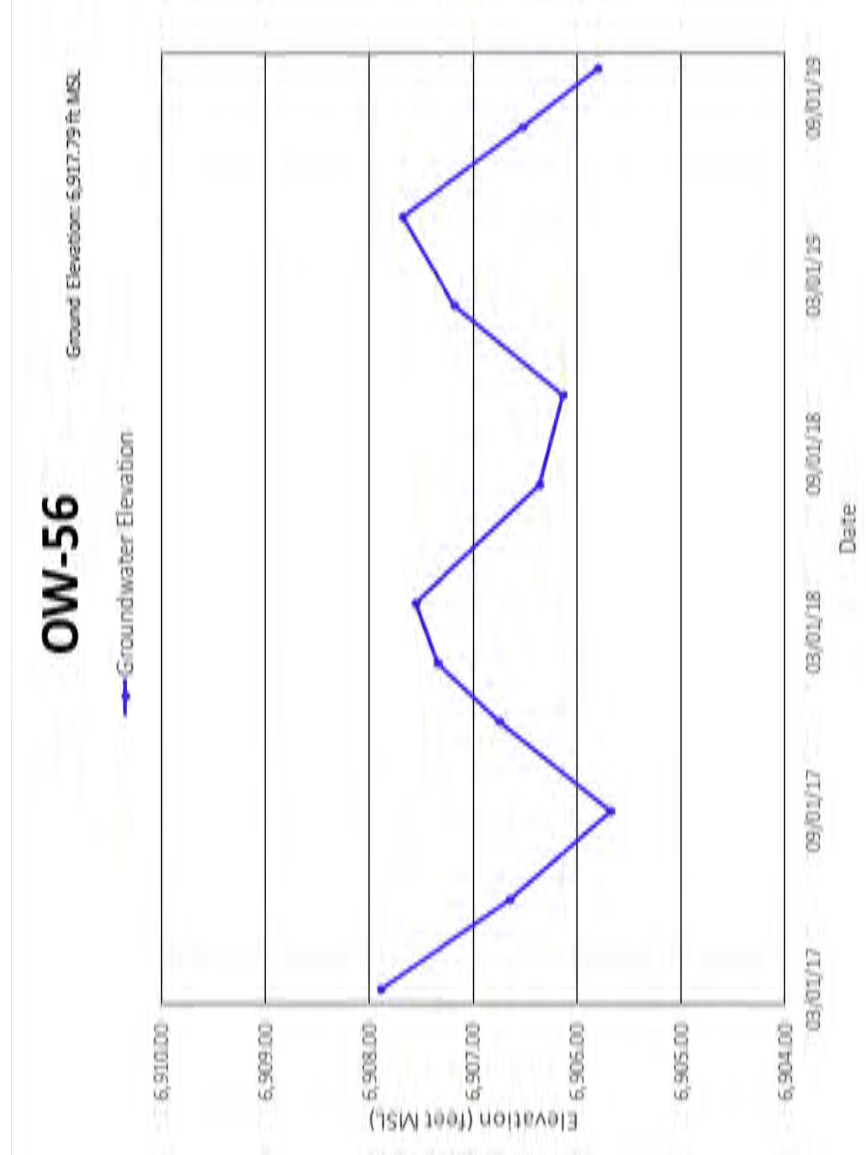
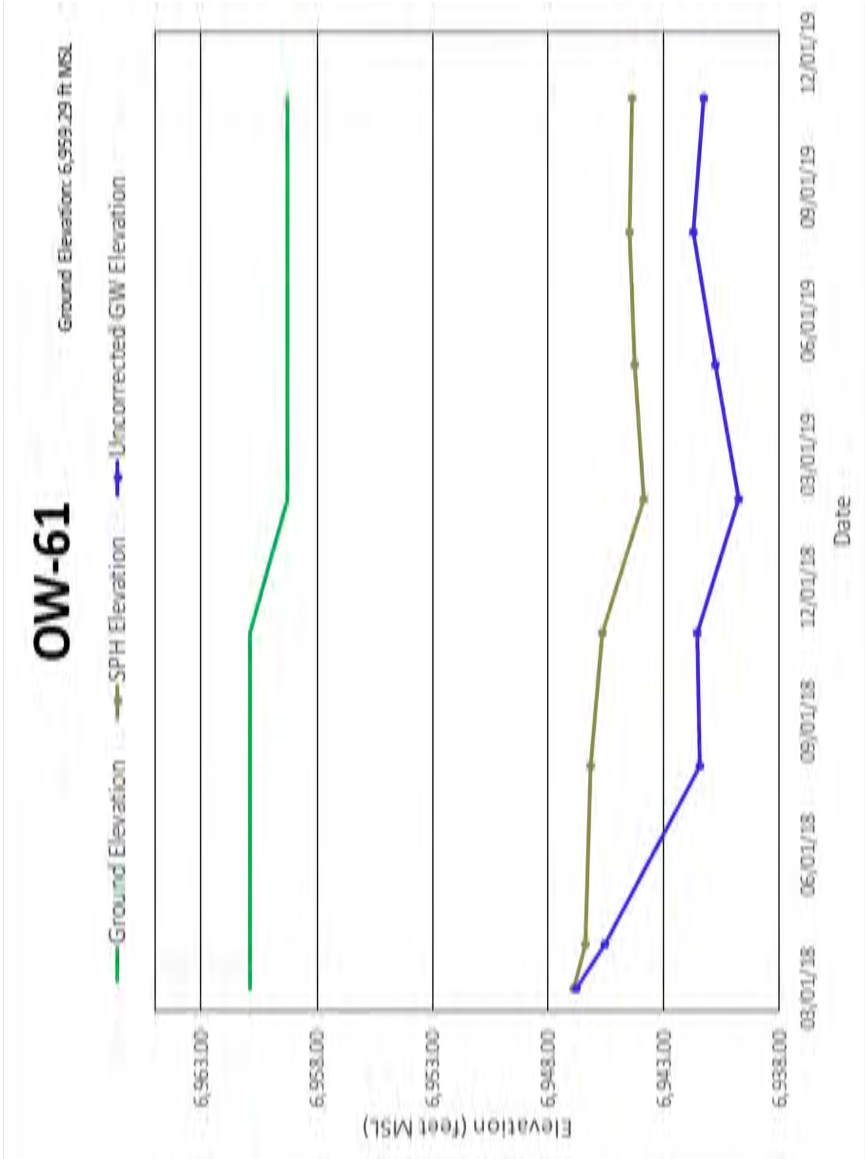
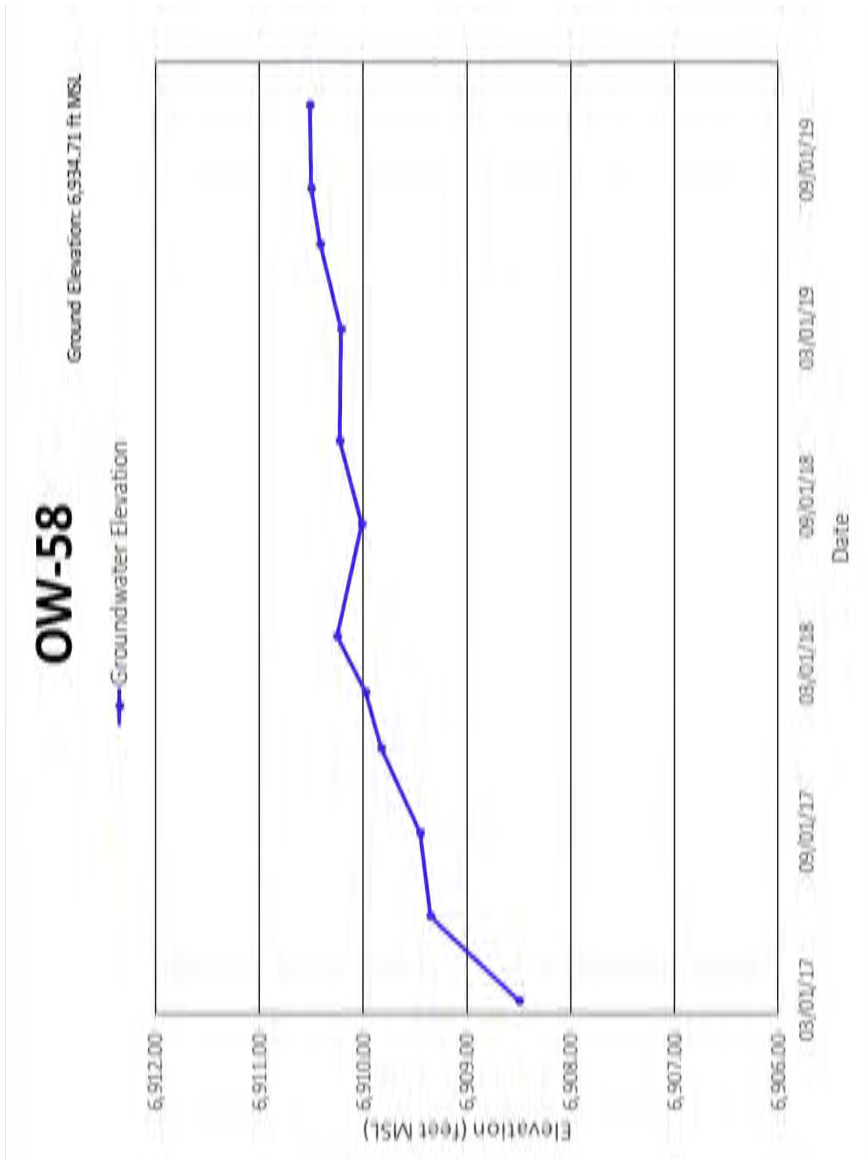
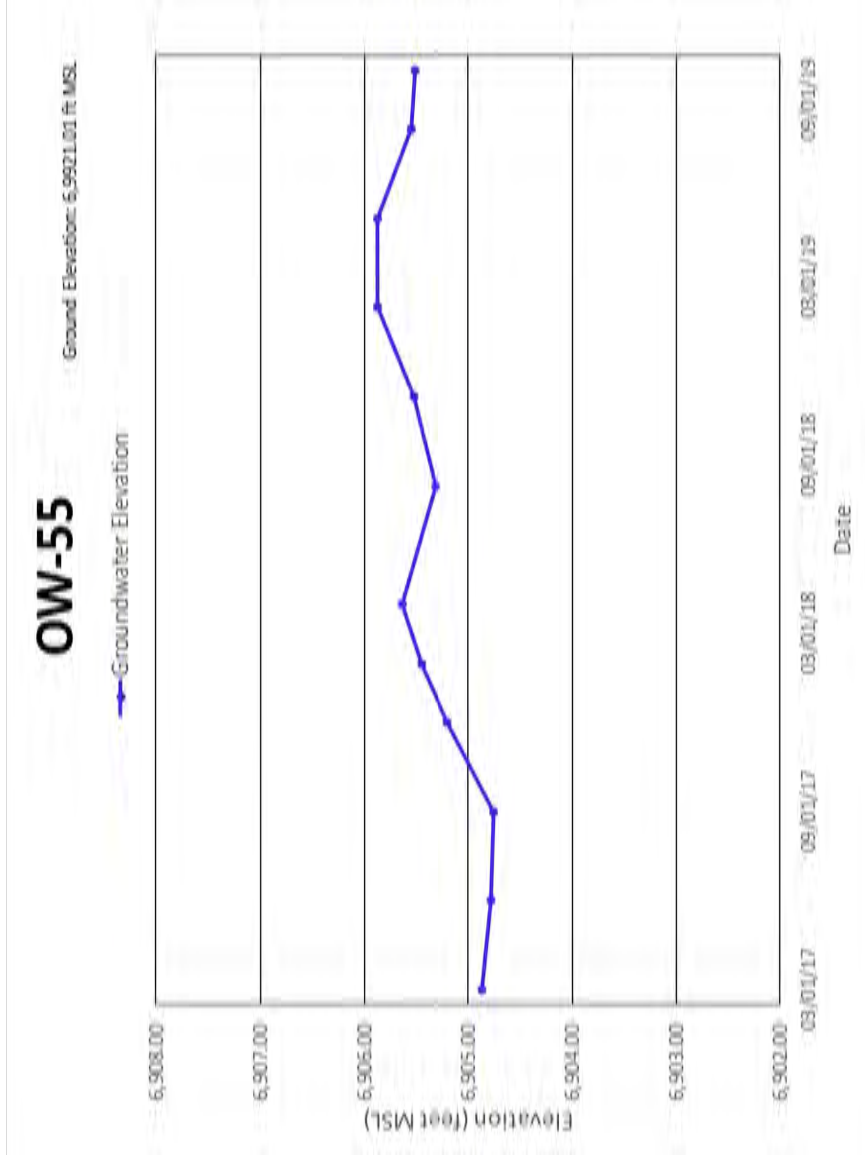
Drawn By: REP	Checked By: BM
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Scale: NONE

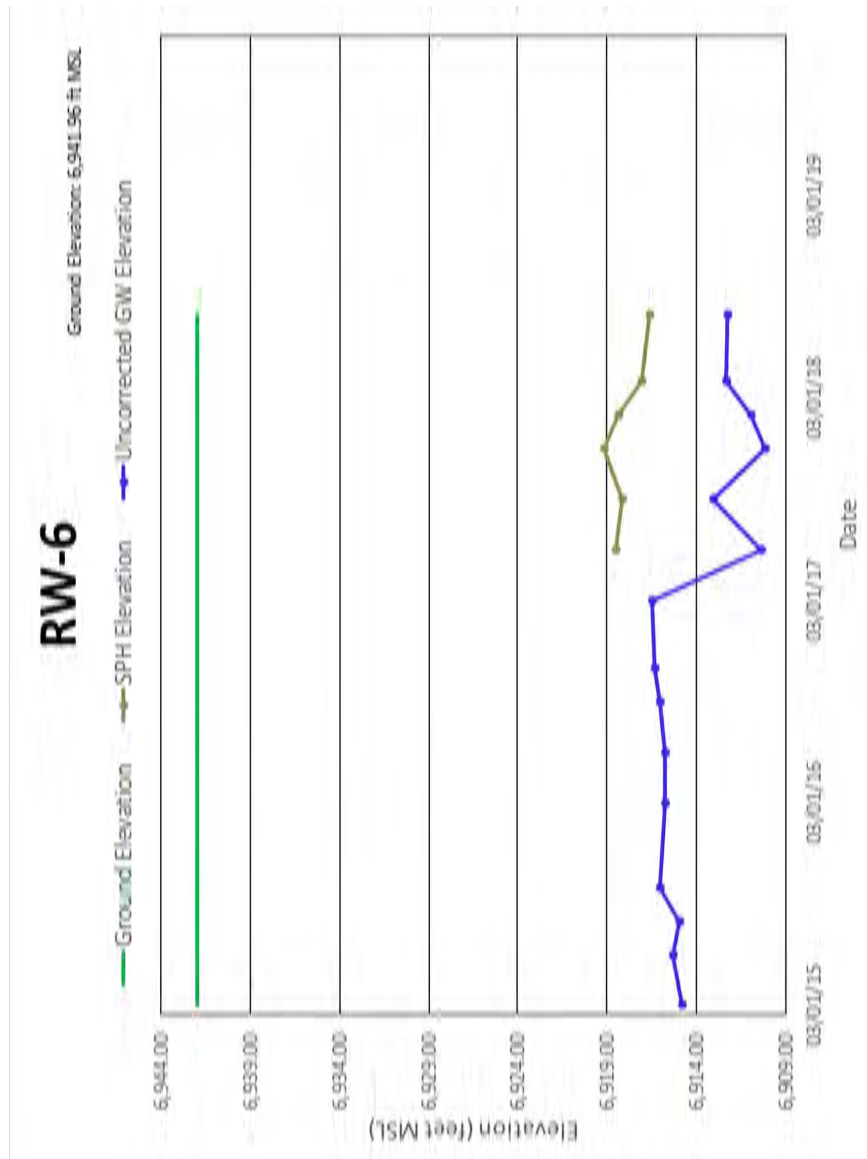
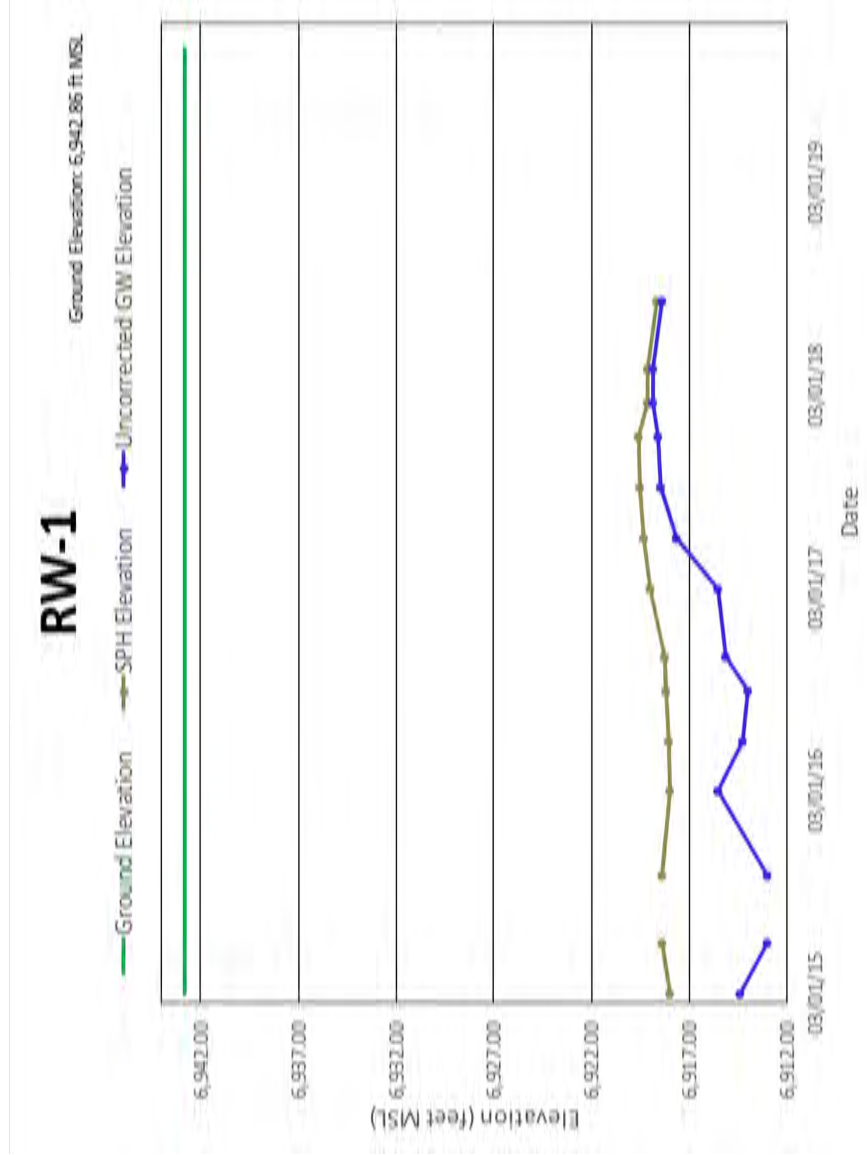
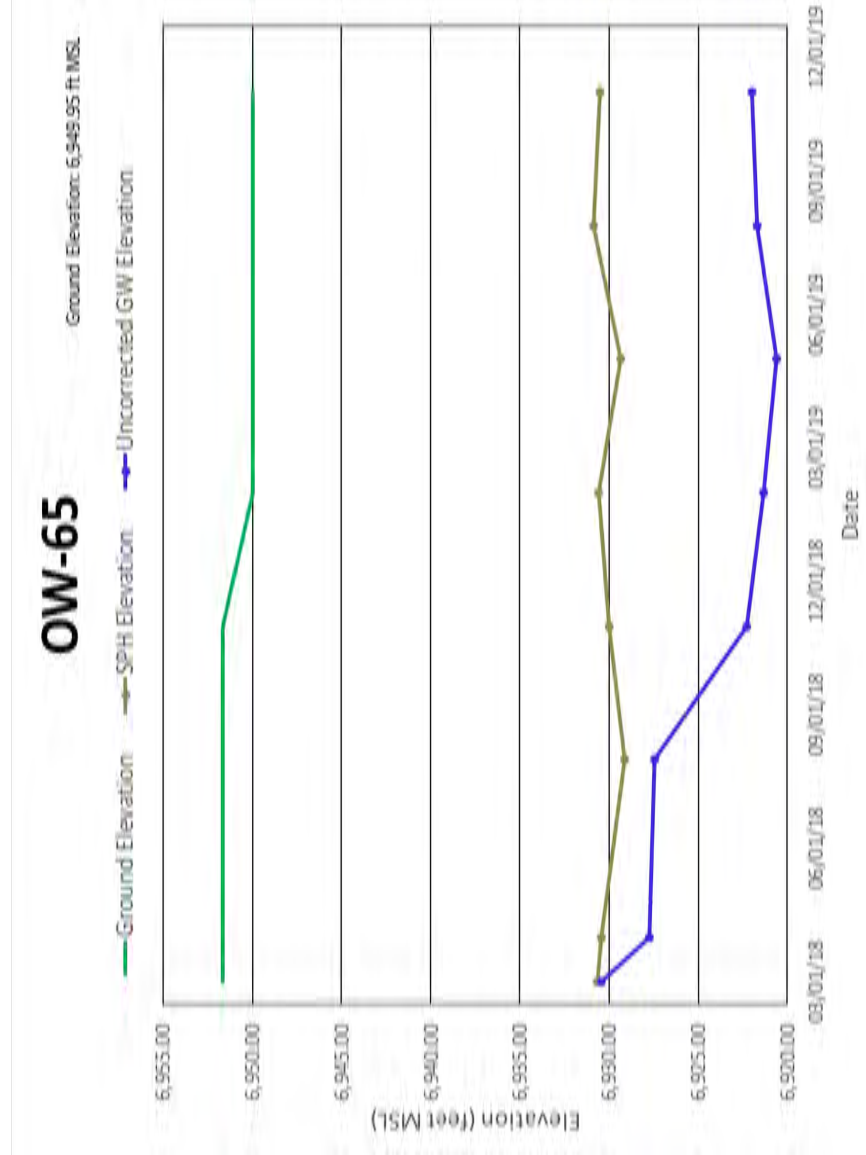
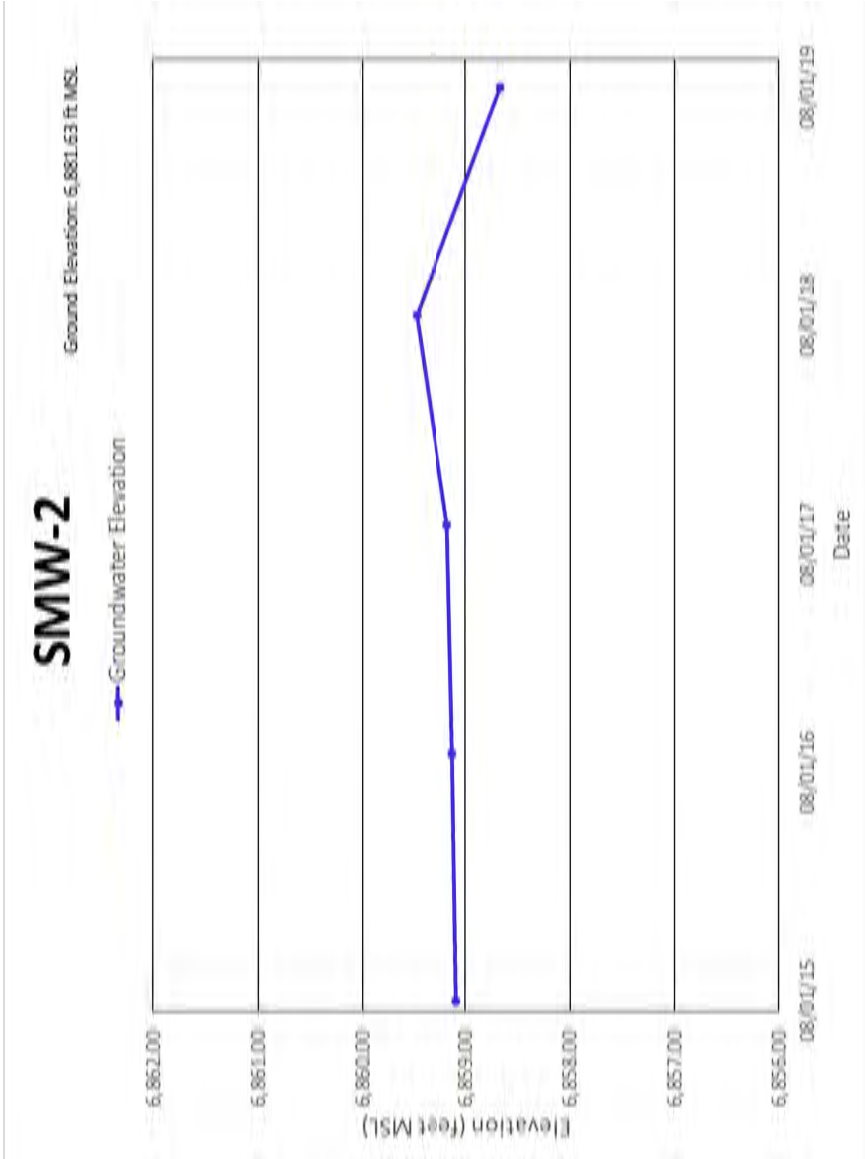
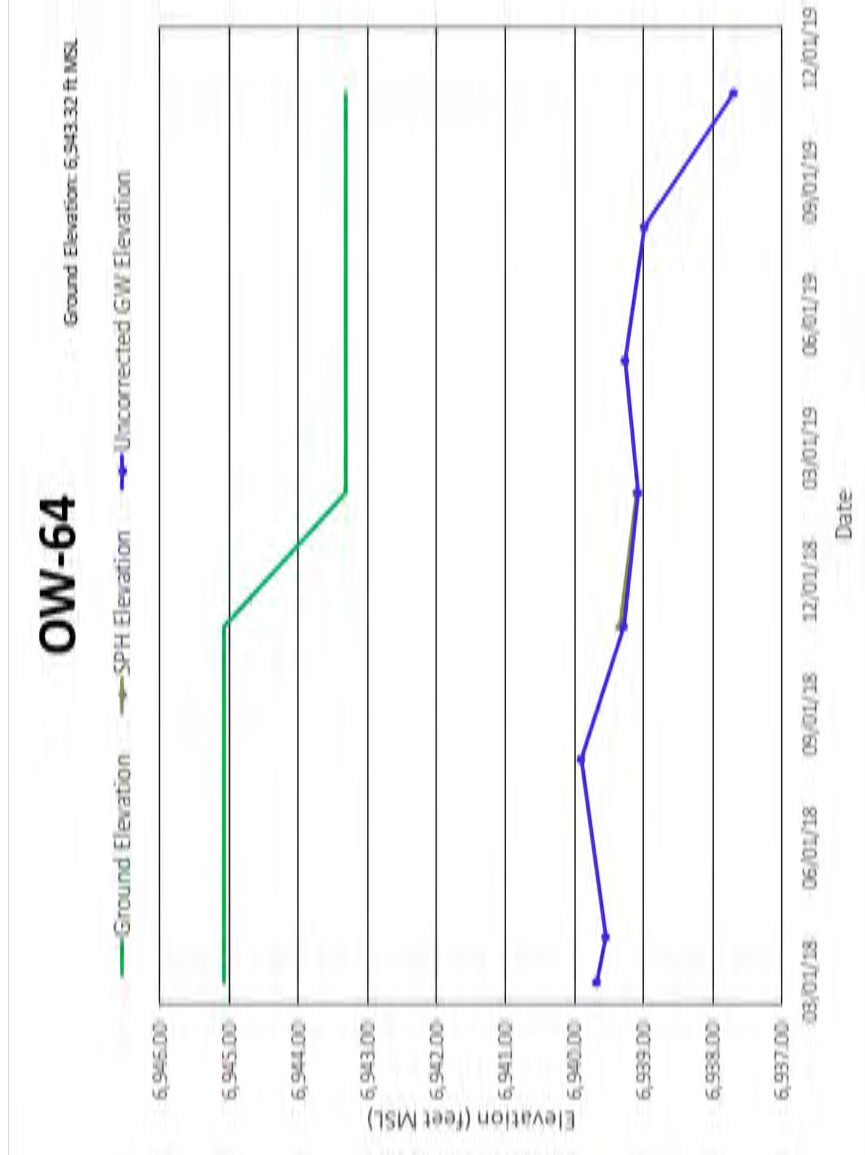
Date: 9/15/2020

File: 697-GWMON-2019-FIGS-11A-11K





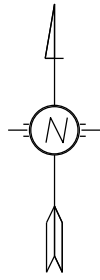








4601 Ripley  
El Paso, Texas  
79922  
915-584-1317



1"=500'

Project #: 06251762

**FIGURE 12**  
**ALLUVIAL/FLUVIAL UPPER SAND WATER 2019**  
**MARATHON - GALLUP REFINERY**

Marathon - Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301  
Date: September 10, 2019





**1** **SPH THICKNESS RESULTS**  
SCALE: 1" = 100'

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

## EXPLANATION

## CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION

SPH MONITORING WELL AND DESIGNATION

SINGLE-PHASE HYDROCARBON  
LINE OF EQUAL THICKNESS OF LNAPL, IN FEET  
(DASHED WHERE INFERRED, AUGUST, 2019)

⊕ MKTF-17  
4.88

 $\Phi_{\text{MKT}} = 0.7$  $\Phi_{\text{MKII}} = 0.7$   
5.74

SPT

LINE OF EQUAL THICKNESS OF LNAPL, IN FEET  
(DASHED WHERE INFERRED, AUGUST 2019)

**FIGURE 13**

SPH THICKNESS  
AUGUST 2019

**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**



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

Drawn By: REP	Checked By: CF	Scale: 1" = 100'	Date: 9/4/20	File: 697-THK-202008
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- LEGEND
- CLAY
  - SANDY CLAY OR CLAYEY SAND
  - SAND
  - SILT
  - SHALE (CHINLE FORMATION)
  - SANDSTONE (CHINLE FORMATION)
  - PROFILE LINE
  - WATER BEARING ZONE
  - SCREENED INTERVAL

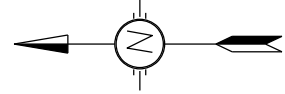
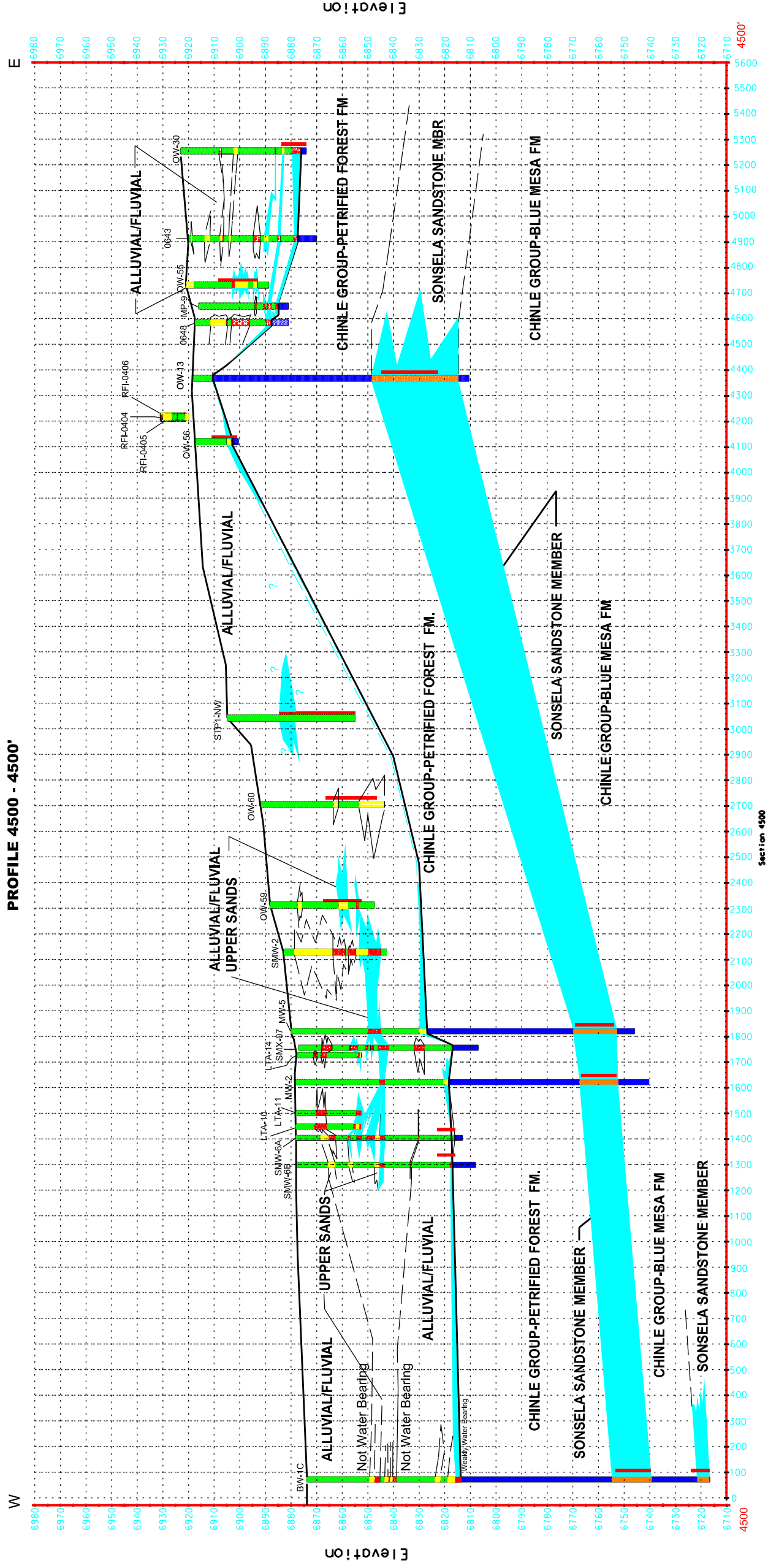


FIGURE 14  
TYPICAL WEST - EAST GEOLOGIC PROFILE 2019  
MARATHON - GALLUP REFINERY





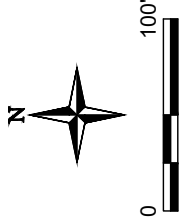
**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
3. NAPIS-3 NOT INCLUDED IN CONTOURING.

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

**EXPLANATION**

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH



**FIGURE 15A**

**GROUP B BENZENE RESULTS (AUGUST 2019)**

**MARATHON PETROLEUM CORP.  
GALLUP REFINERY  
GALLUP, NEW MEXICO**

Drawn By: REP

Checked By: CF

Scale: 1" = 100'

Date: 9/10/20

File: 697-GROUPB-BENZENE





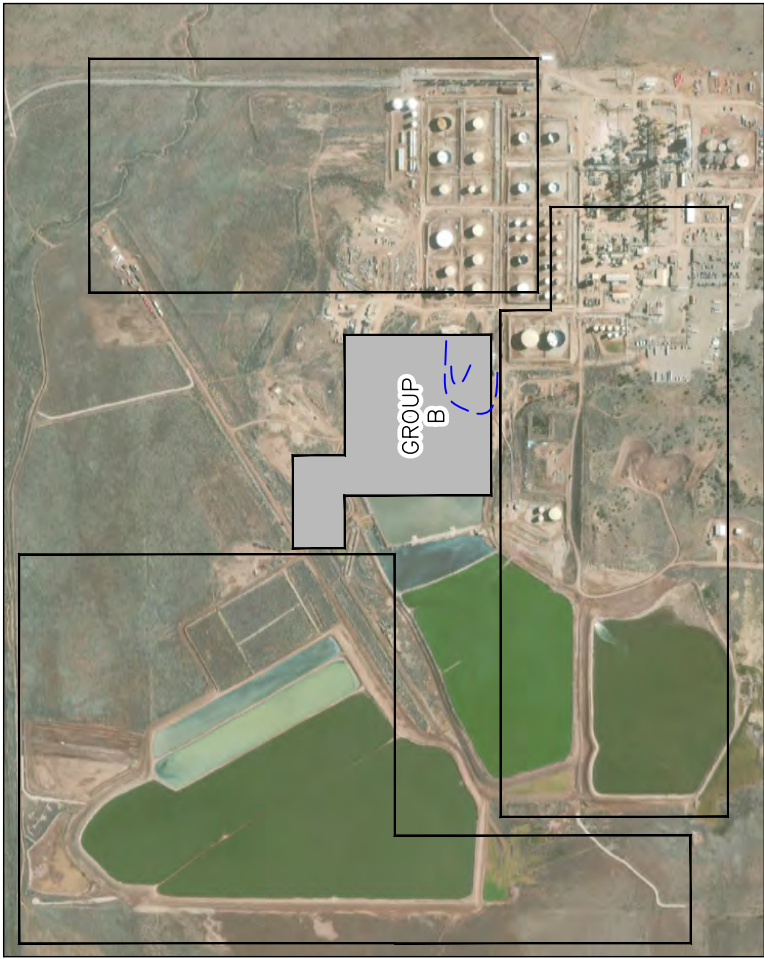
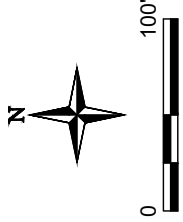
**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
3. NAPIS-3 NOT INCLUDED IN CONTOURING.

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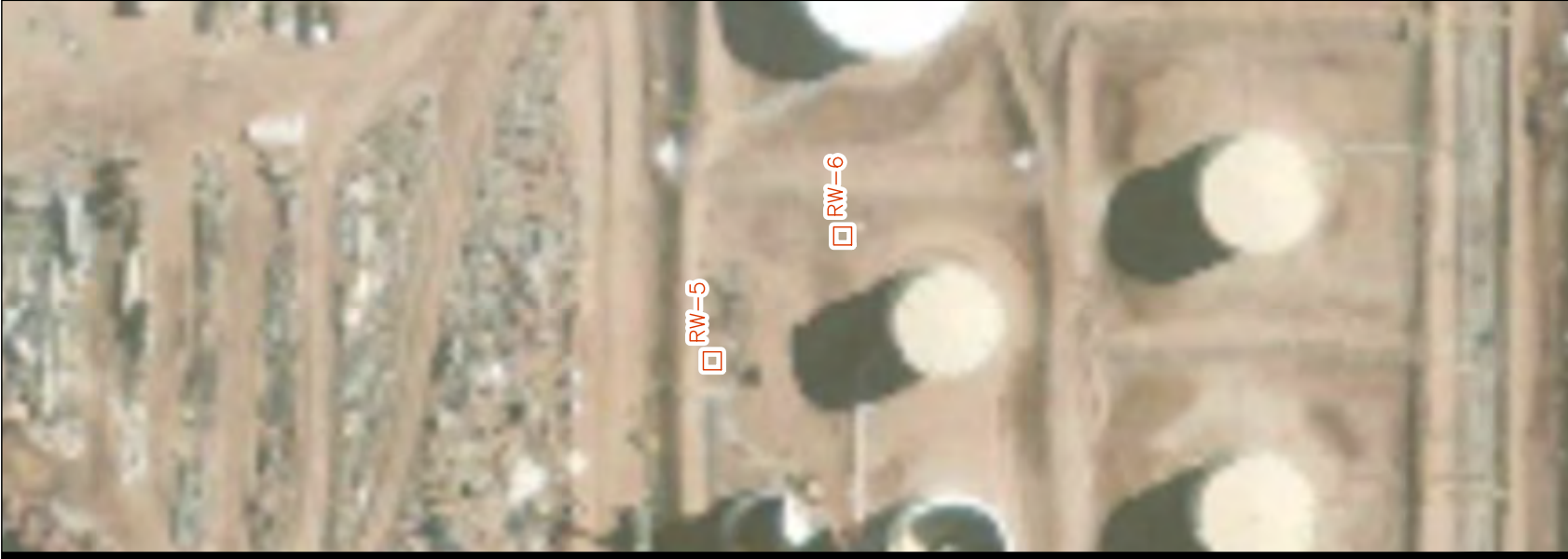
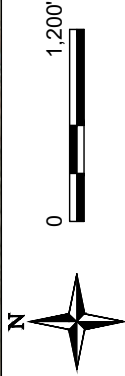
**EXPLANATION**

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH



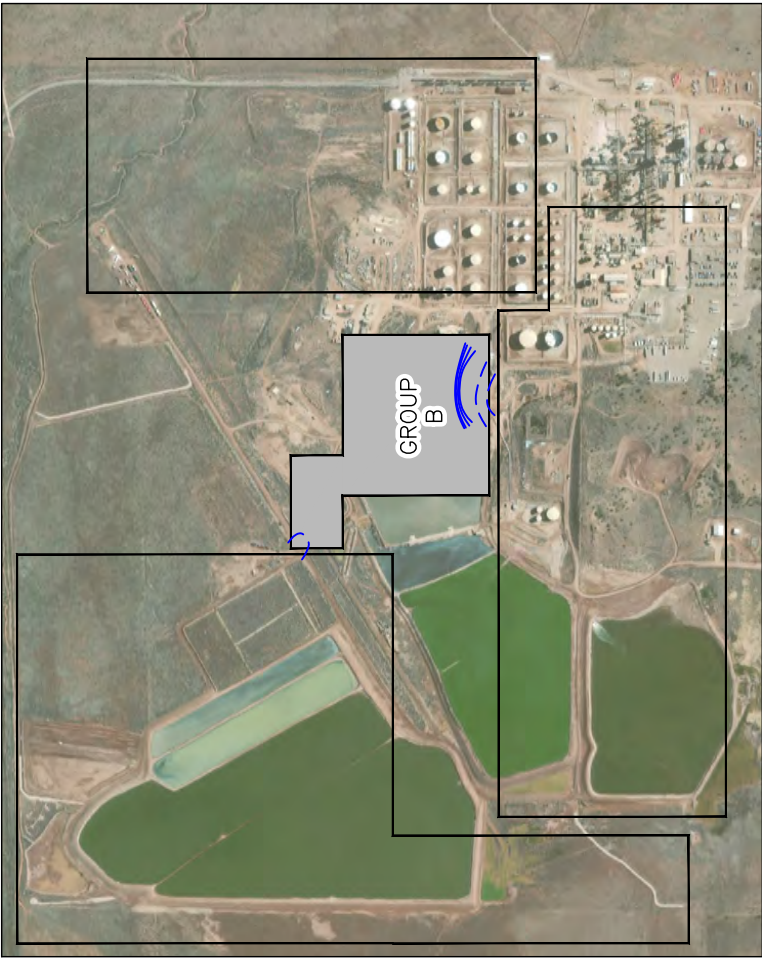
**2 SITE MAP**  
SCALE: 1" = 1,200'



**FIGURE 15B**

GROUP B ETHYLBENZENE RESULTS (AUGUST 2019)			
MARATHON PETROLEUM CORP. GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 100'	Date: 9/10/20
Trihydro Corporation 1252 Commerce Drive Laramie, Wyoming 82070 (307) 745-7424 (F) 307-745-7723		File: 697-GROUPB-ETHYLBENZENE	





2 SITE MAP  
SCALE: 1" = 1,200'

**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
3. NAPI-3 NOT INCLUDED IN CONTOURING.

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**EXPLANATION**

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH

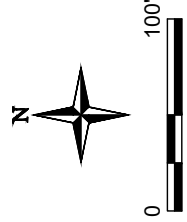


FIGURE 15C

GROUP B MTBE RESULTS (AUGUST 2019)

MARATHON PETROLEUM CORP.  
GALLUP REFINERY  
GALLUP, NEW MEXICO

Scale: 1" = 100'

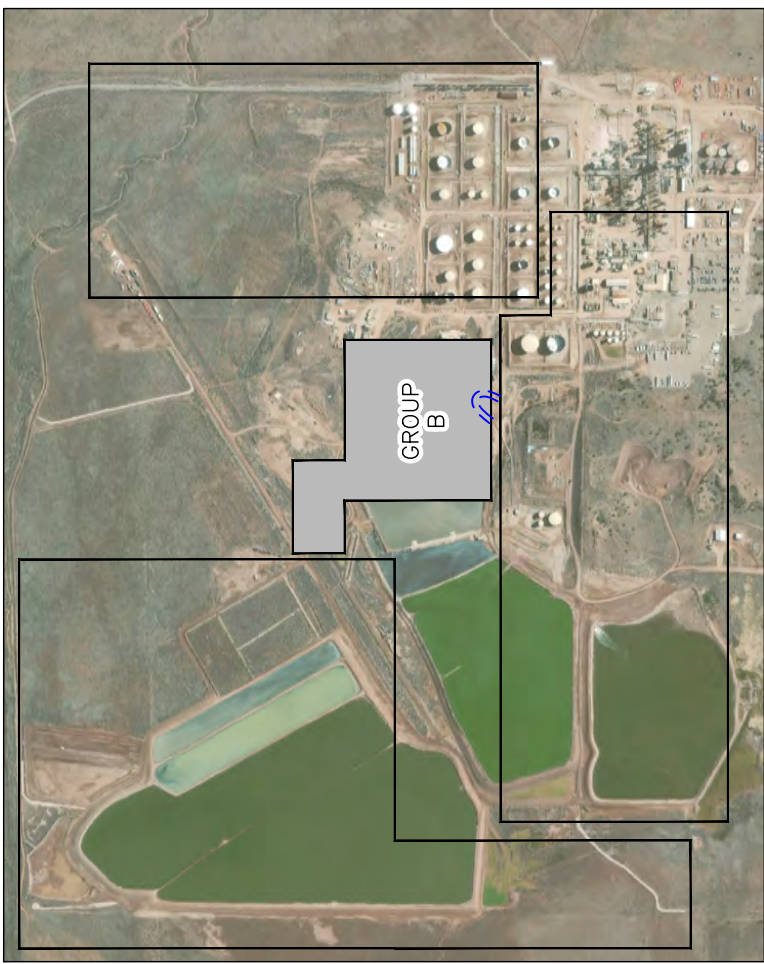
Date: 9/10/20

Drawn By: REP

Checked By: CF

File: 697-GROUP-B-MTBE





2 SITE MAP  
SCALE: 1" = 1,200'

**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
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**EXPLANATION**

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH

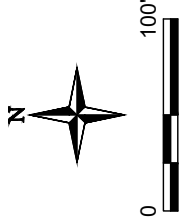


FIGURE 15D

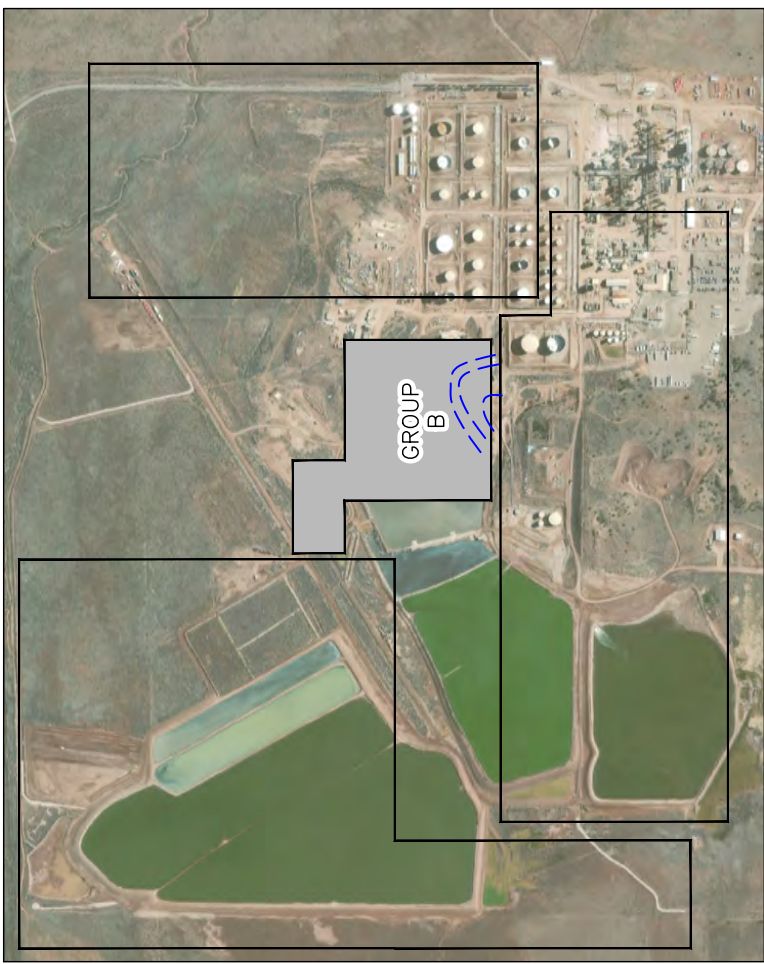


**tribhydro**  
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Laramie, Wyoming 82070  
(307) 745-7424 (F) 307-745-7723

**GROUP B TOLUENE RESULTS (AUGUST 2019)**

**MARATHON PETROLEUM CORP.  
GALLUP REFINERY  
GALLUP, NEW MEXICO**





**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
3. NAPIS-3 NOT INCLUDED IN CONTOURING.

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#### EXPLANATION

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH

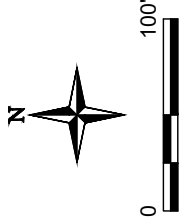
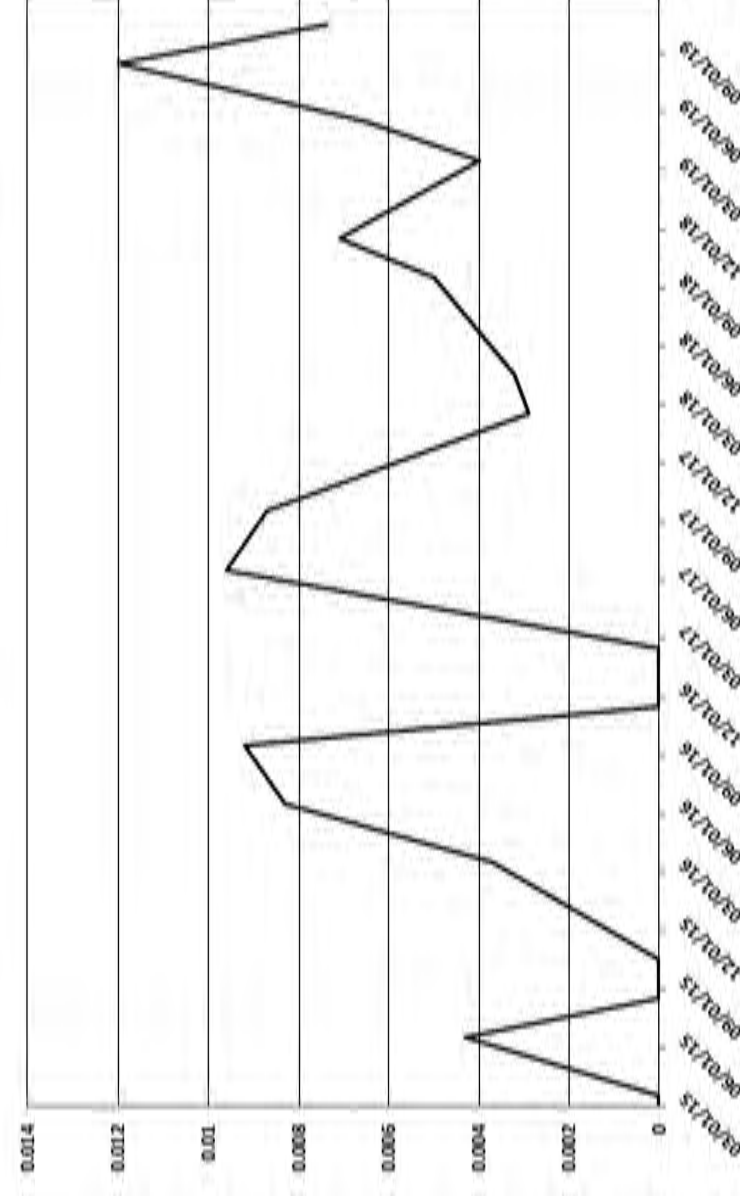
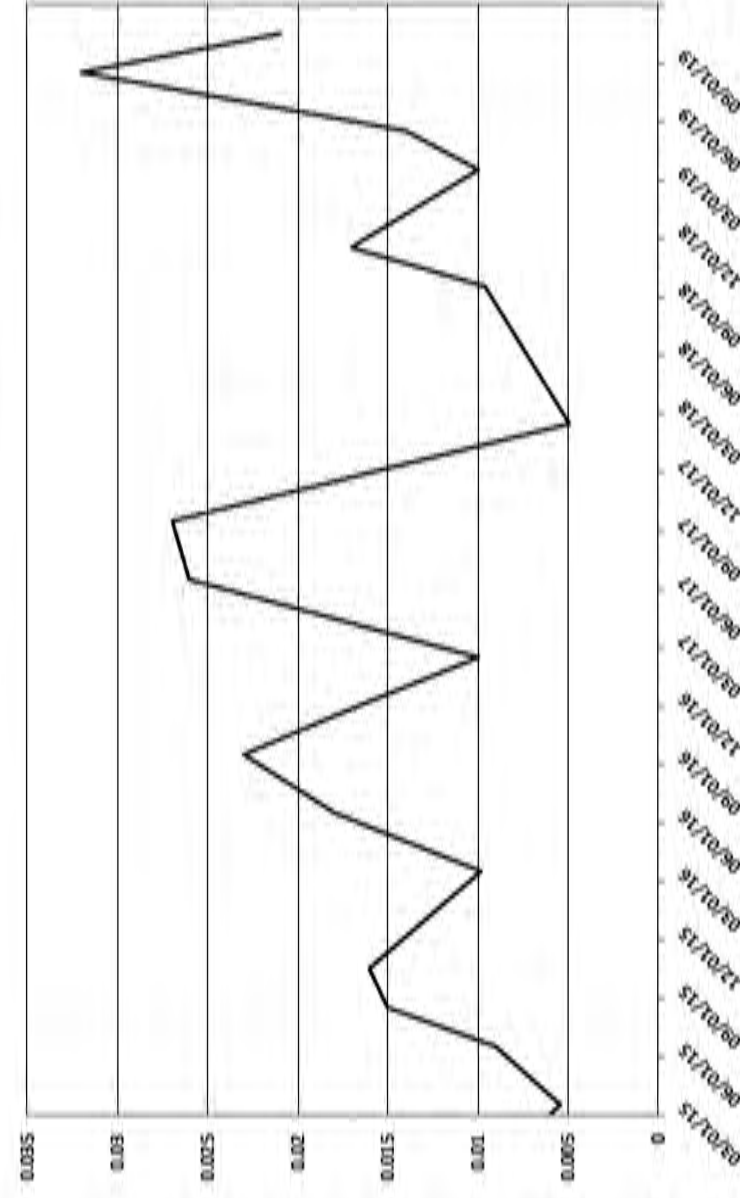
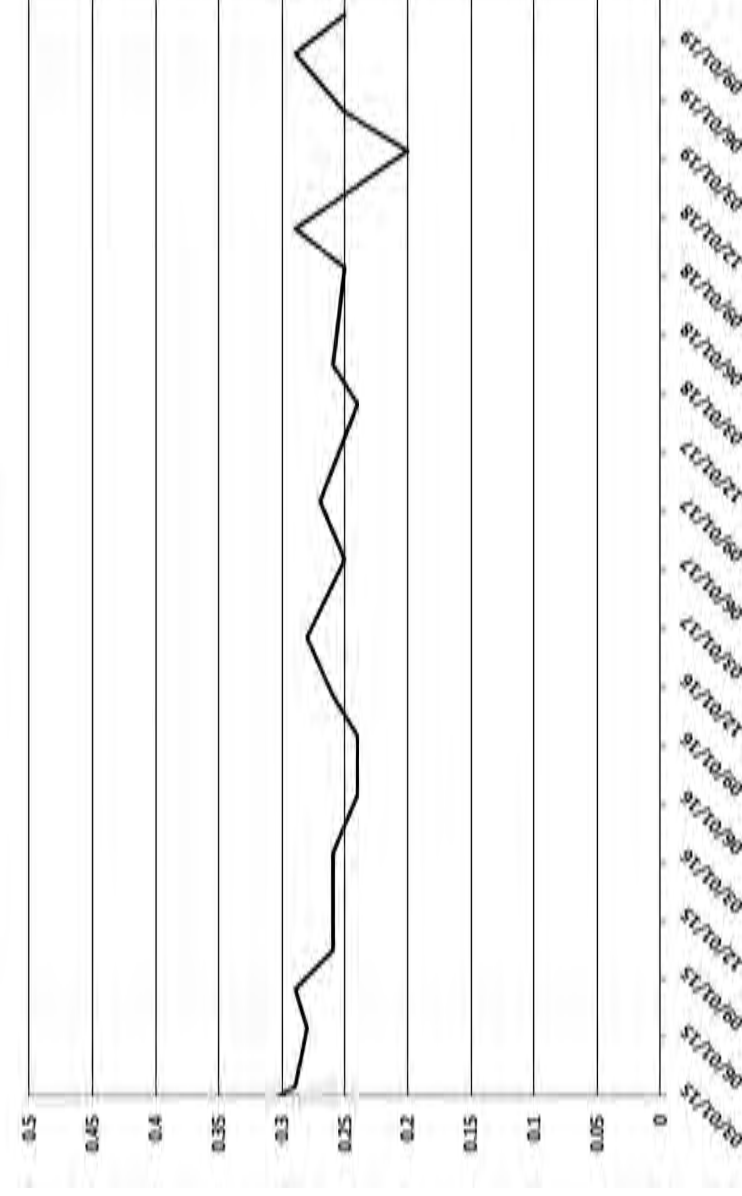
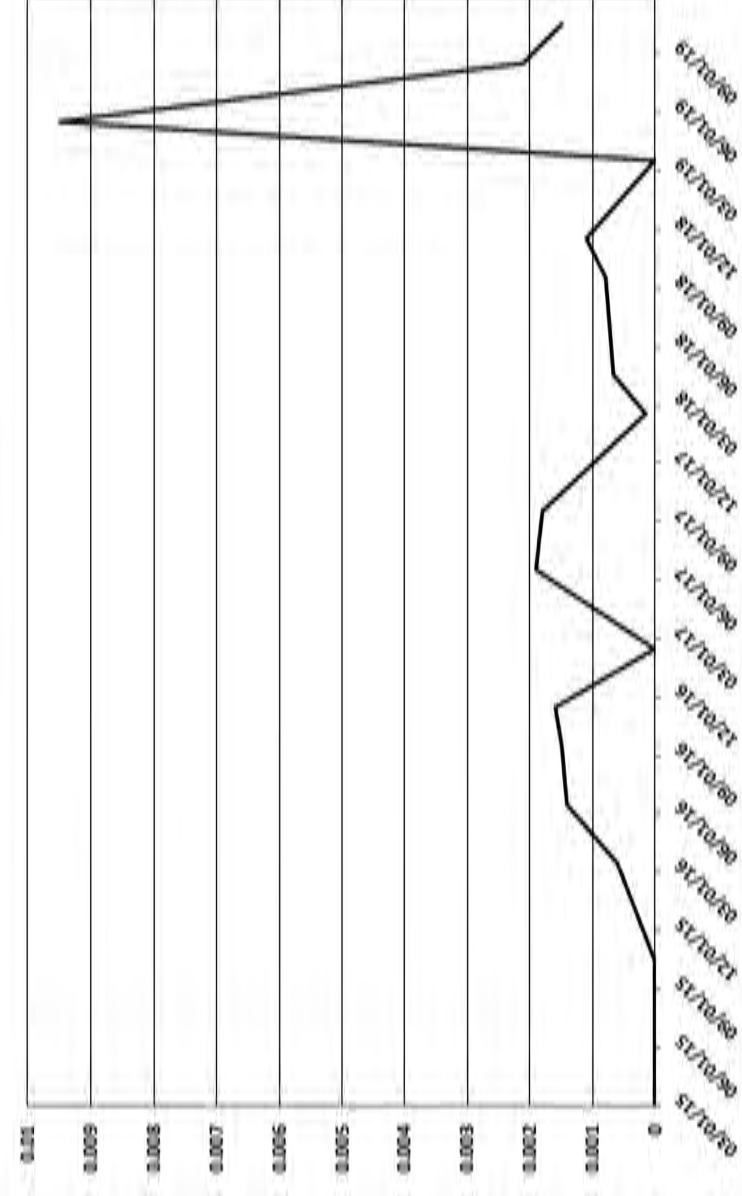
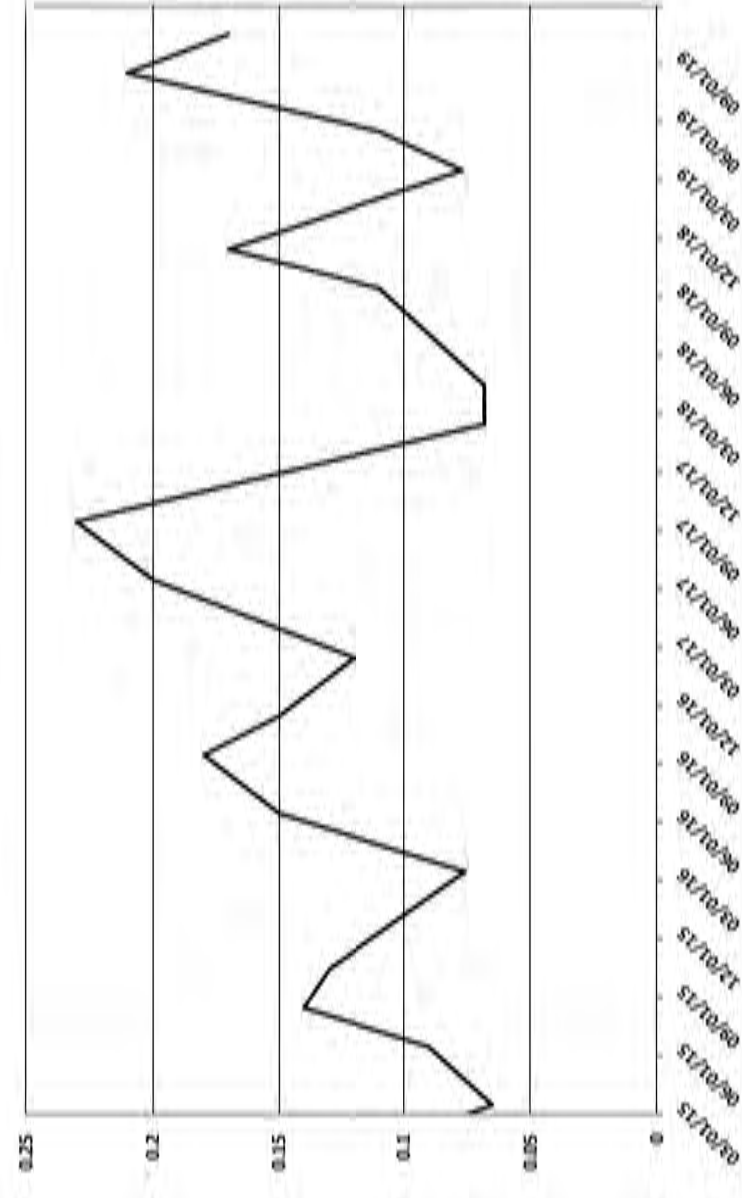


FIGURE 15E

GROUP B XYLENES, TOTAL RESULTS (AUGUST 2019)			
MARATHON PETROLEUM CORP. GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 100'	Date: 9/10/20
Trihydro Corporation 1252 Commerce Drive Laramie, Wyoming 82070 (307) 745-2424 (F) 307-745-7723		File: 697-GROUPB-XYLENES	





**FIGURE 15.1**

BTEX &amp; MTBE THROUGH 2019 - WELL OAPIS-1

**GROUNDWATER MONITORING 2011  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO**

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Laramie, Wyoming 82070  
[www.tribhydro.com](http://www.tribhydro.com)  
(P) 307/745-7474 (F) 307/745-7720

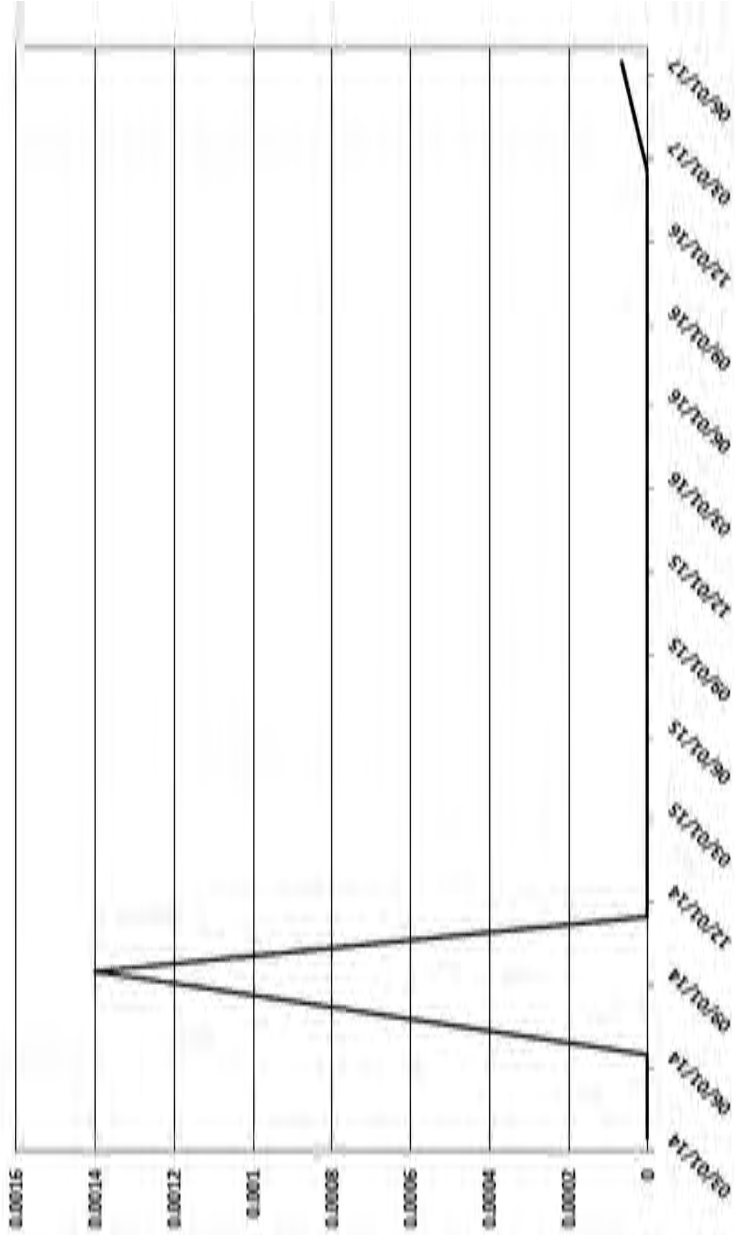
Drawn By: REP	Checked By: BM
---------------	----------------

Scale: NONE

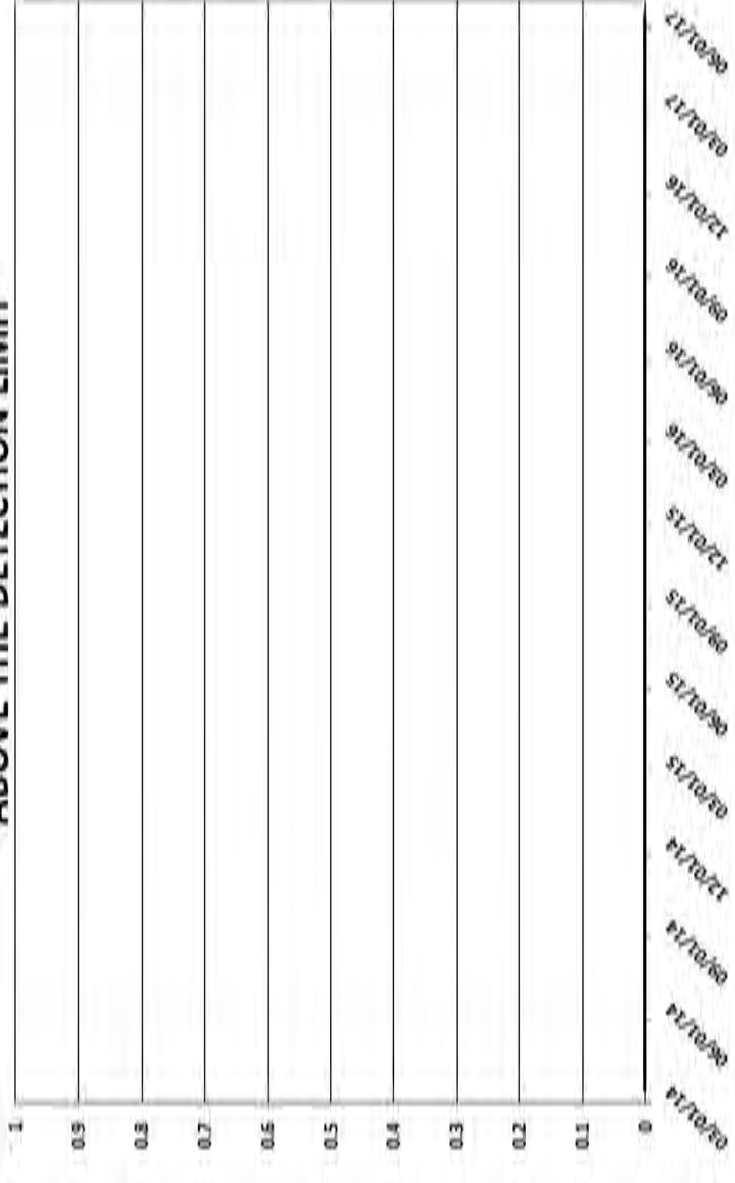
Date: 9/15/2020	File: 697-GWMON-2019-FIGS-15.1-15.12
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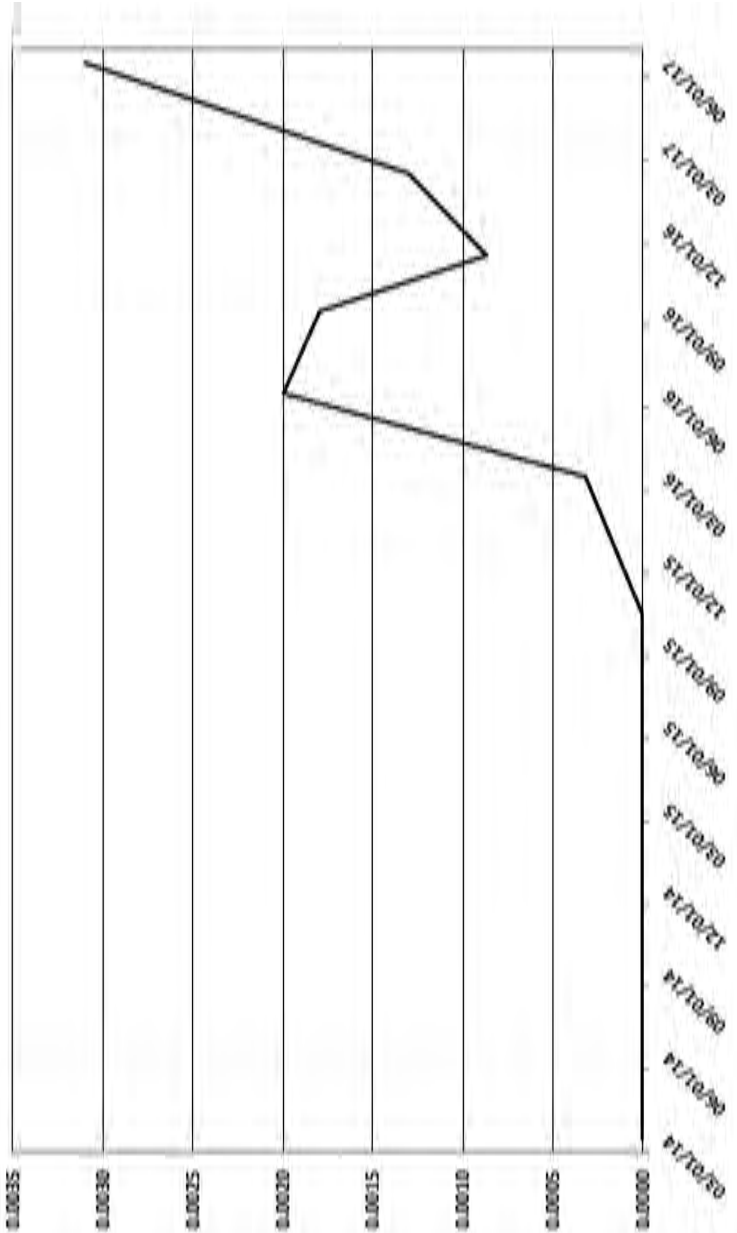
NAPIS-1 BENZENE (mg/L)



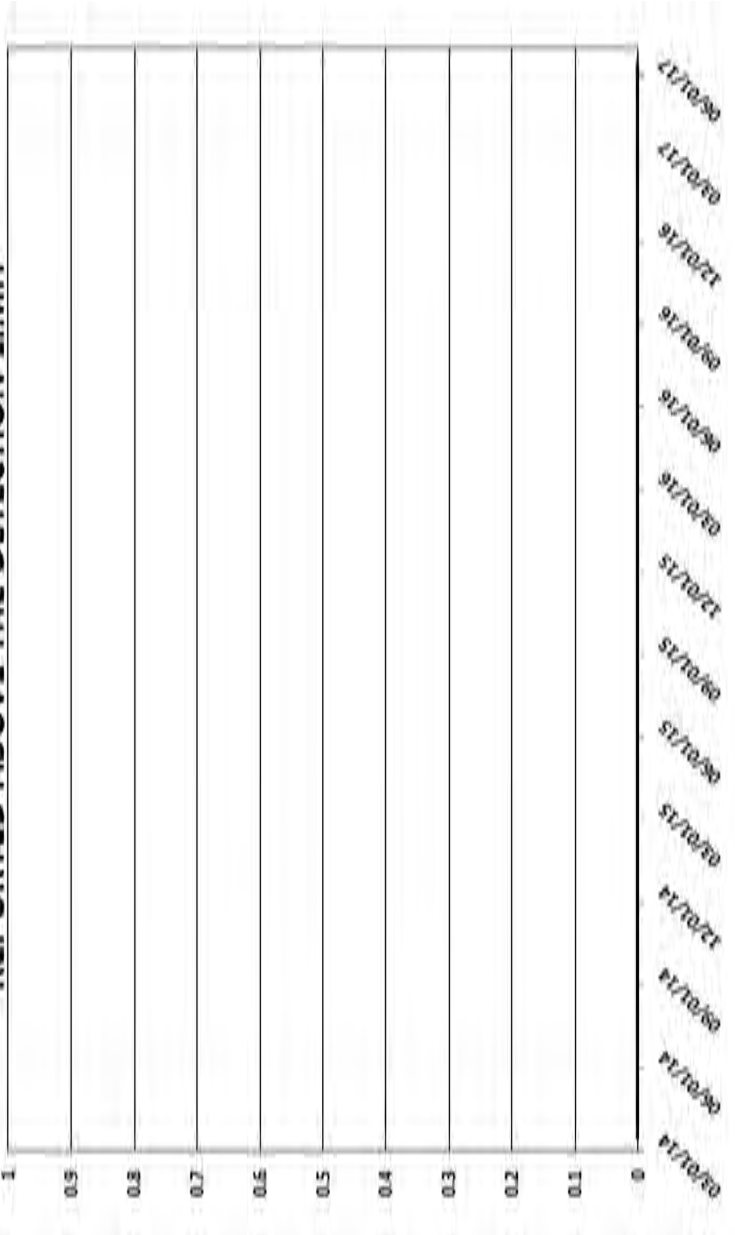
NAPIS-1 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



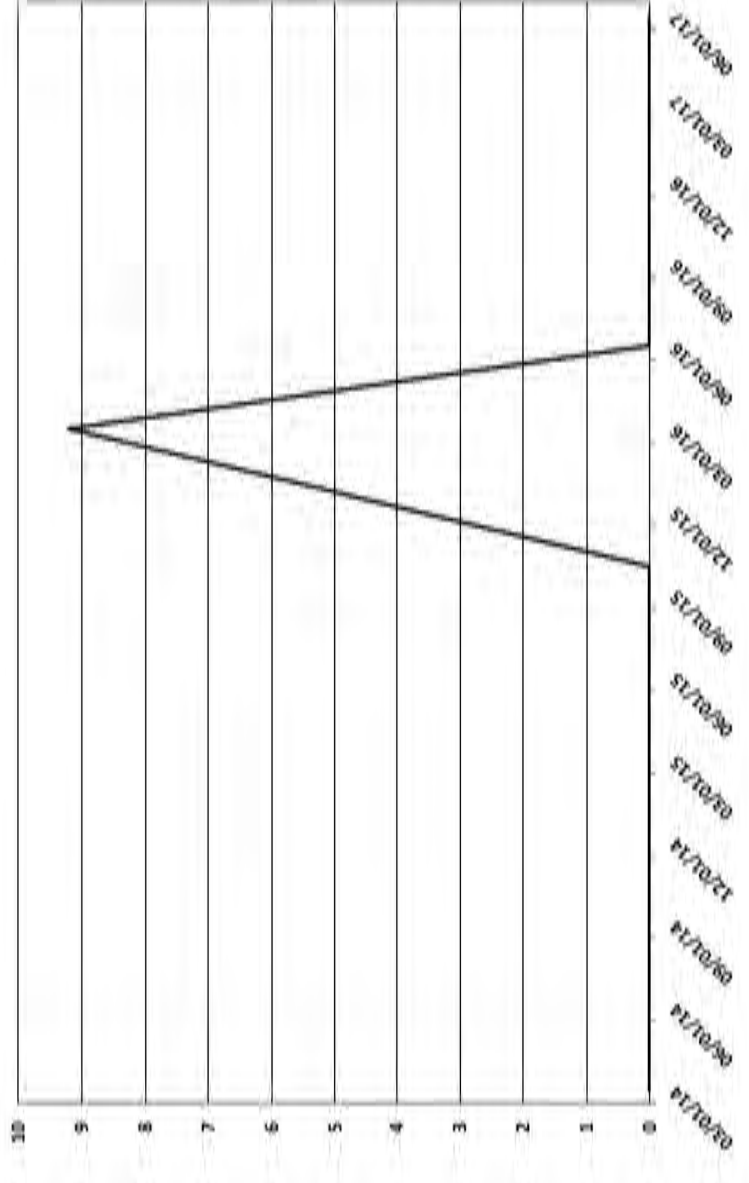
NAPIS-1 MTBE (mg/L)



NAPIS-1 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



NAPIS-1 TOTAL XYLENES (mg/L)





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BTEX & MTBE THROUGH 2019 - WELL NAPIS-1

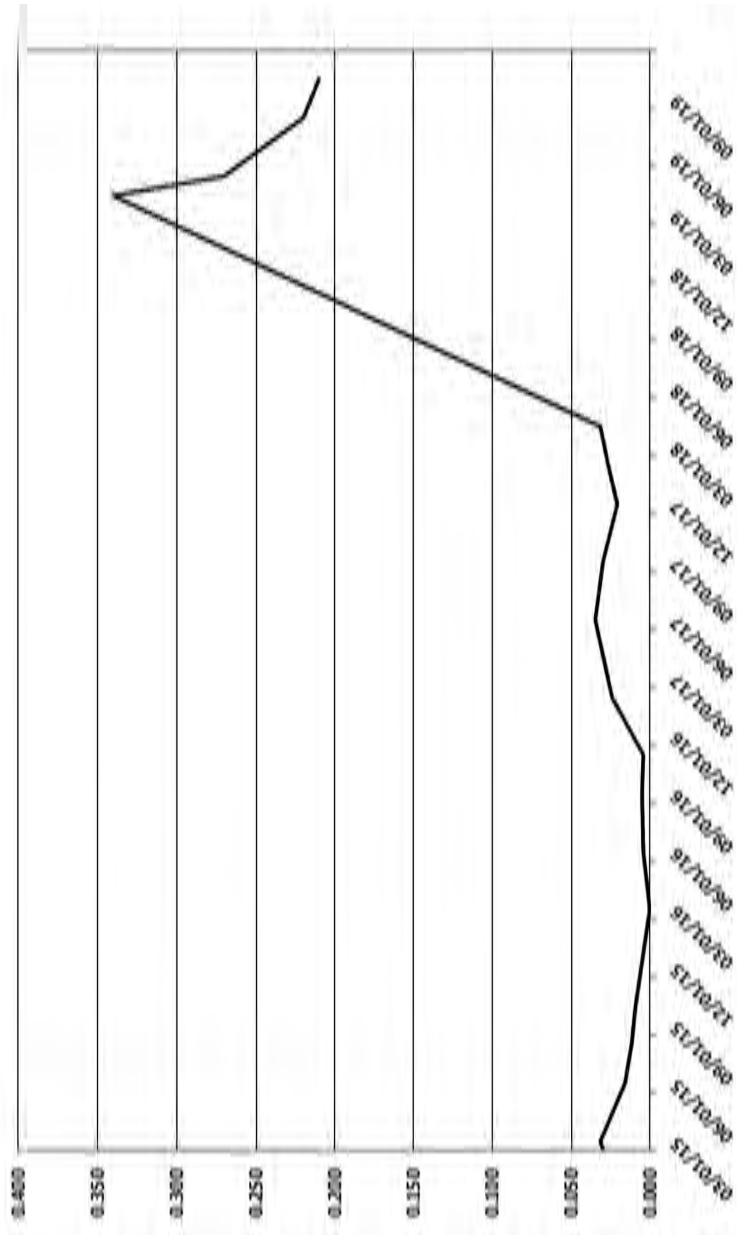
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

FIGURE 15.2

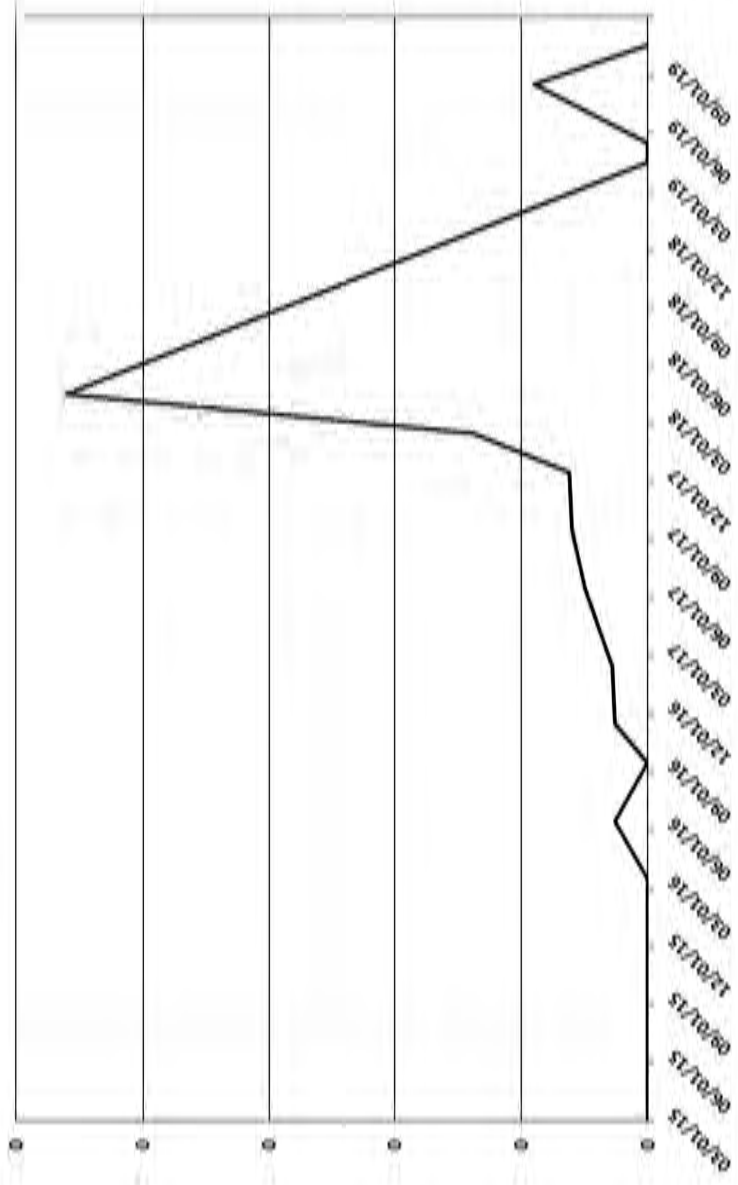
Drawn By: REP | Checked By: BM | Date: 9/15/2020 | File: 697-GWMON-2019-FIGS-15.1-15.12



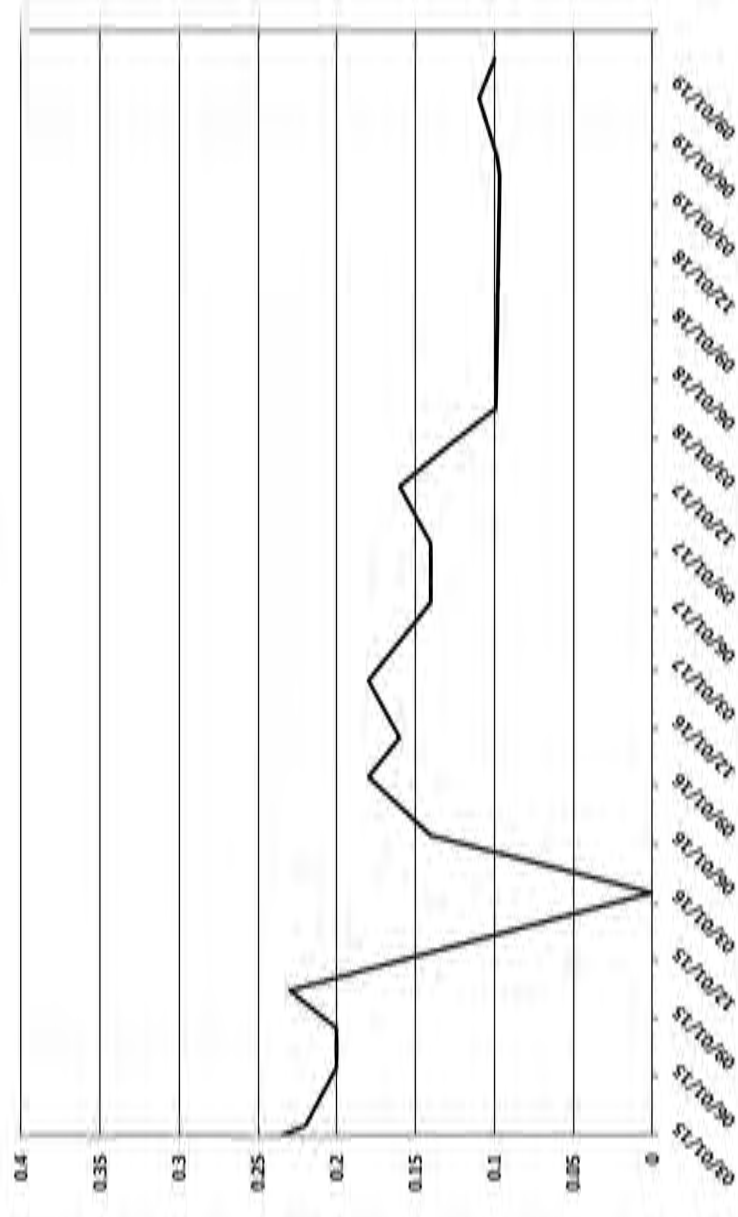
NAPIS-2 BENZENE (mg/L)



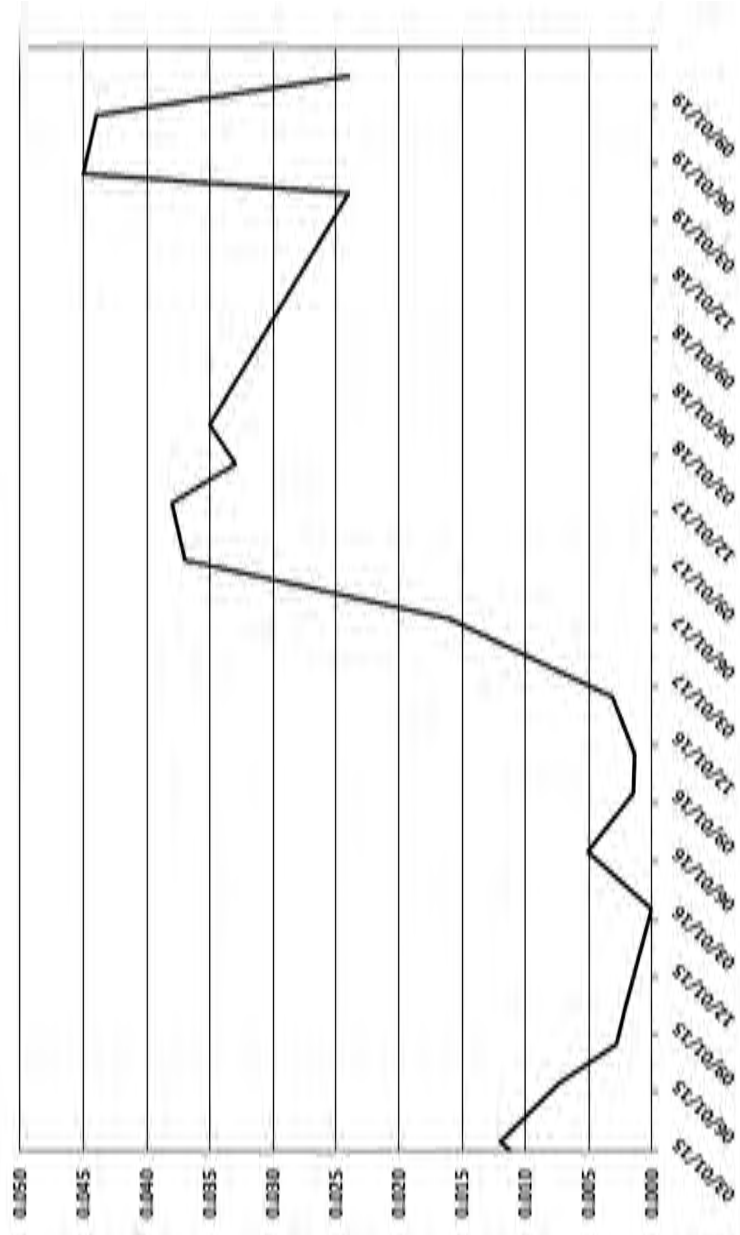
NAPIS-2 TOLUENE (mg/L)



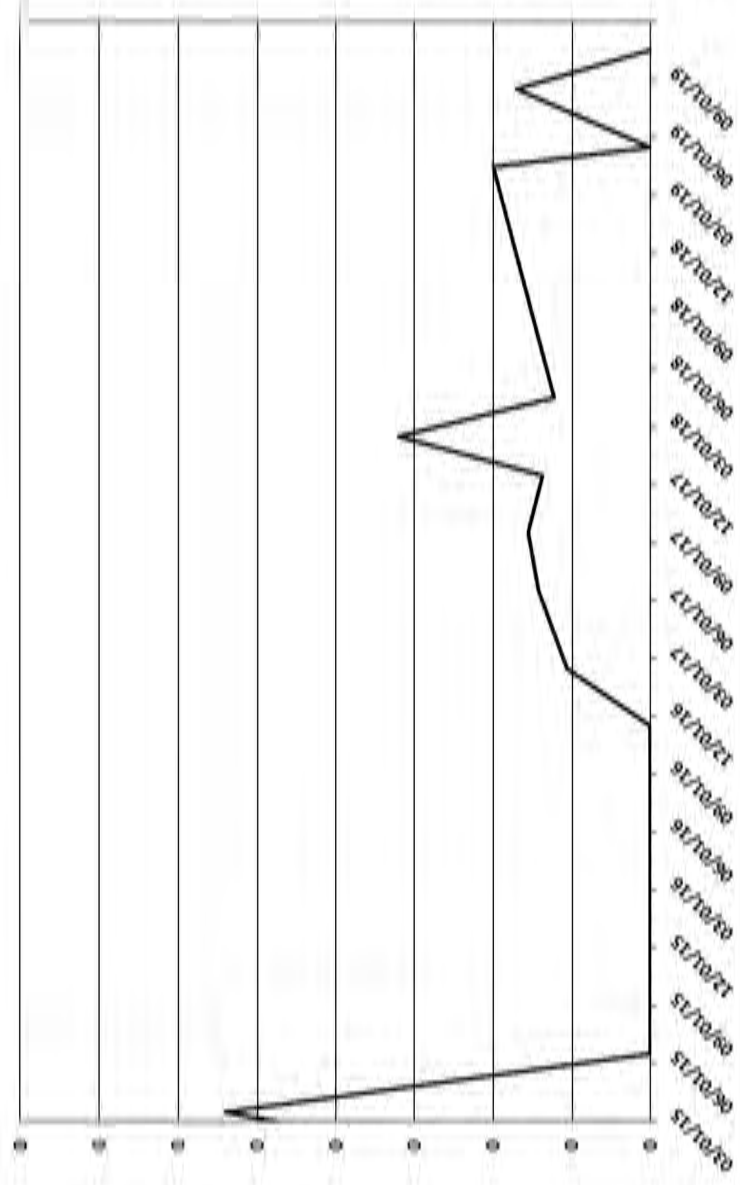
NAPIS-2 MTBE (mg/L)



NAPIS-2 ETHYLBENZENE (mg/L)



NAPIS-2 TOTAL XYLENES (mg/L)





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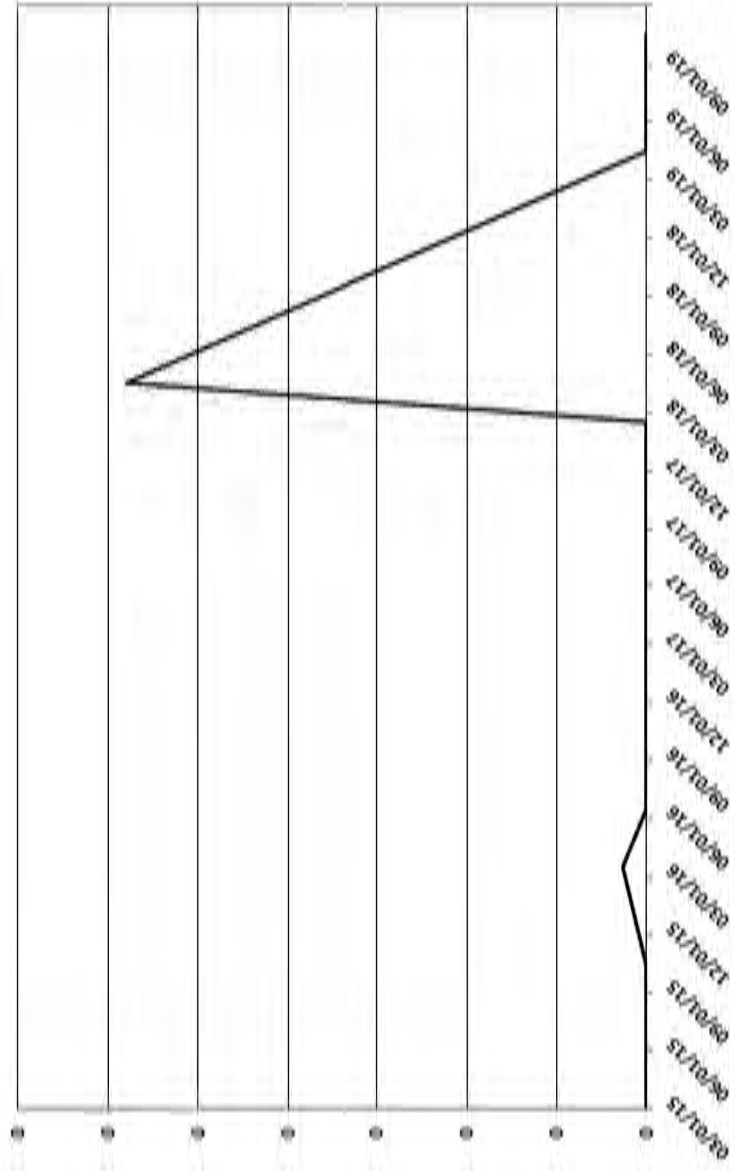
**BTEX & MTBE THROUGH 2019 - WELL NAPIS-2**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

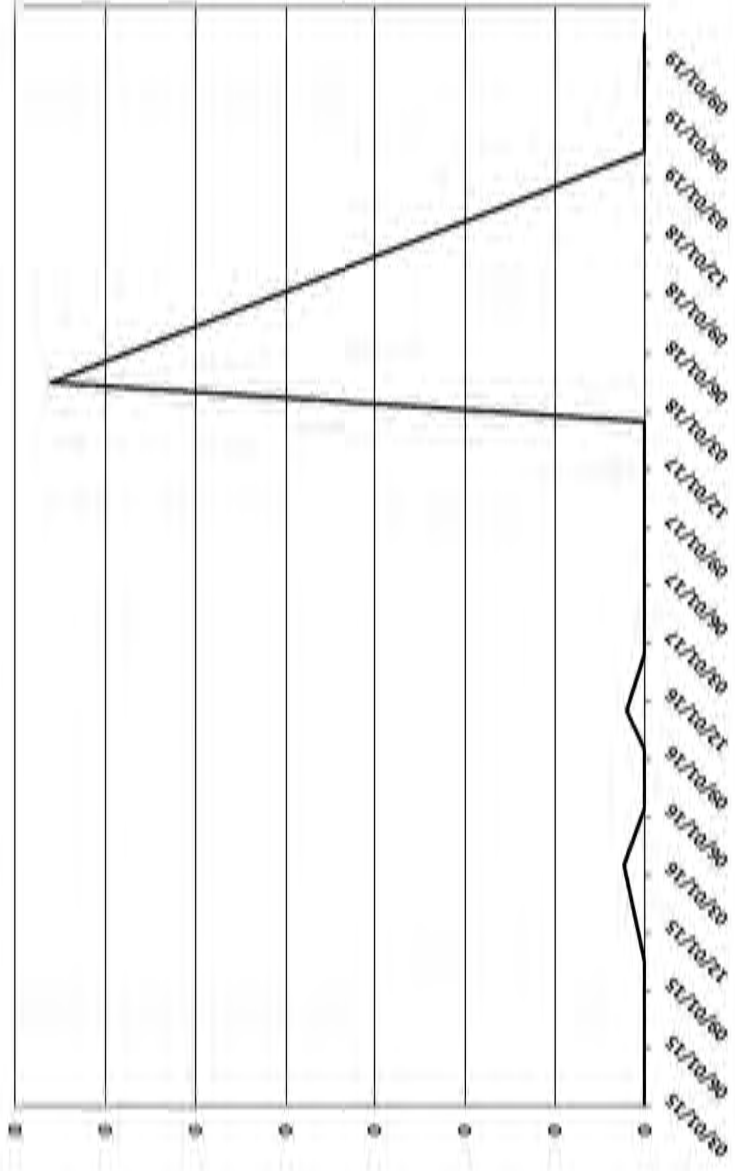
FIGURE 15.3



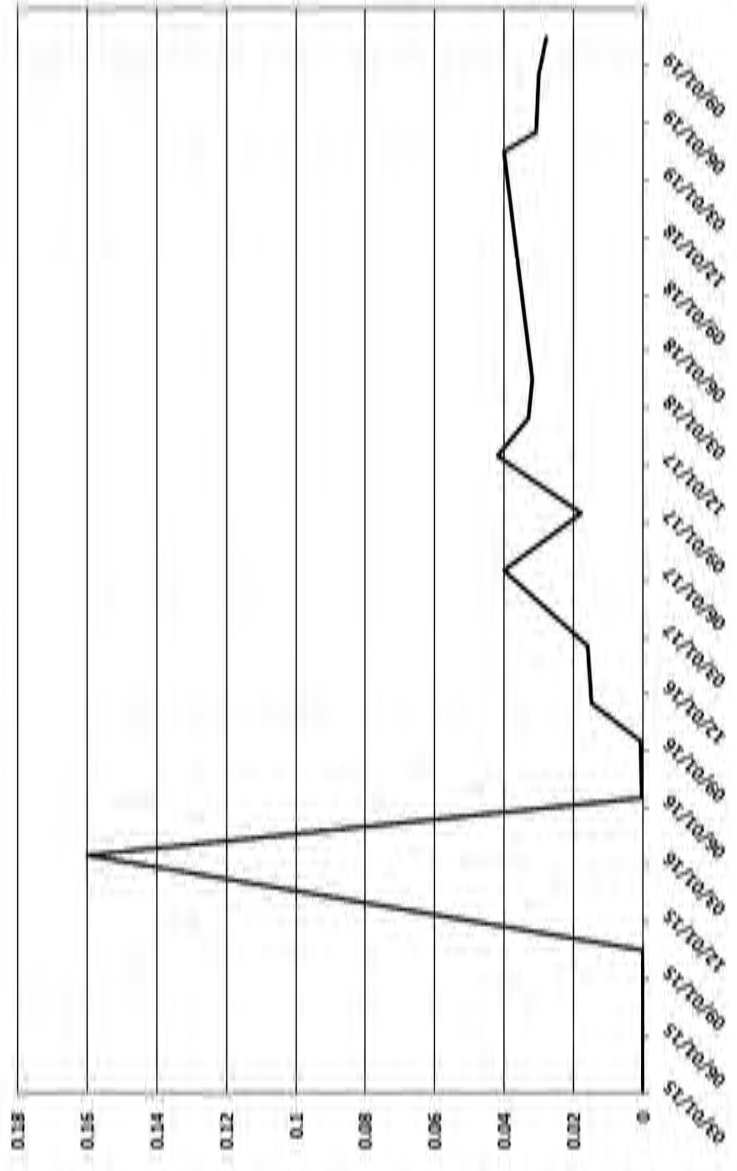
NAPIS-3 BENZENE (mg/L)



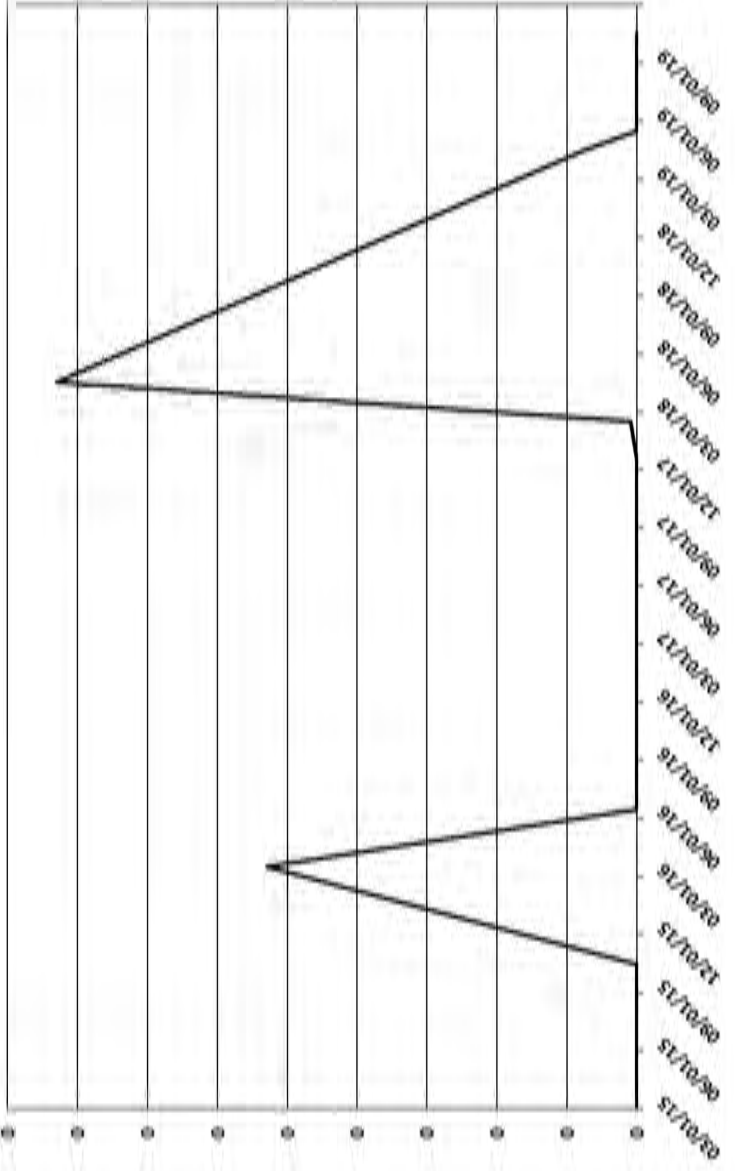
NAPIS-3 TOLUENE (mg/L)



NAPIS-3 MTBE (mg/L)



NAPIS-3 ETHYLBENZENE (mg/L)



NAPIS-3 TOTAL XYLENES (mg/L)

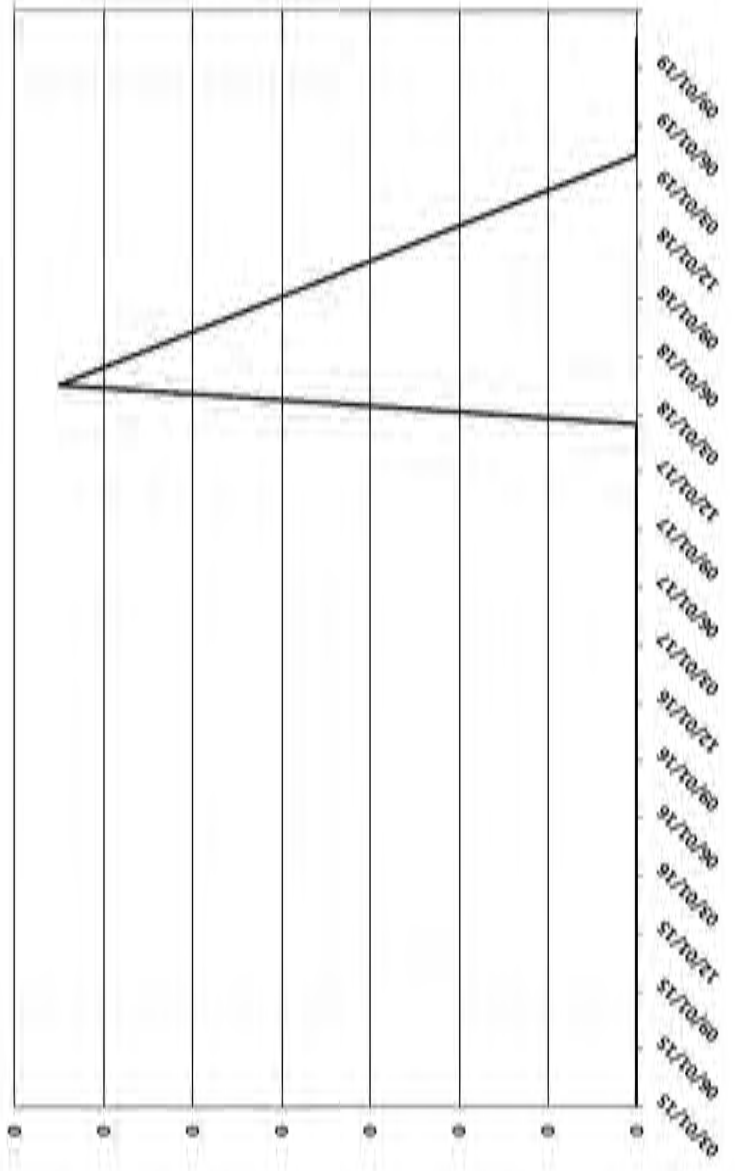
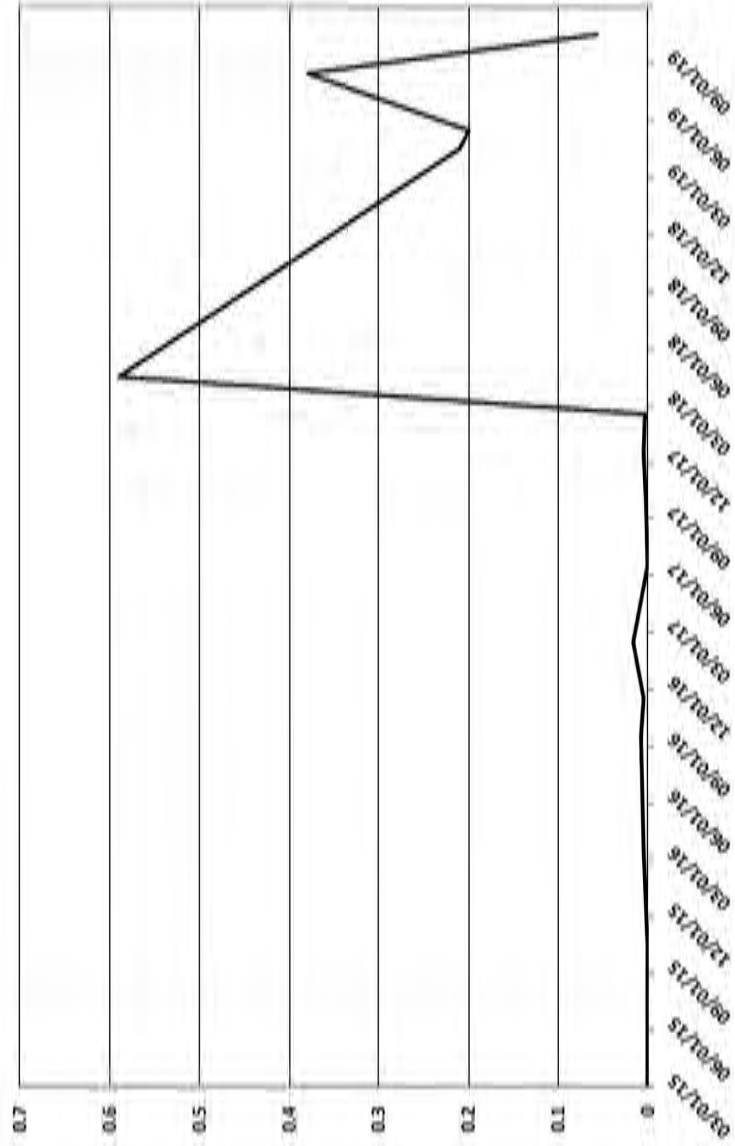


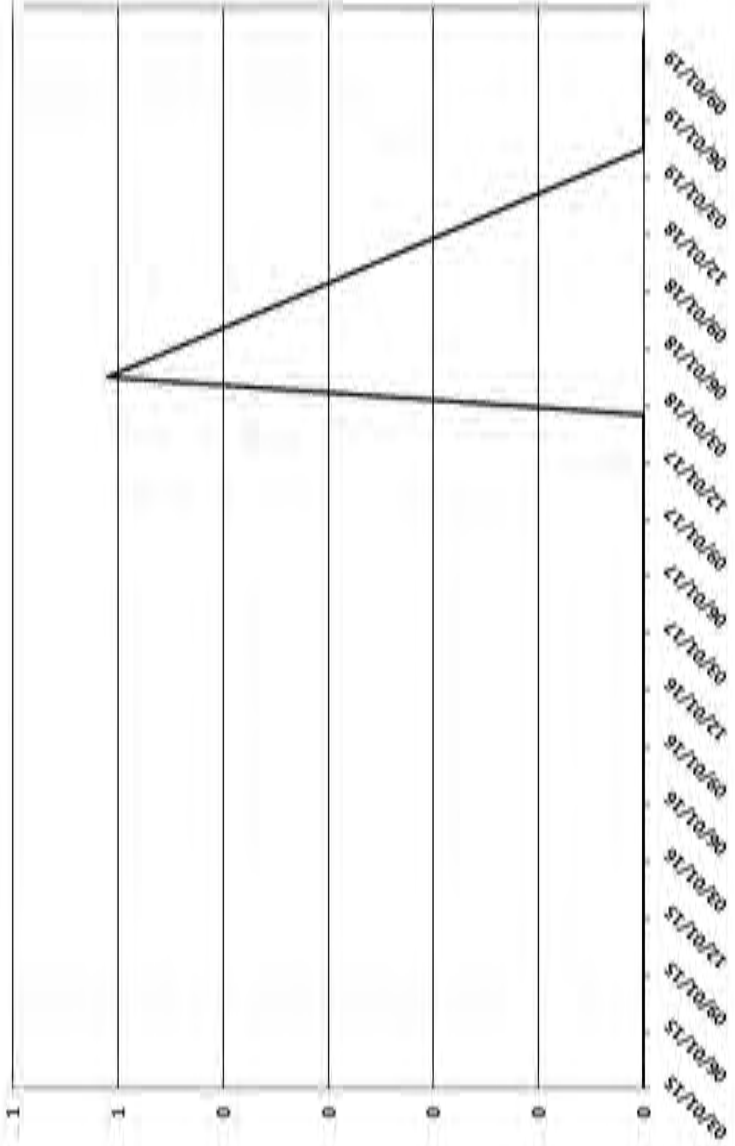
FIGURE 15.5



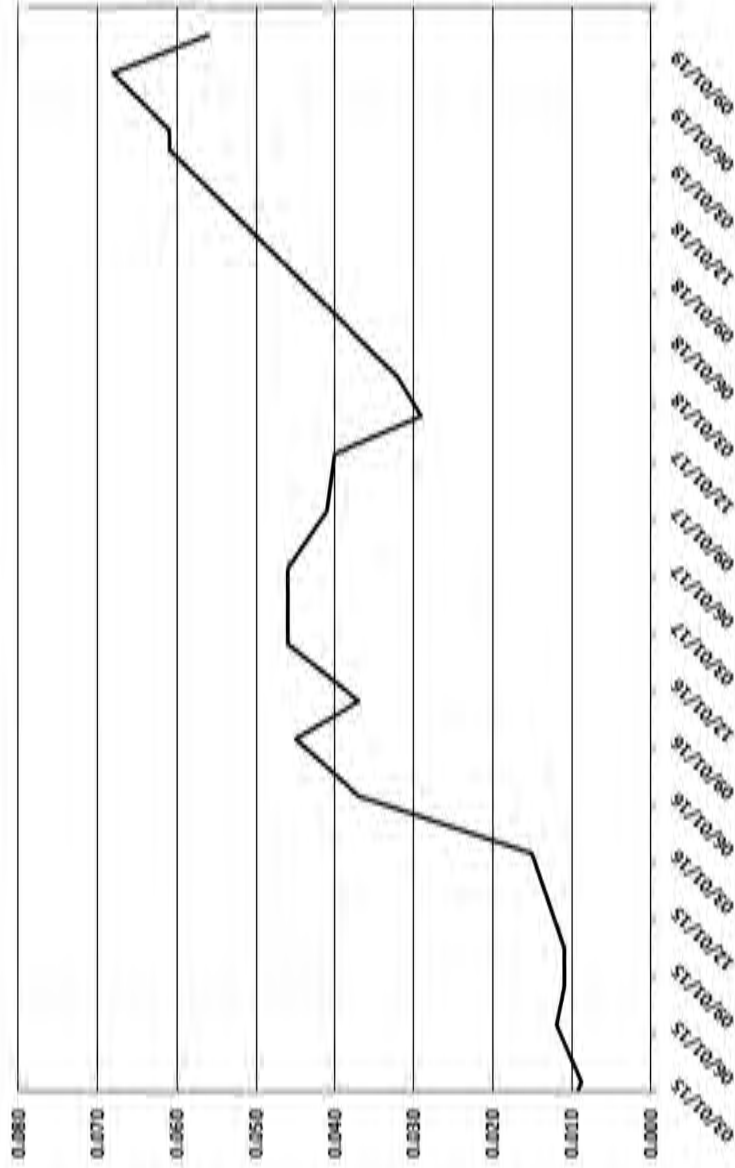
KA-3 BENZENE (mg/L)



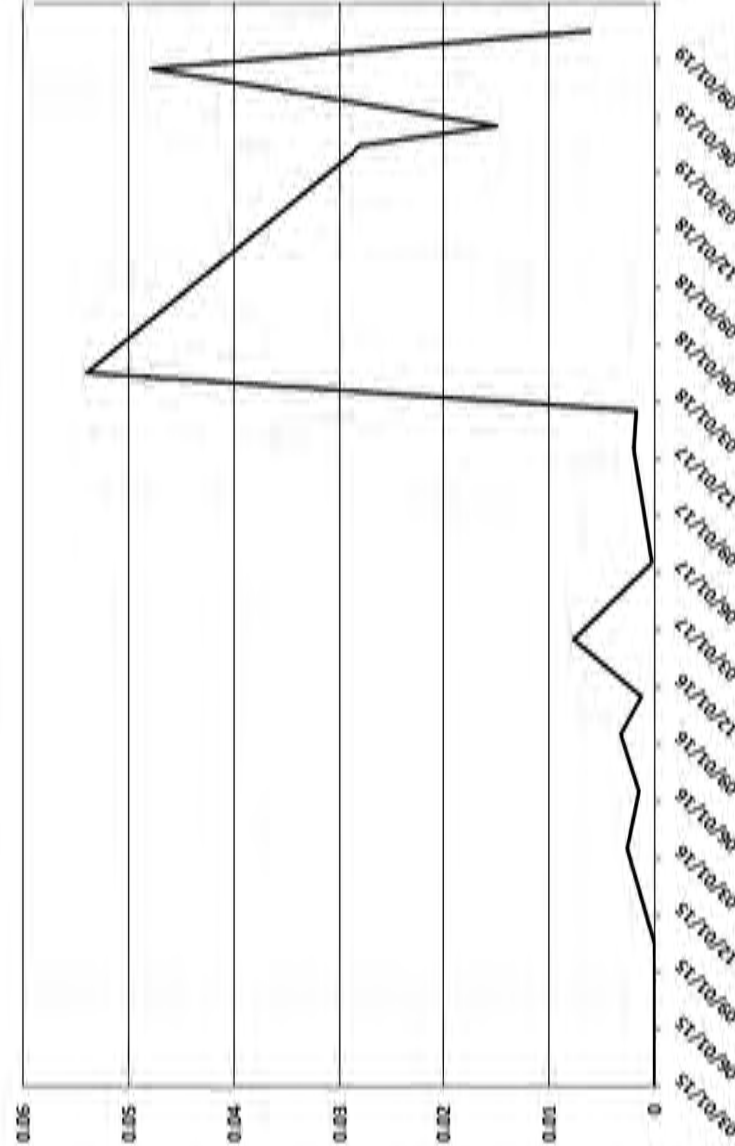
KA-3 TOLUENE (mg/L)



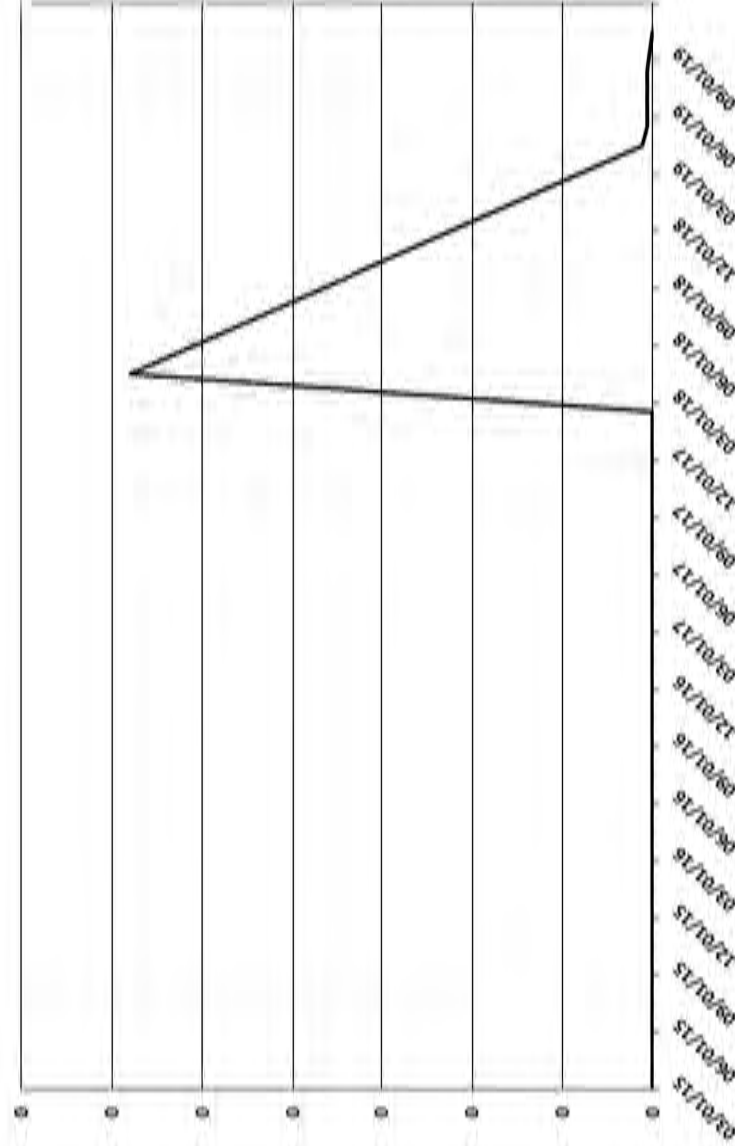
KA-3 MTBE (mg/L)



KA-3 ETHYLBENZENE (mg/L)



KA-3 TOTAL XYLENES (mg/L)



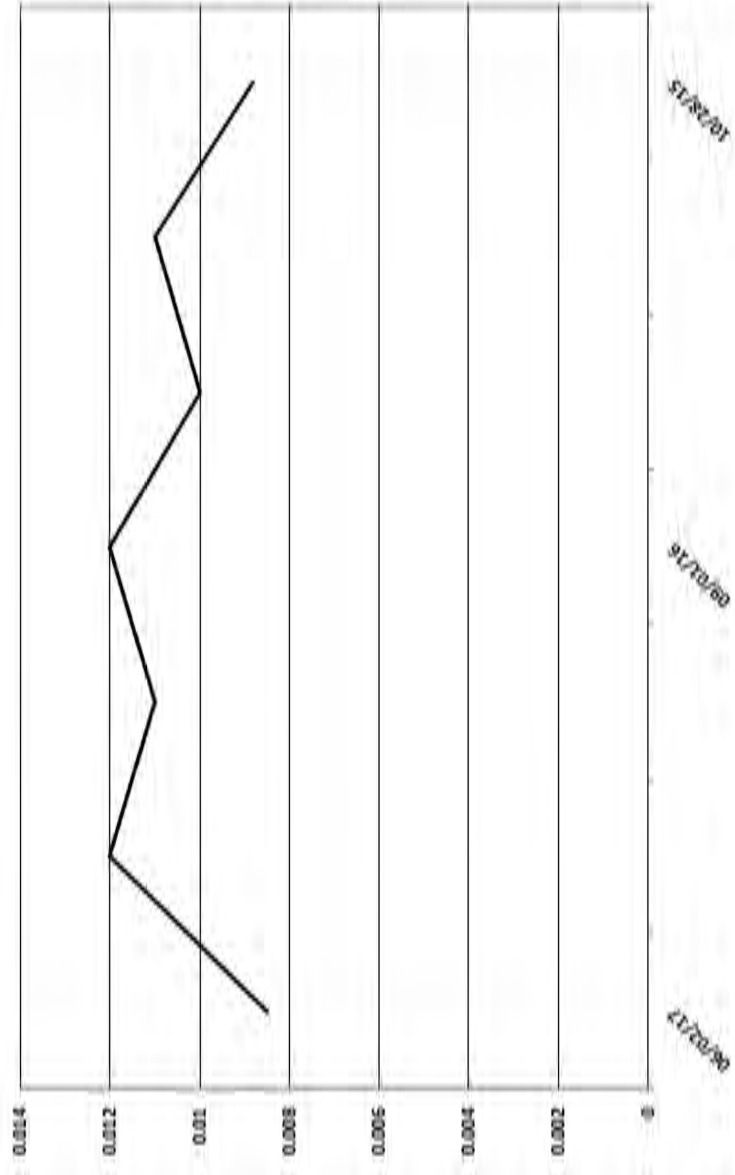
Drawn By: REP Checked By: BM  
Scale: NONE  
Date: 9/15/2020  
File: 697-GWMON-2019-FIGS-15-1-15.12

FIGURE 15.5

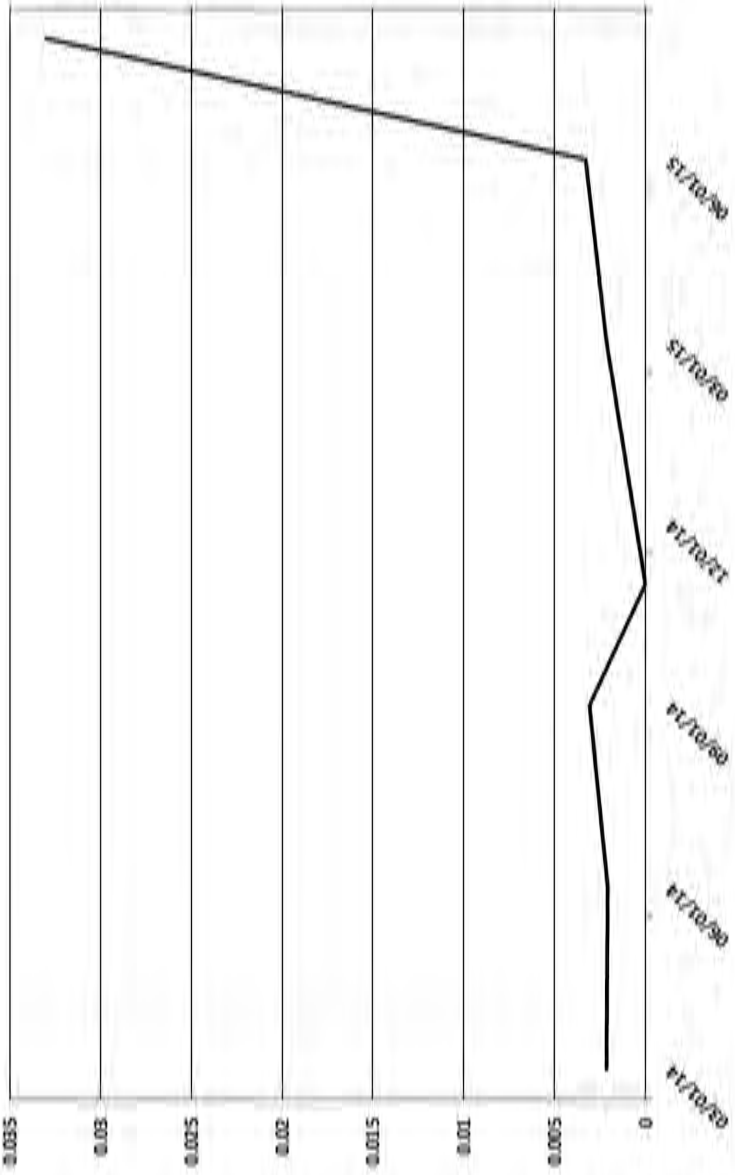
BTEX & MTBE THROUGH 2019 - WELL KA-3  
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



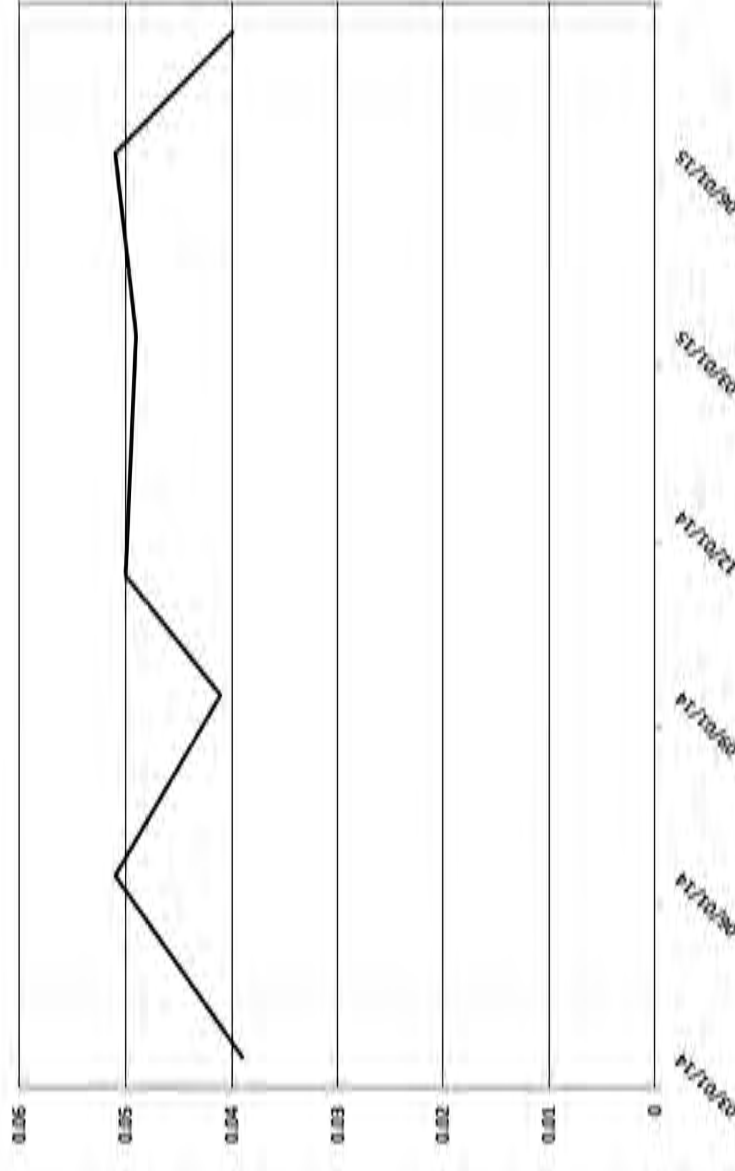
GWM-1 BENZENE (mg/L)



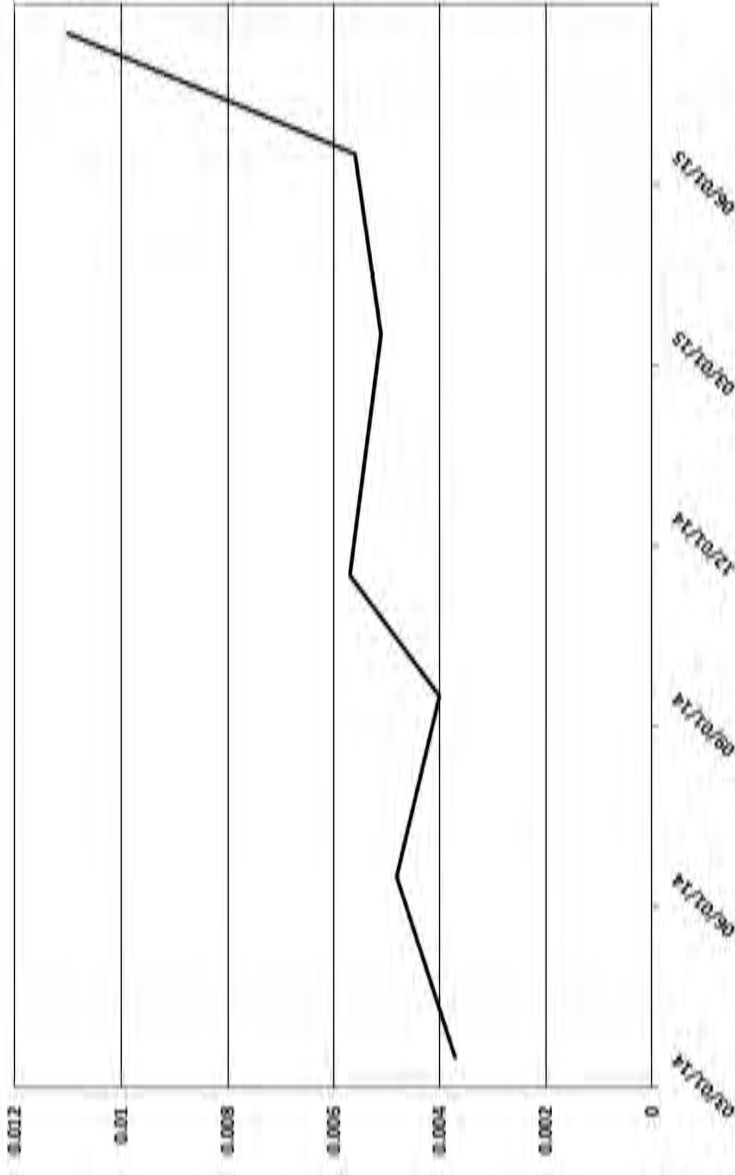
GWM-1 TOLUENE (mg/L)



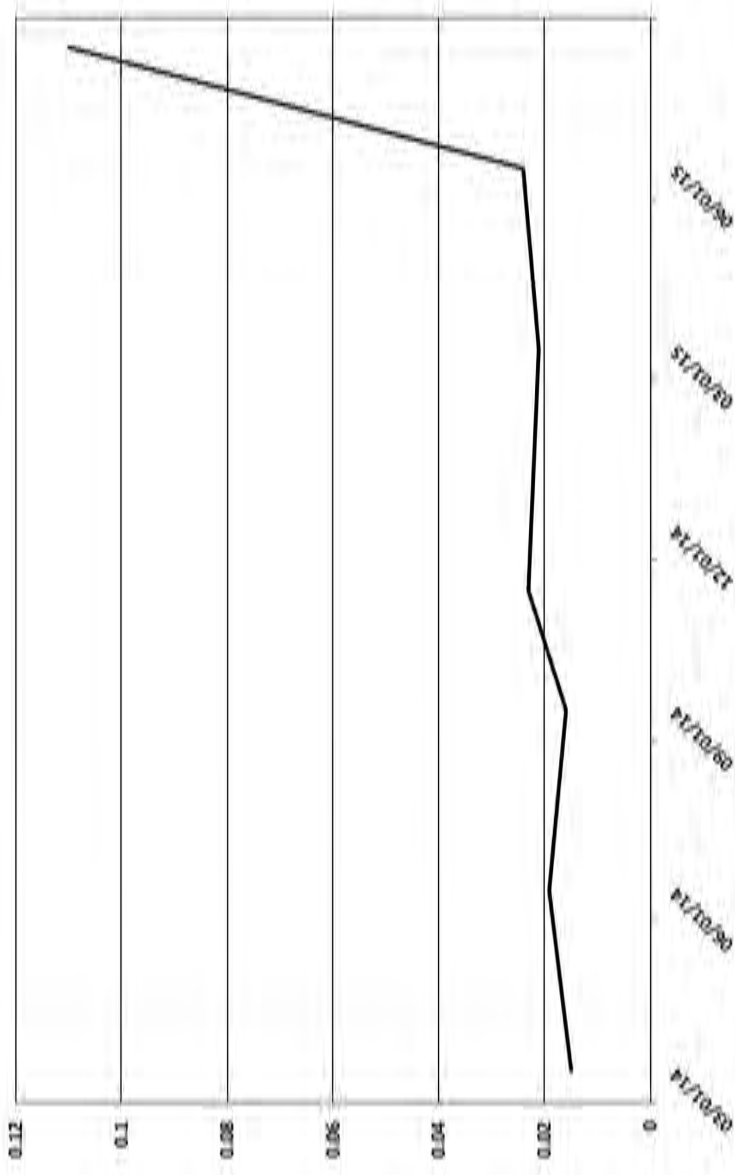
GWM-1 MTBE (mg/L)



GWM-1 ETHYLBENZENE (mg/L)



GWM-1 TOTAL XYLENES (mg/L)





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BTEX & MTBE THROUGH 2019 - WELL GMW-1

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Scale: NONE

Drawn By: REP Checked By: BM

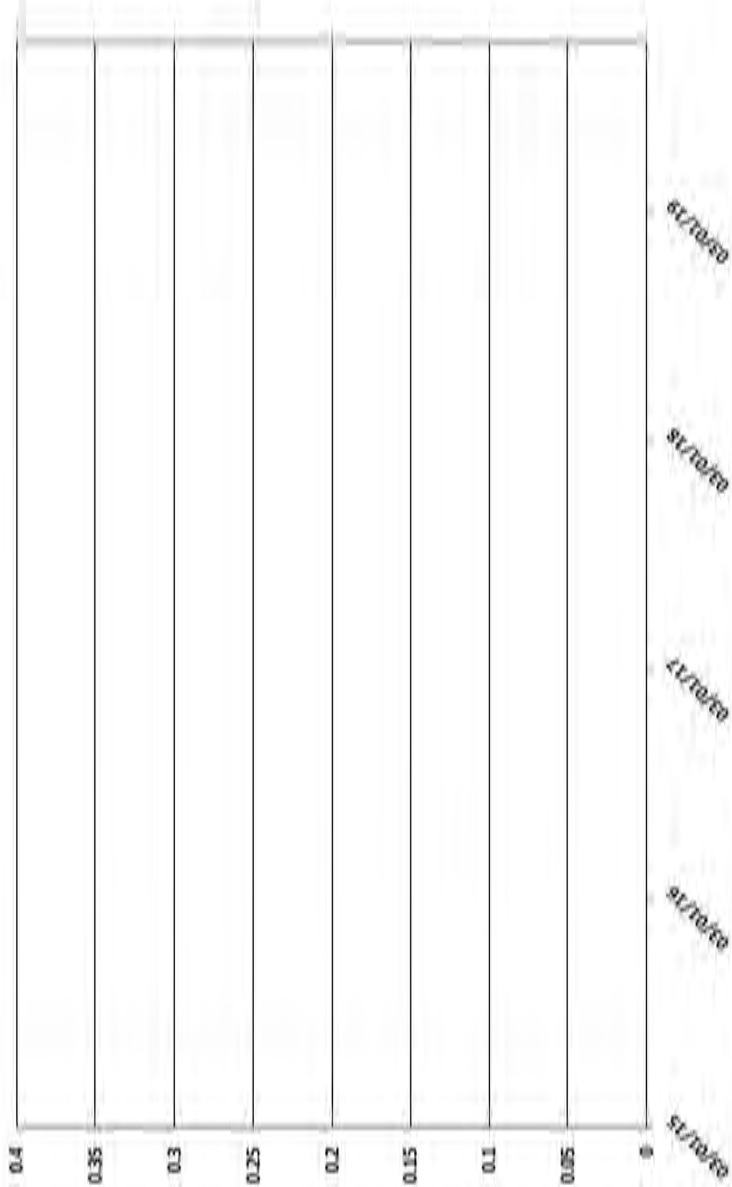
Date: 9/15/2020

File: 697-GWMON-2019-FIGS-15.1-15.12

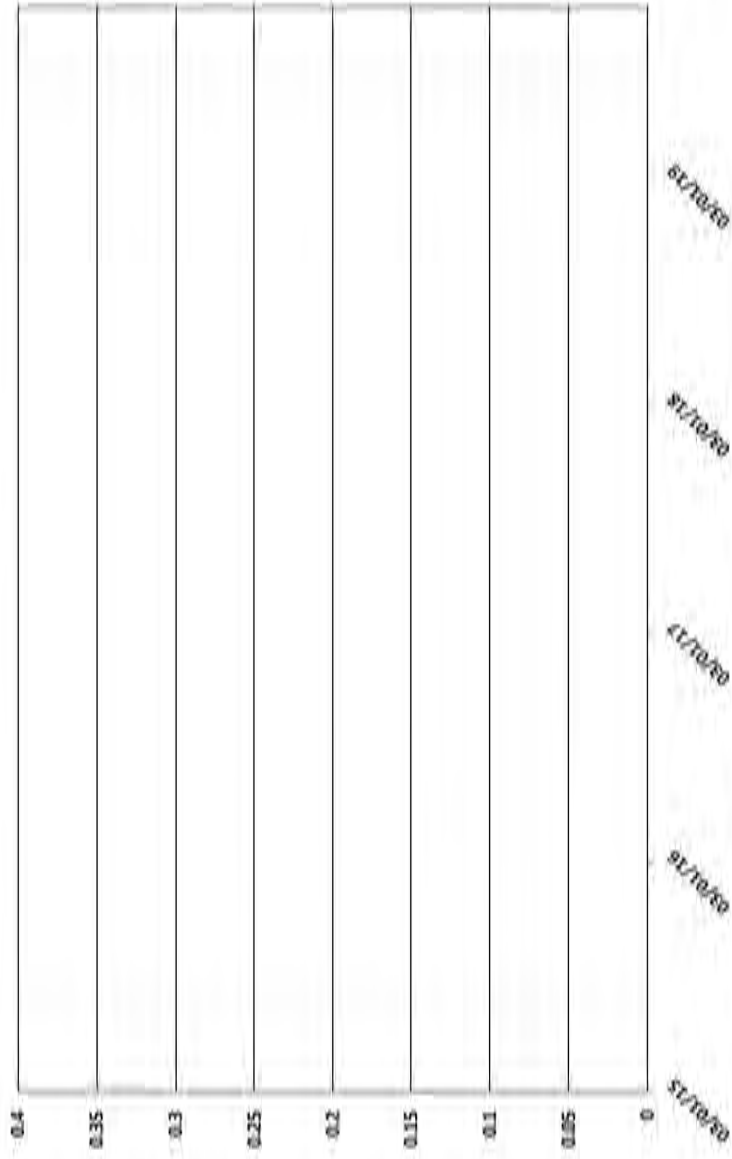
FIGURE 15.6



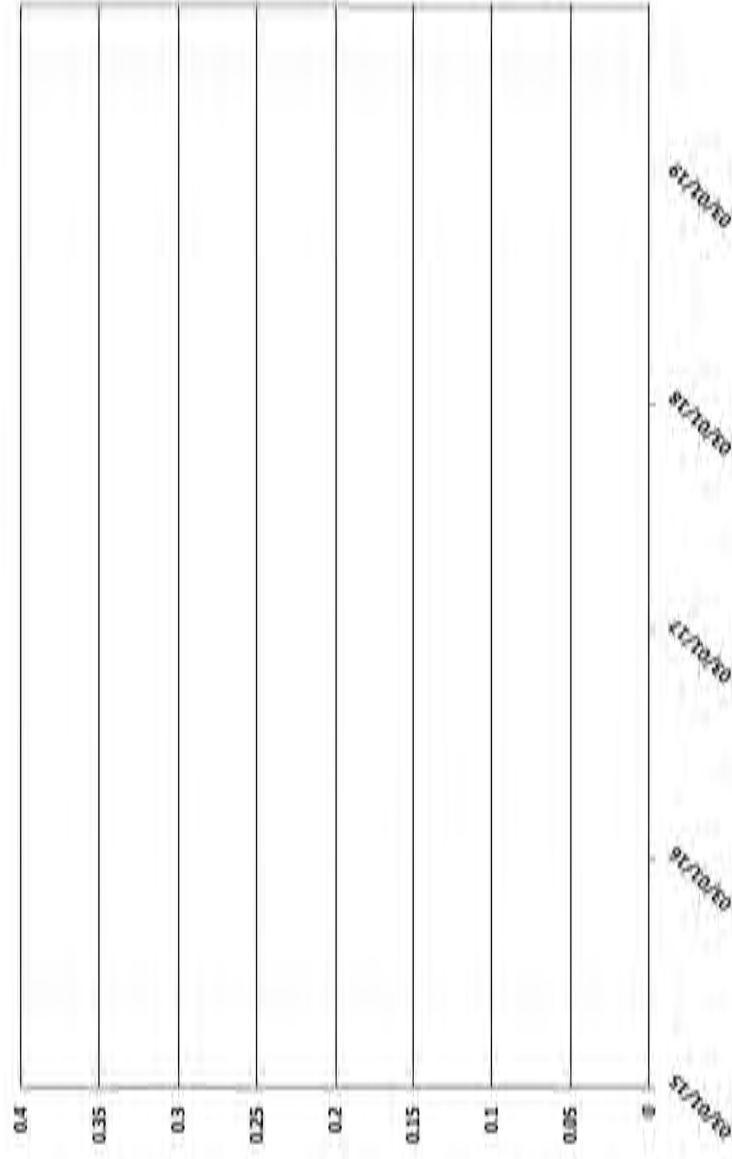
GWM-2 BENZENE - DRY SINCE 2014



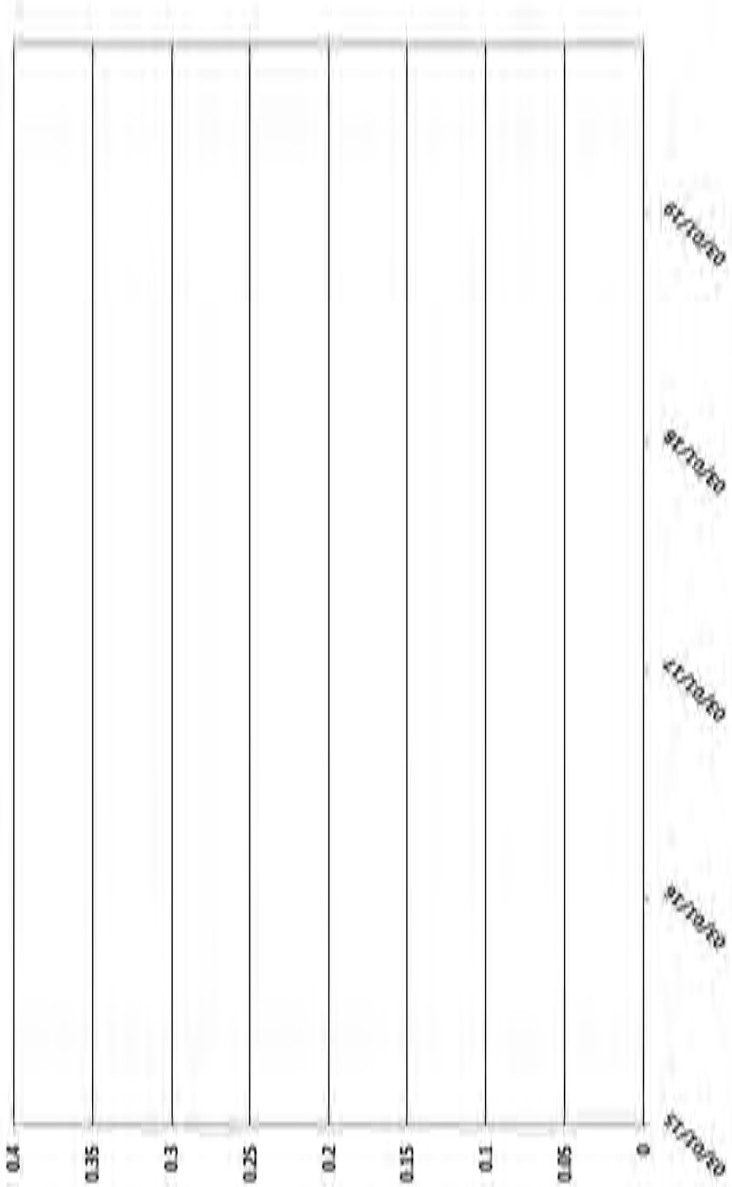
GWM-2 TOLUENE - DRY SINCE 2014



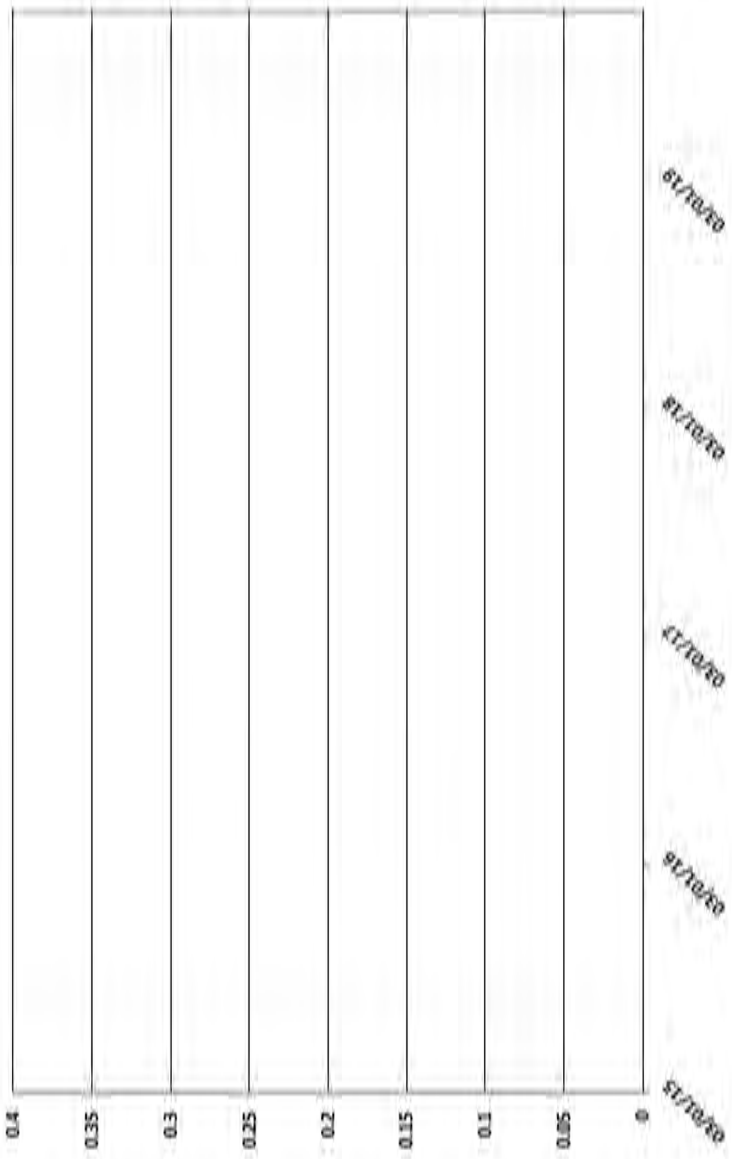
GWM-2 MTBE - DRY SINCE 2014



GWM-2 ETHYLBENZENE - DRY SINCE 2014



GWM-2 TOTAL XYLENES - DRY SINCE 2014



GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
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FIGURE 15.7

BTEX & MTBE THROUGH 2019 - WELL GWM-2

Scale: NONE

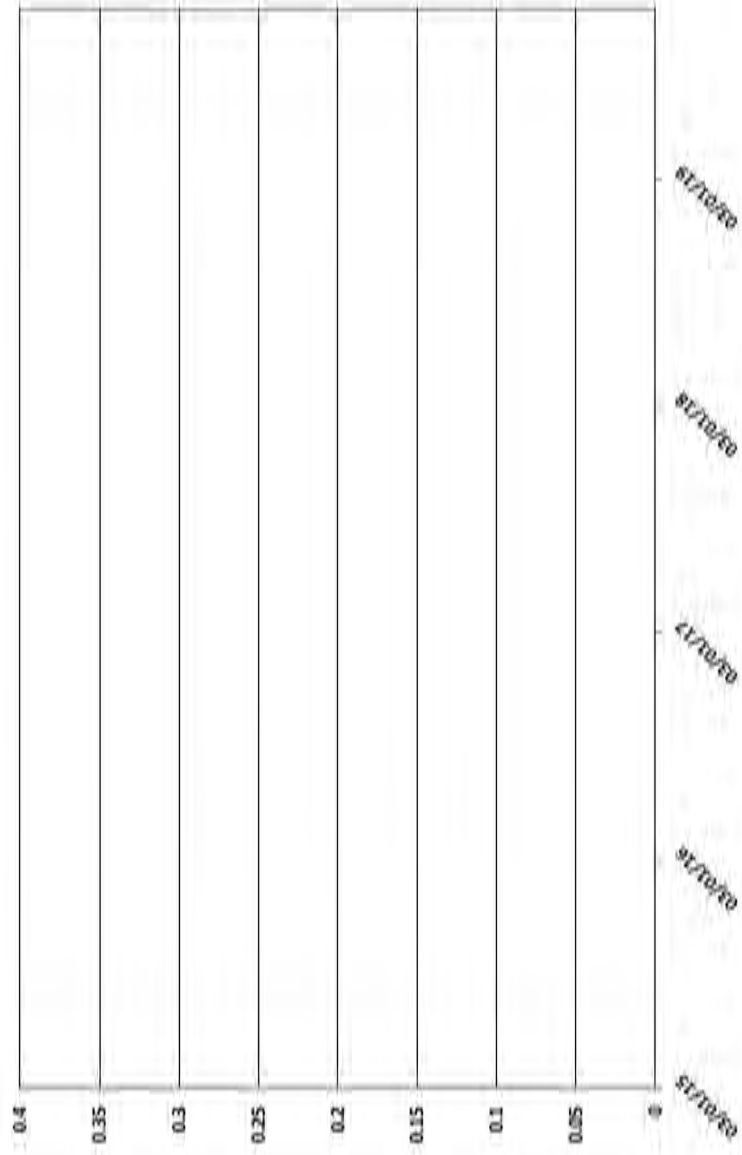
Drawn By: REP Checked By: BM

Date: 9/15/2020

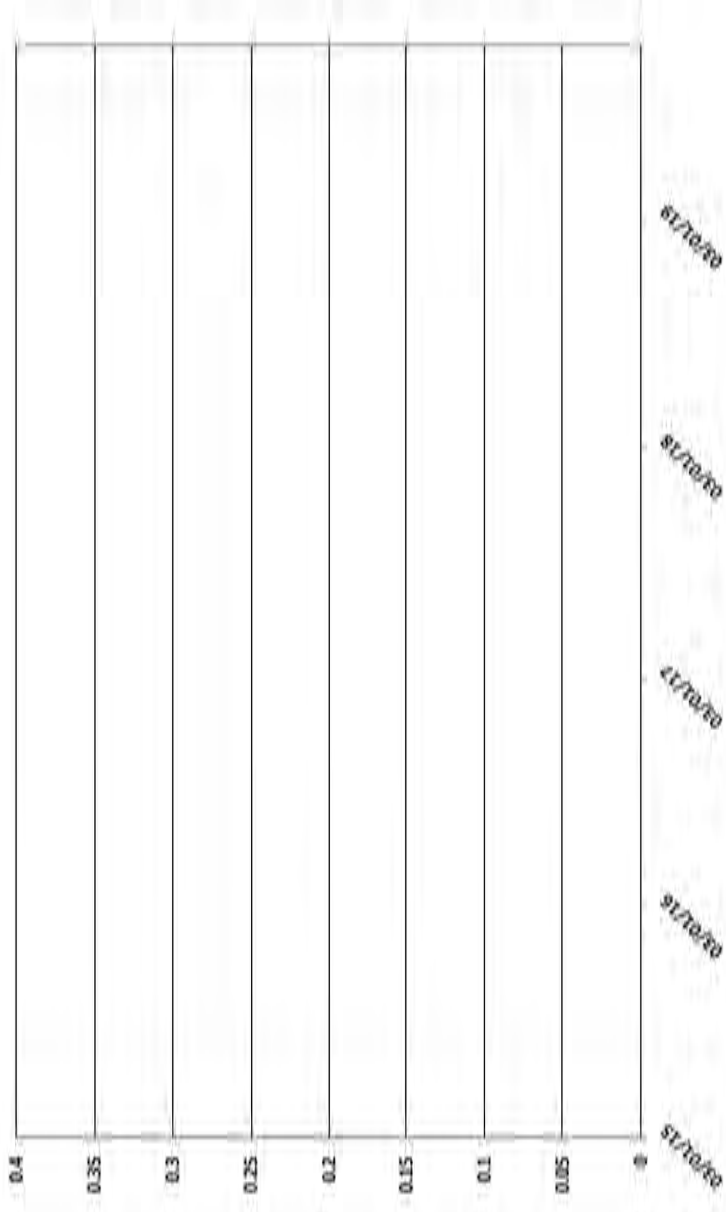
File: 697-GWMON-2019-FIGS-15.1-15.12



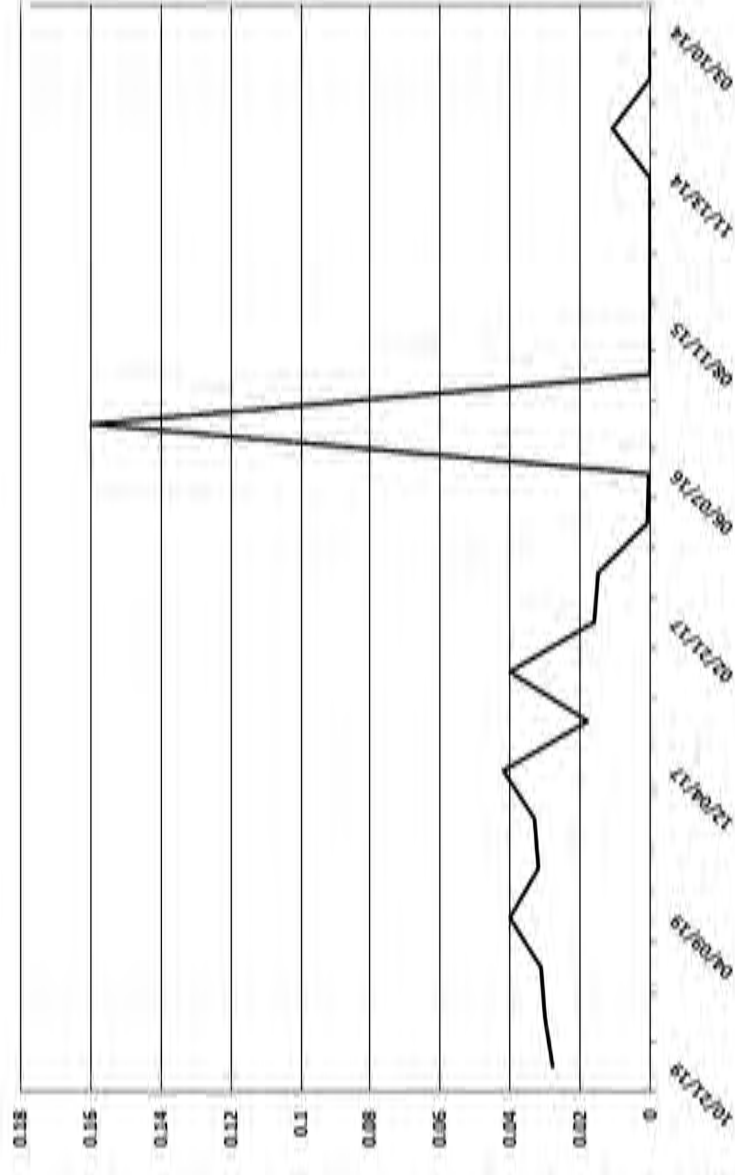
GWM-3 BENZENE - DRY SINCE 2013



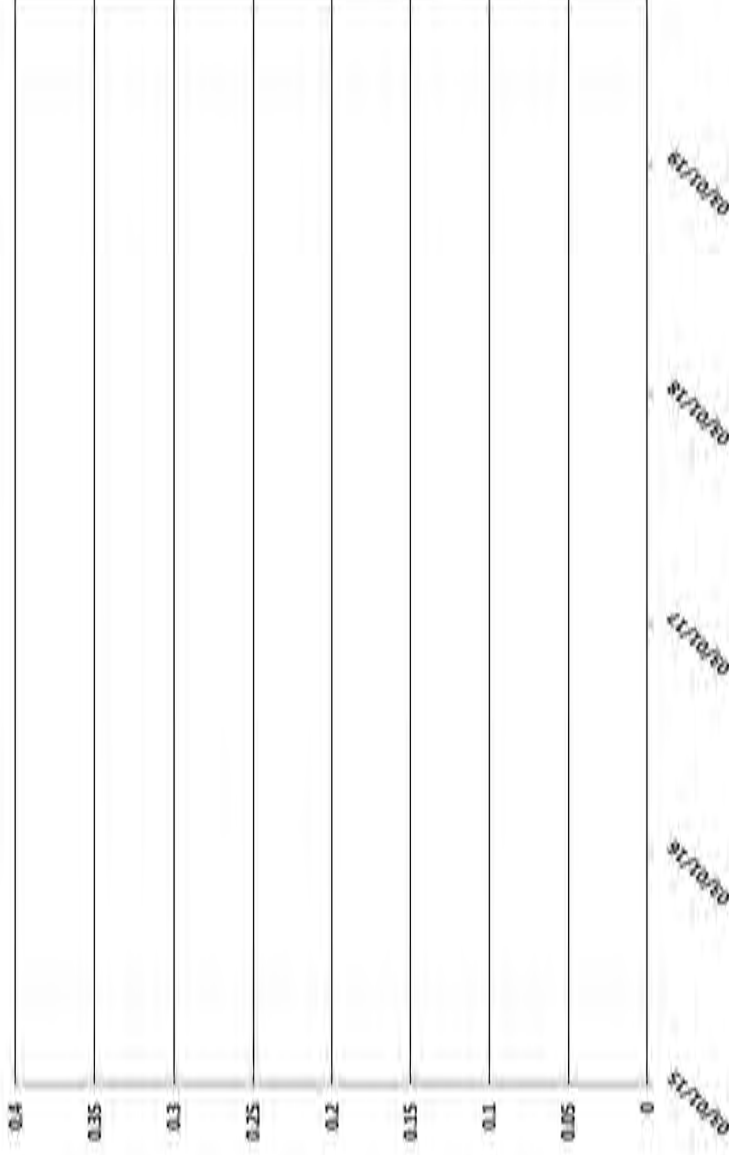
GWM-3 TOLUENE - DRY SINCE 2013



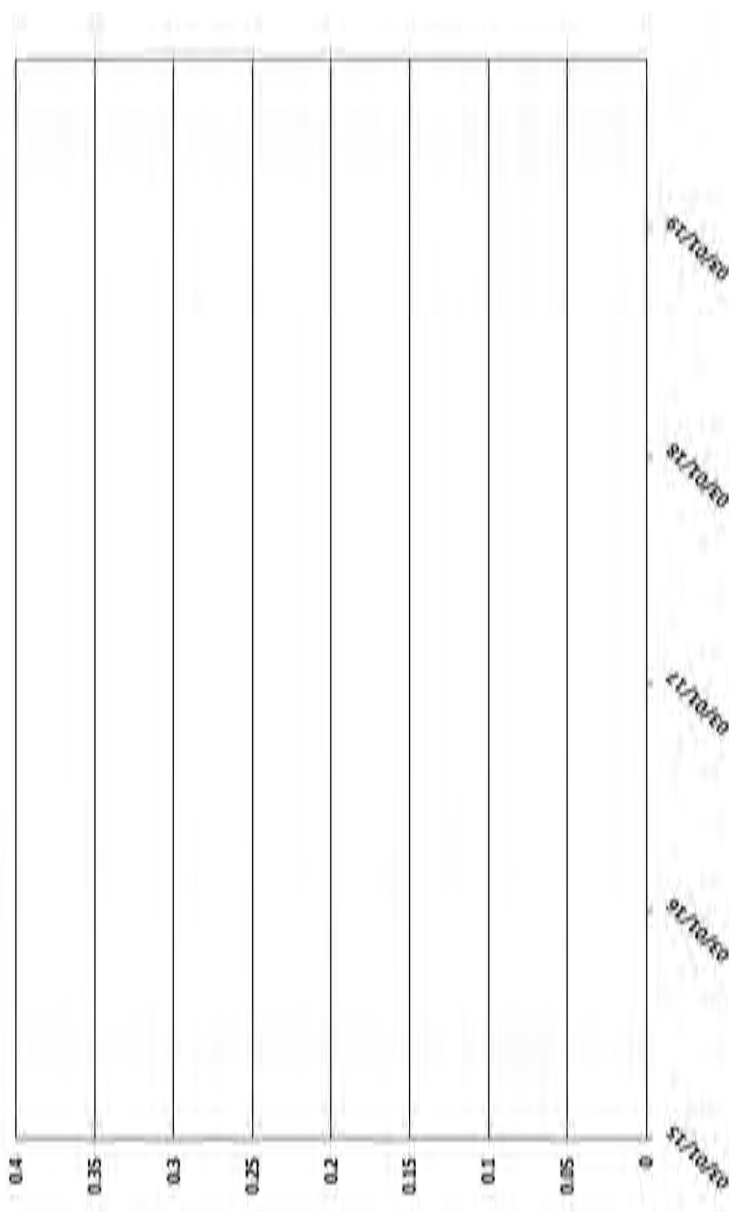
GWM-3 MTBE (mg/L)



GWM-3 ETHYLBENZENE - DRY SINCE 2013



GWM-3 TOTAL XYLENES - DRY SINCE 2013



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Drawn By: REP Checked By: BM

Scale: NONE

Date: 9/15/2020

File: 697-GWMON-2019-FIGS-15.1-15.12

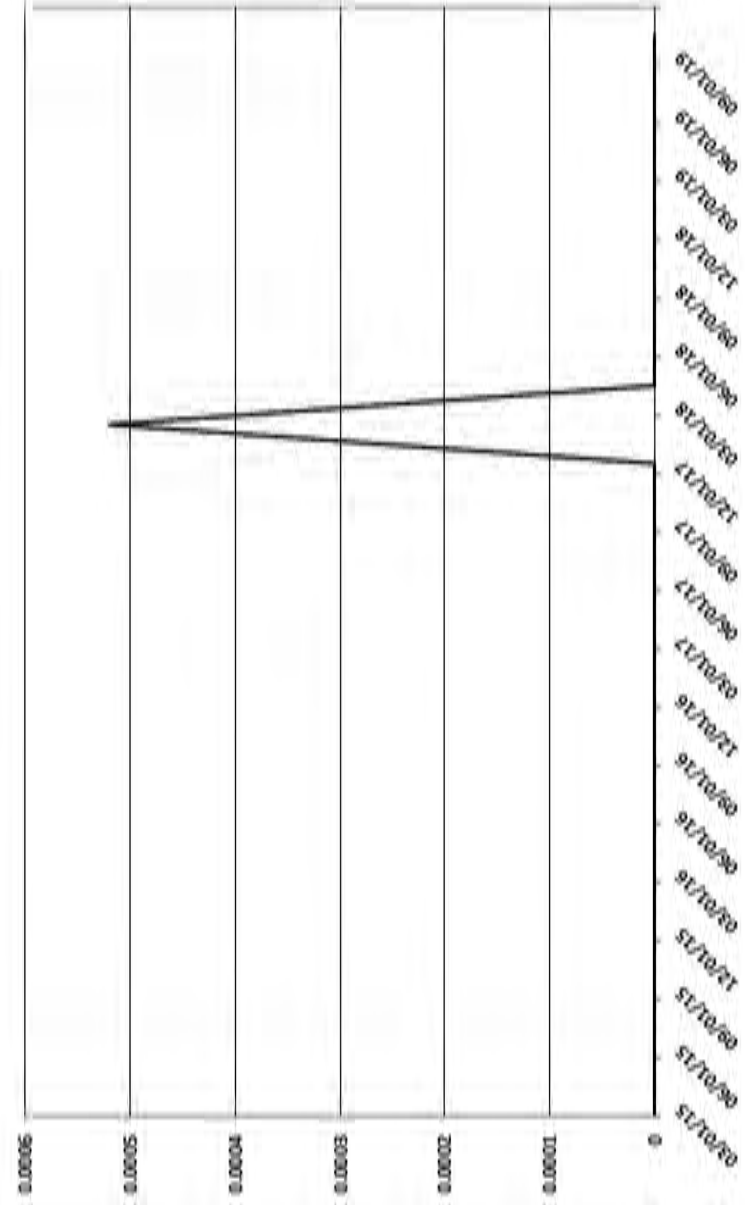
FIGURE 15.8

BTEX & MTBE THROUGH 2019 - WELL GWM-3

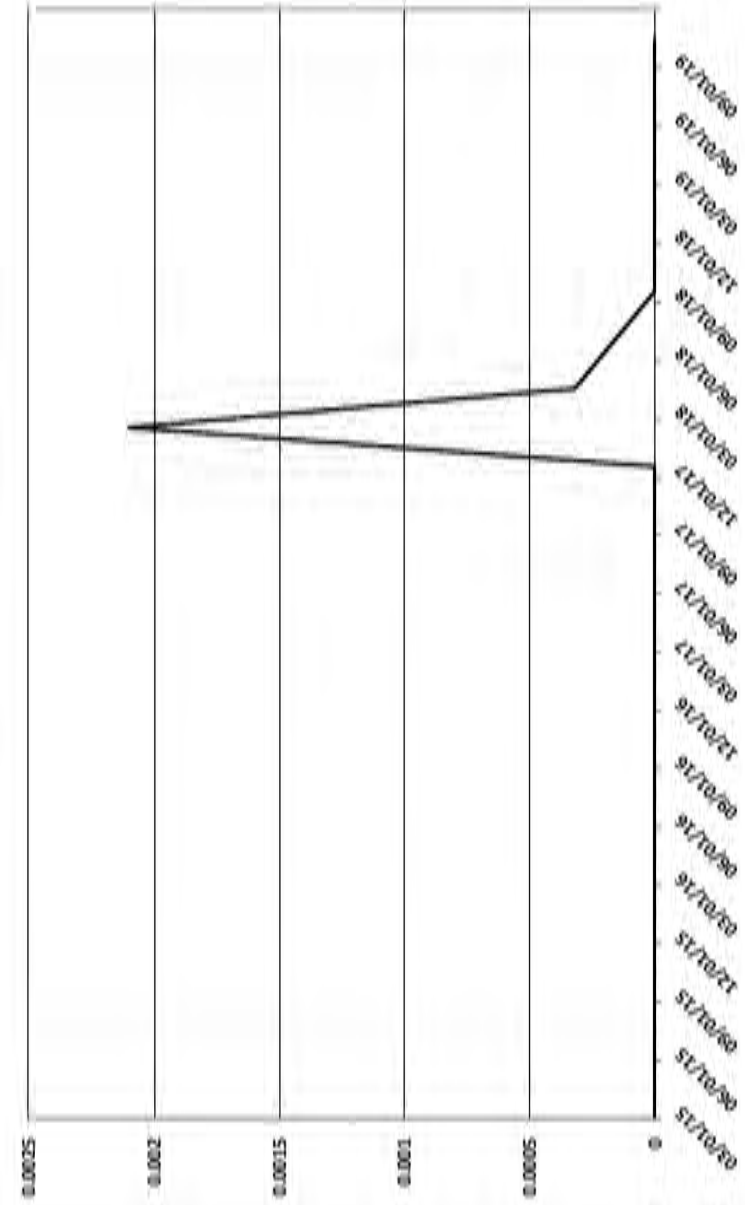
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



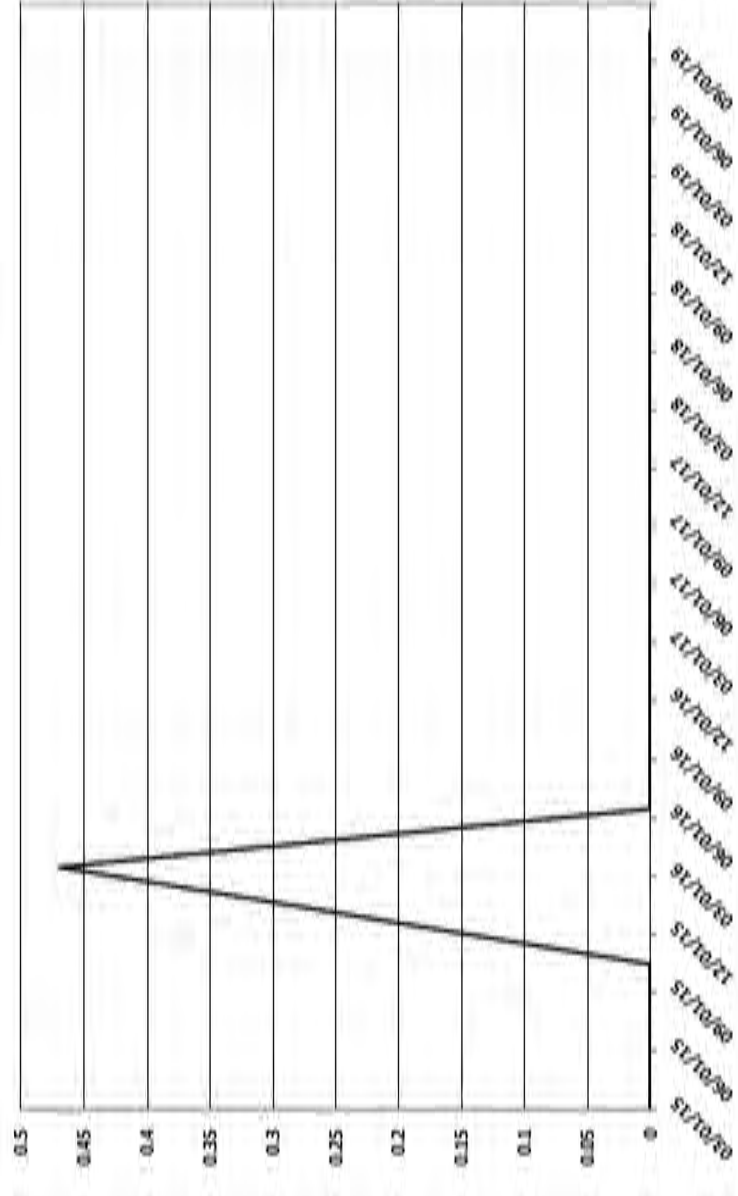
STP1-NW BENZENE (mg/L)



STP1-NW TOLUENE (mg/L)



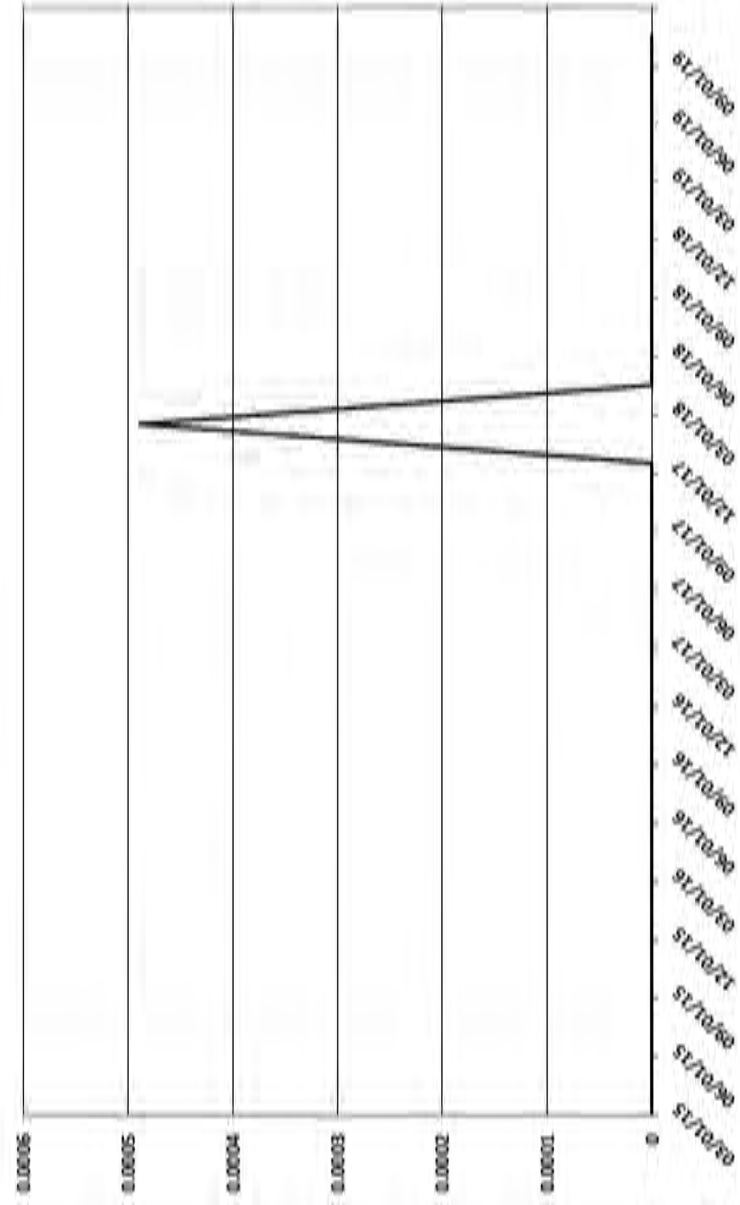
STP1-NW MTBE (mg/L)



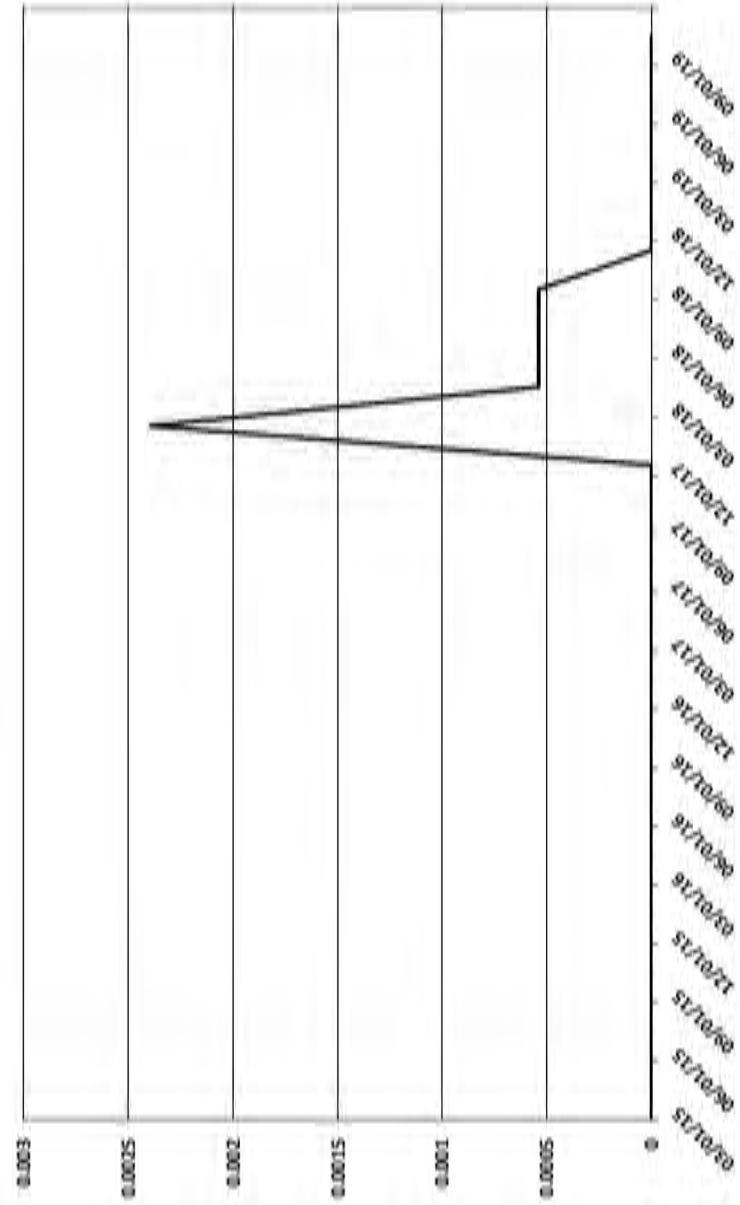
STP1-NW TOTAL XYLENES (mg/L)



STP1-NW ETHYLBENZENE (mg/L)



STP1-NW TOTAL XYLENES (mg/L)





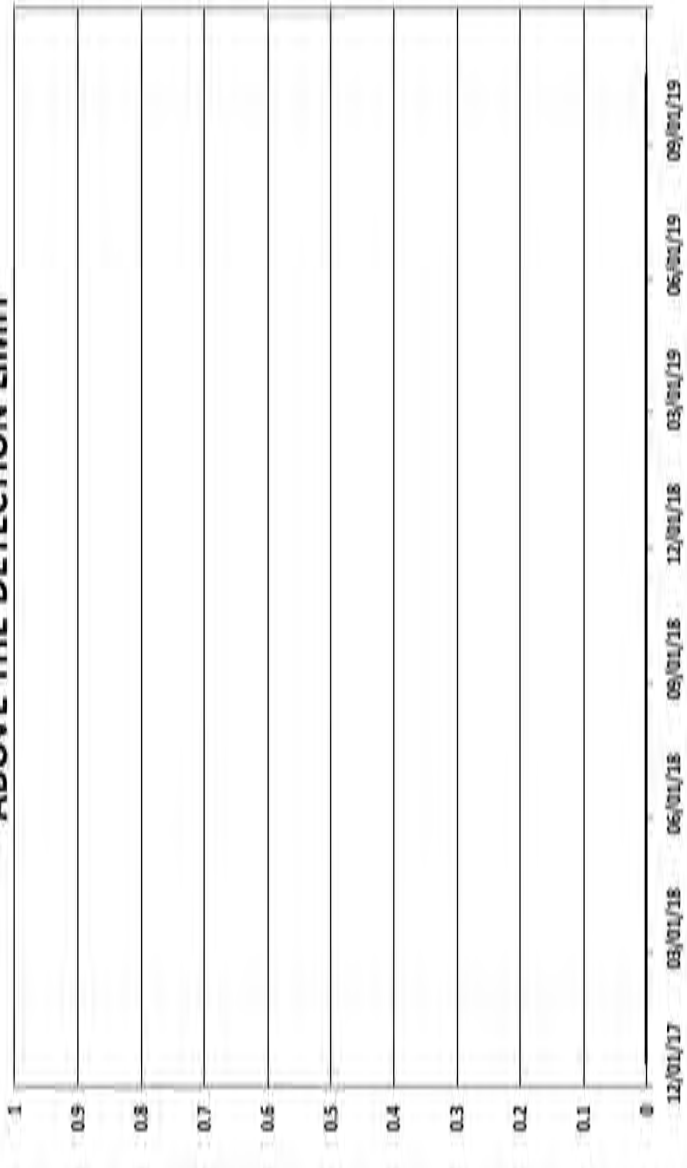
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BTEX & MTBE THROUGH 2019 - WELL STP-1		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-15-1-15.12

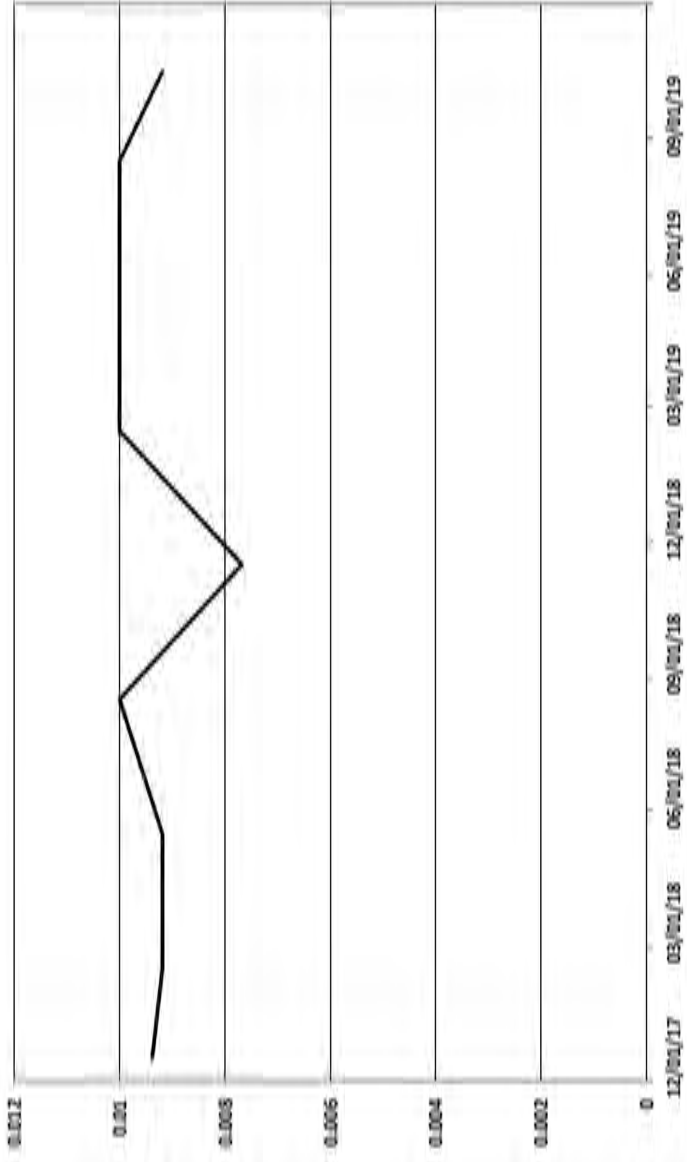
FIGURE 15.9



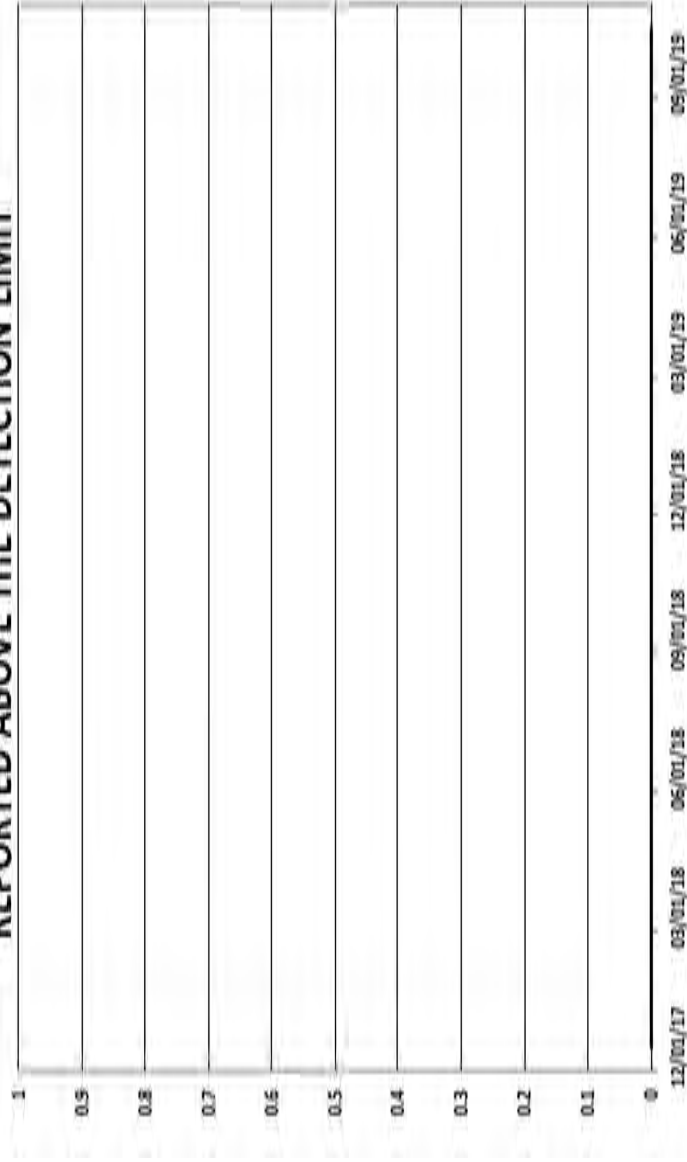
OW-59 BTEX - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



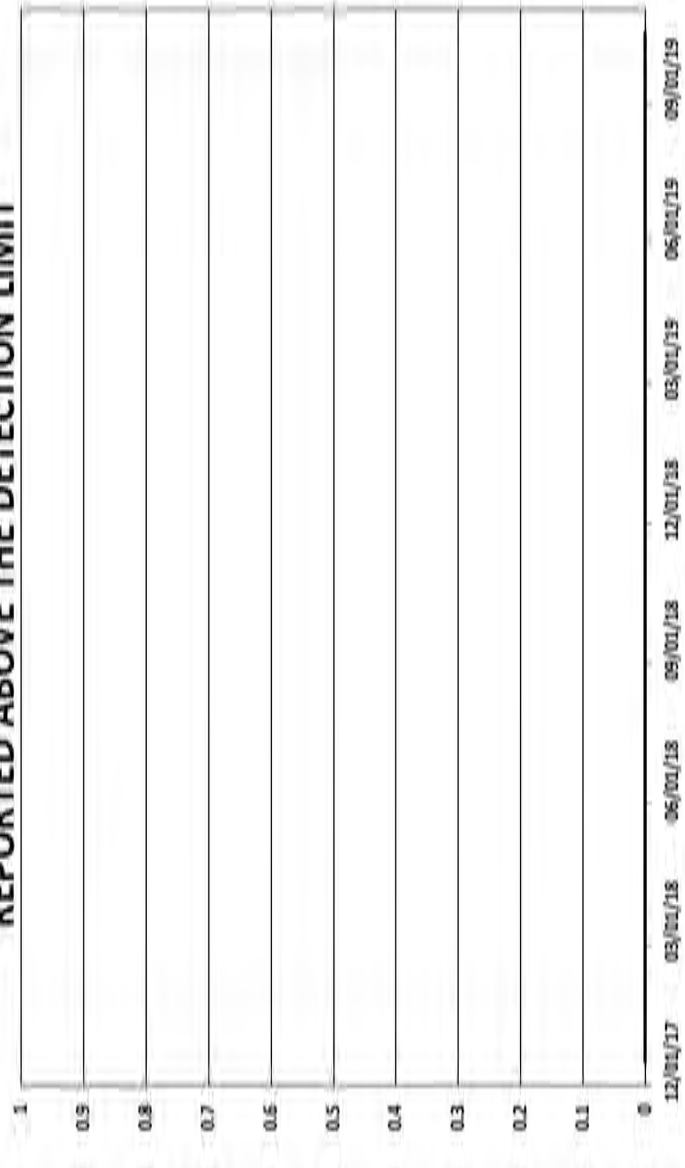
OW-59 MTBE (mg/L)



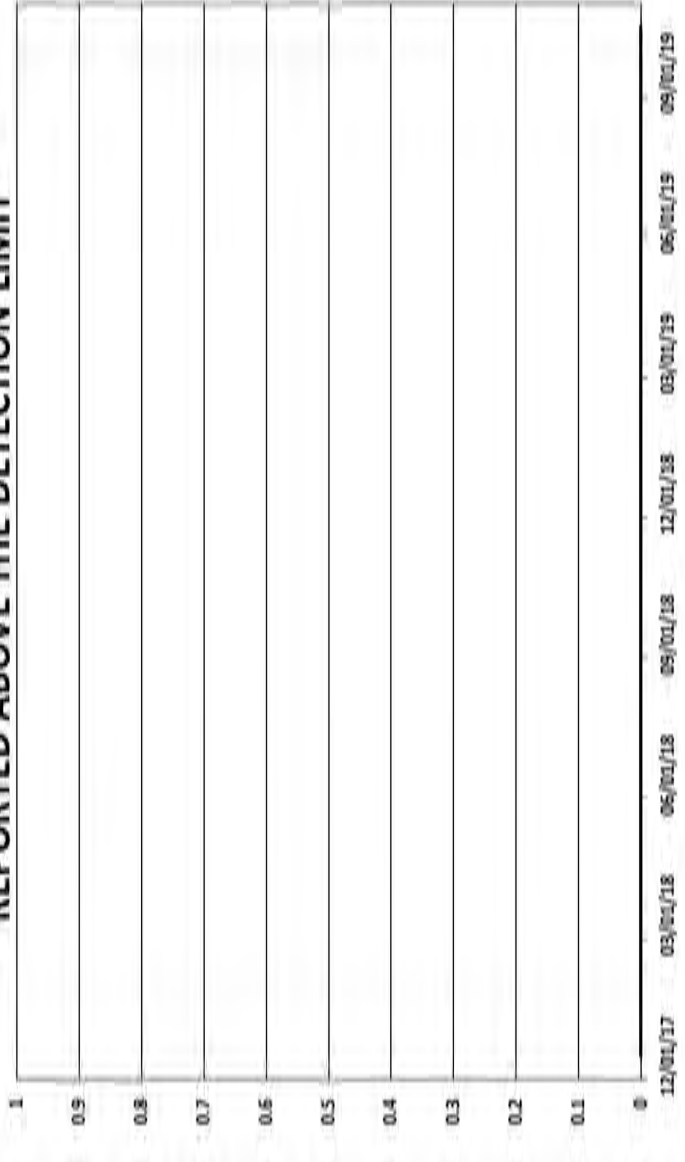
OW-59 TOTAL MTBE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-59 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-59 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



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FIGURE 15.10

BTEX & MTBE THROUGH 2019 - WELL OW-59

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM

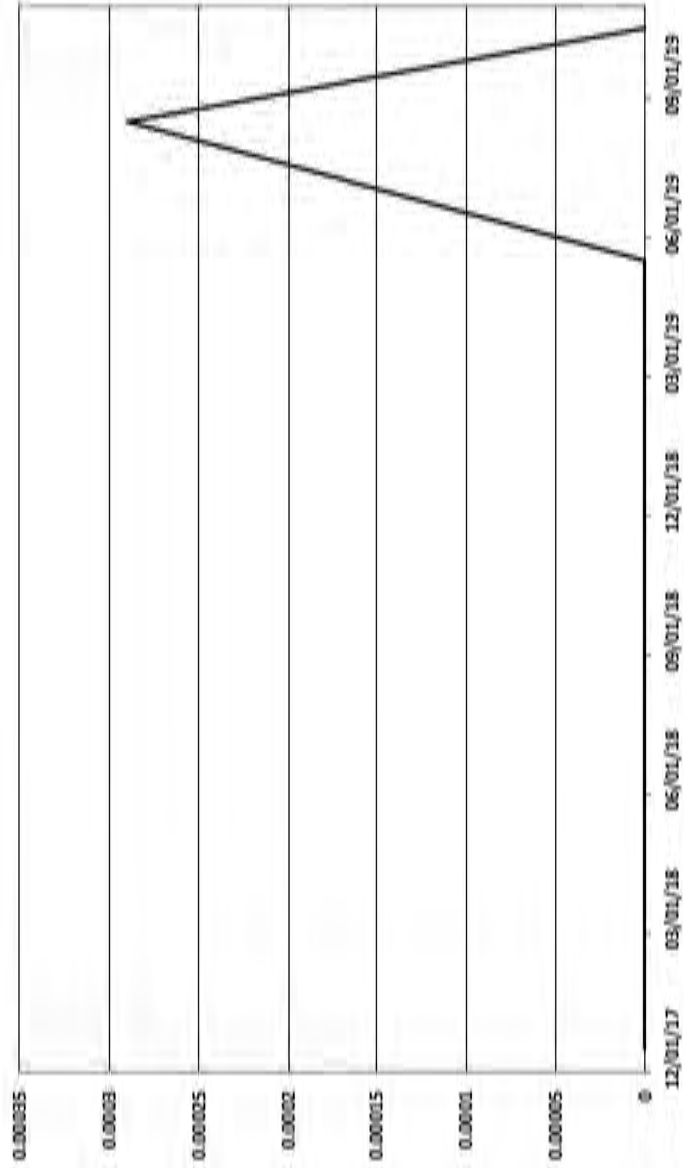
Scale: NONE

Date: 9/15/2020

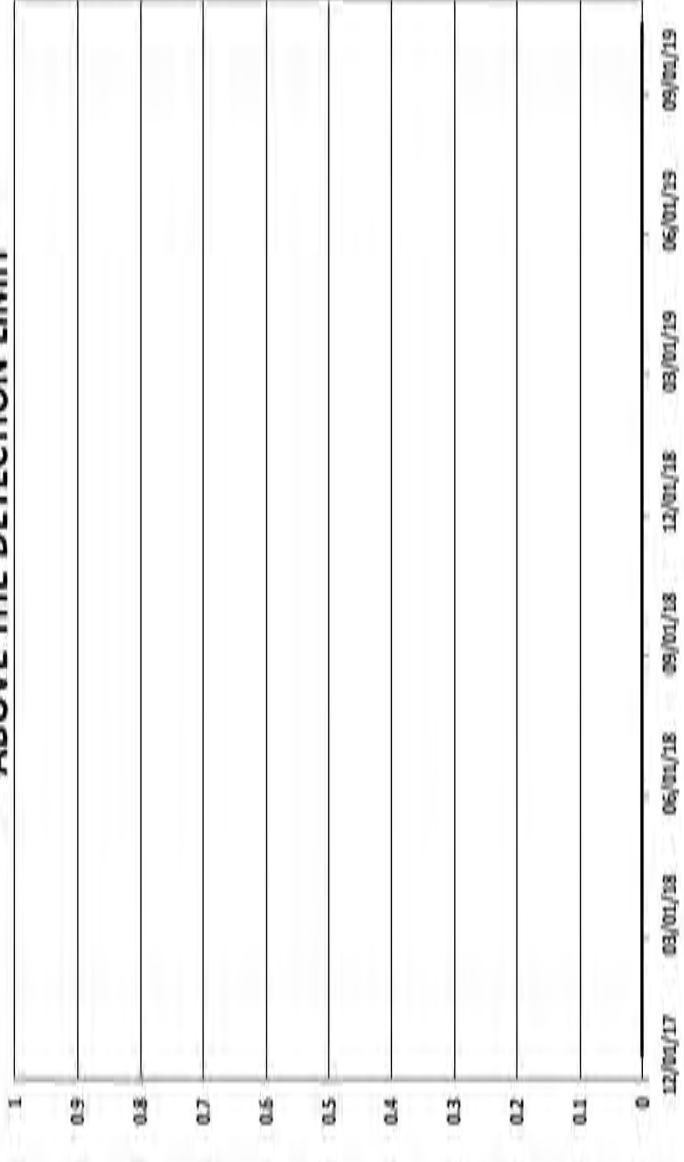
File: 697-GWMON-2019-FGS-15.1-15.12



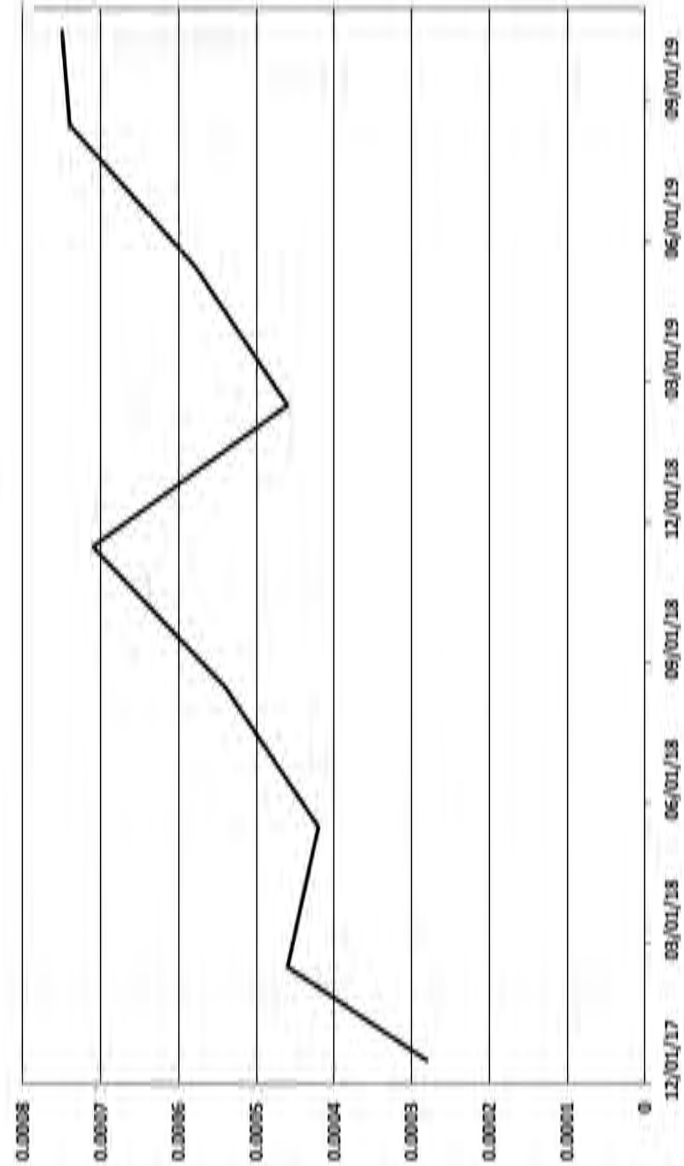
OW-60 BENZENE (mg/L)



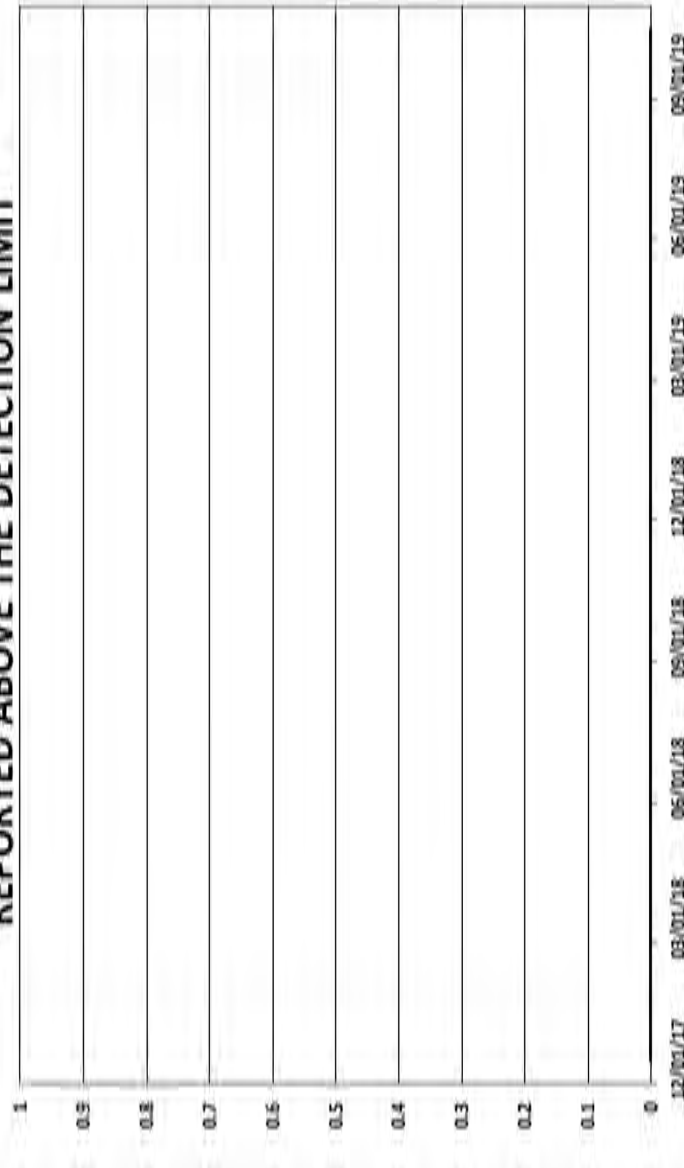
OW-60 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



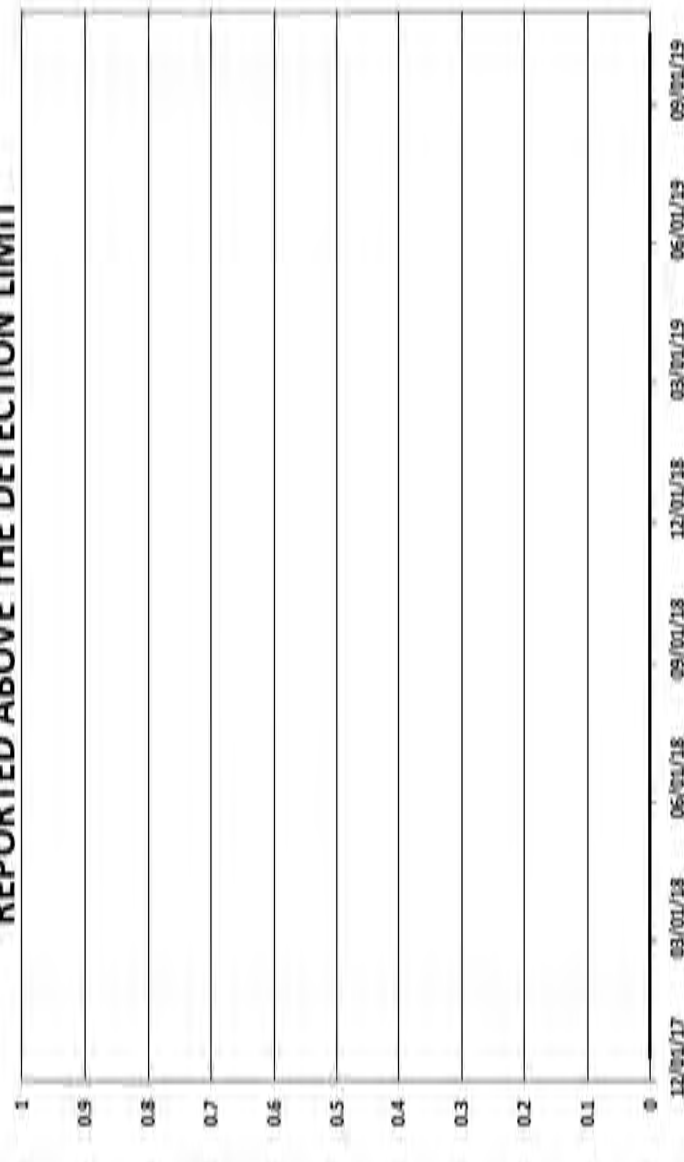
OW-60 MTBE (mg/L)



OW-60 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-60 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





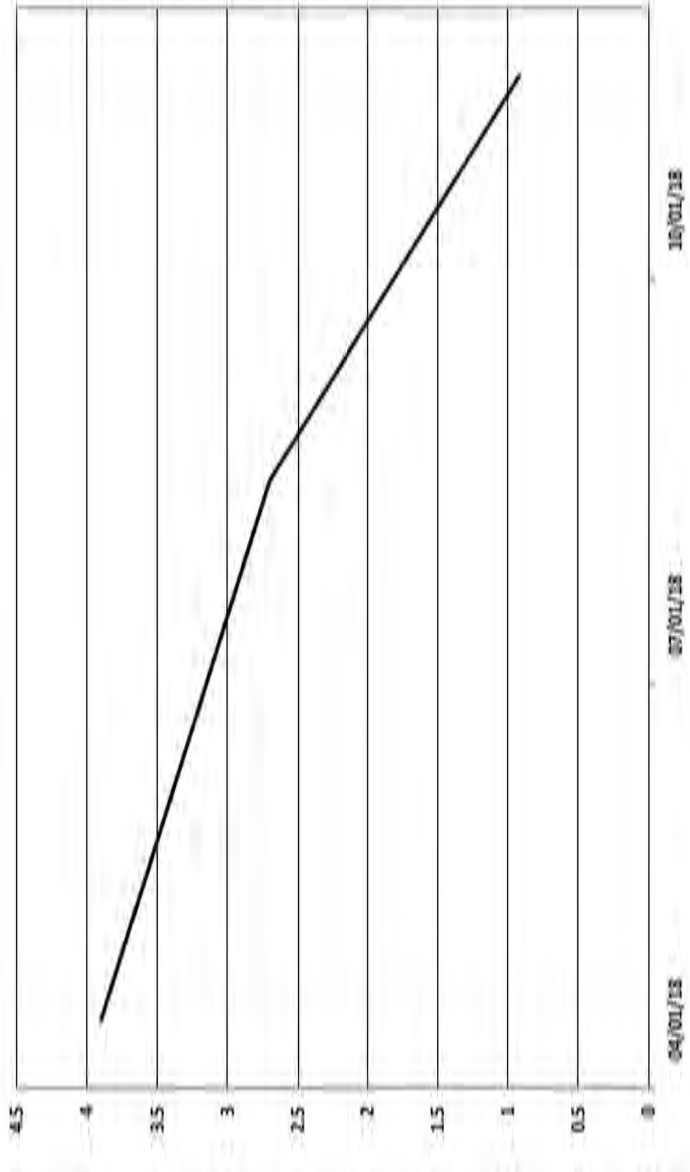
**Trihydro**  
CORPORATION  
1252 Commerce Drive  
Laramie, Wyoming 82070  
Phone: 307.745.7424 Fax: 307.745.7729

BTEX & MTBE THROUGH 2019 - WELL OW-60		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FGS-15-1-15.12

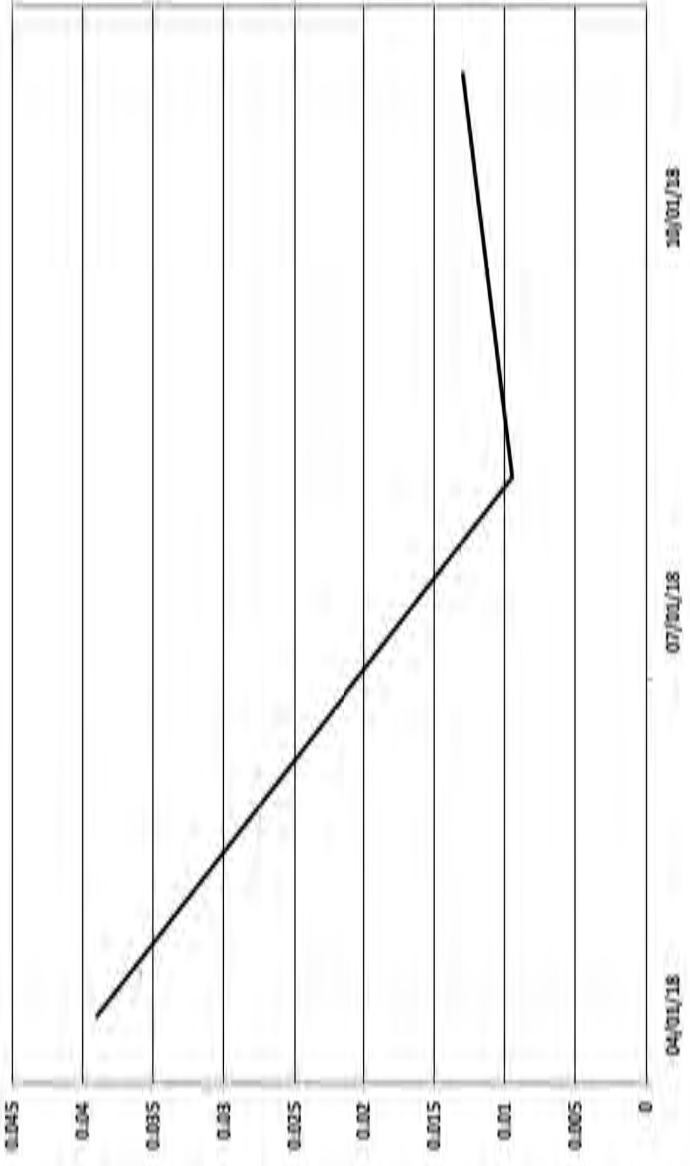
FIGURE 15.11



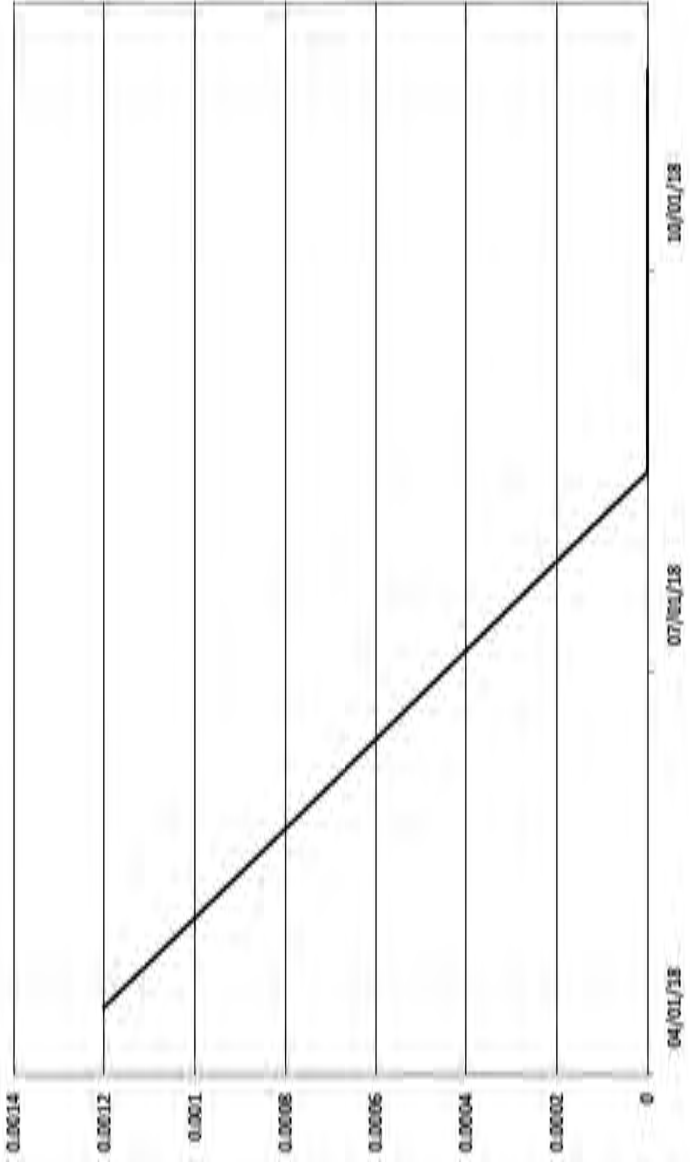
OW-62 BENZENE (mg/L)



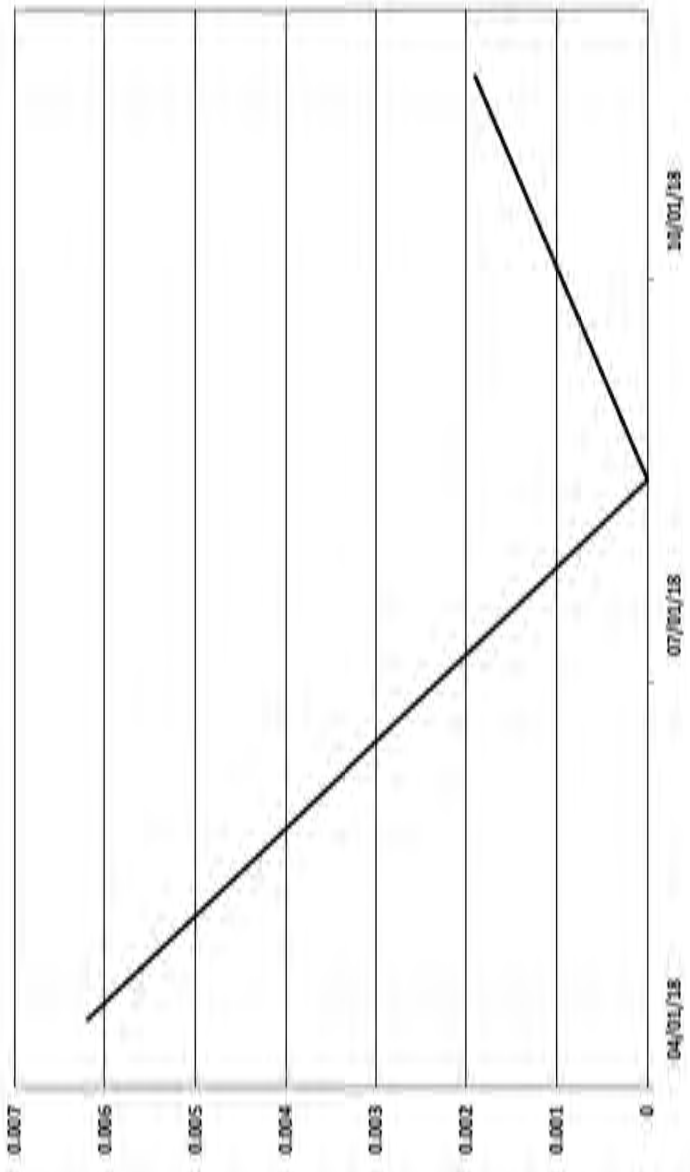
OW-62 TOLUENE (mg/L)



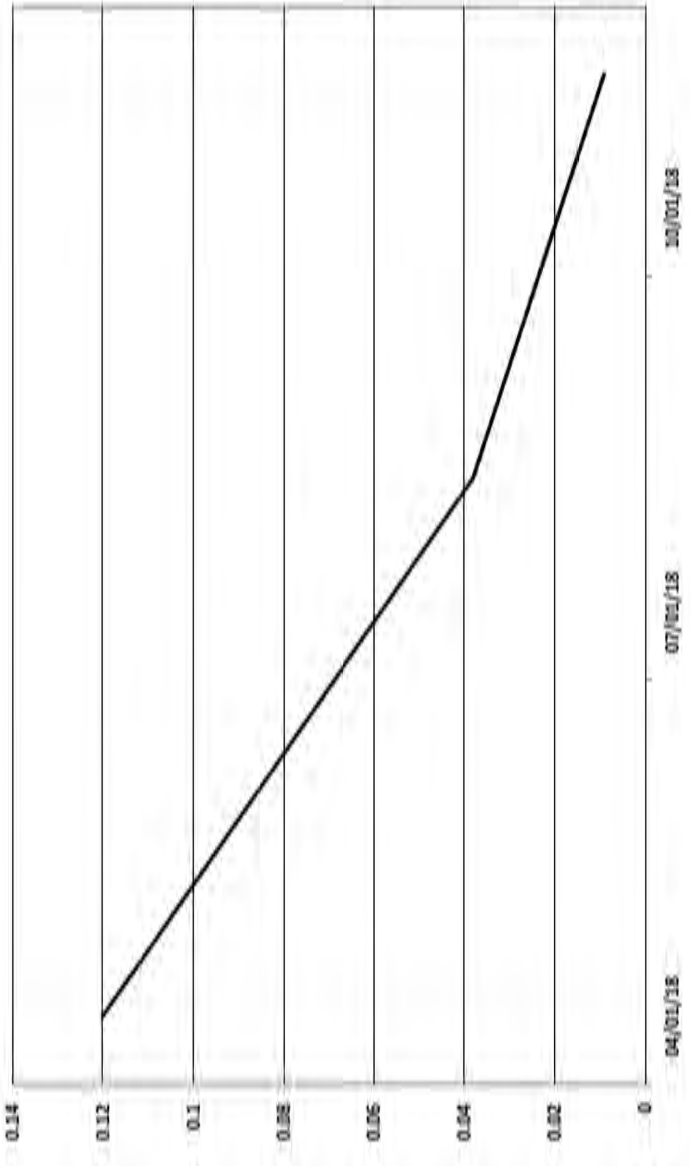
OW-62 MTBE (mg/L)



OW-62 ETHYLBENZENE (mg/L)



OW-62 TOTAL XYLENES (mg/L)





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BTEX & MTBE THROUGH 2019 - WELL OW-62

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

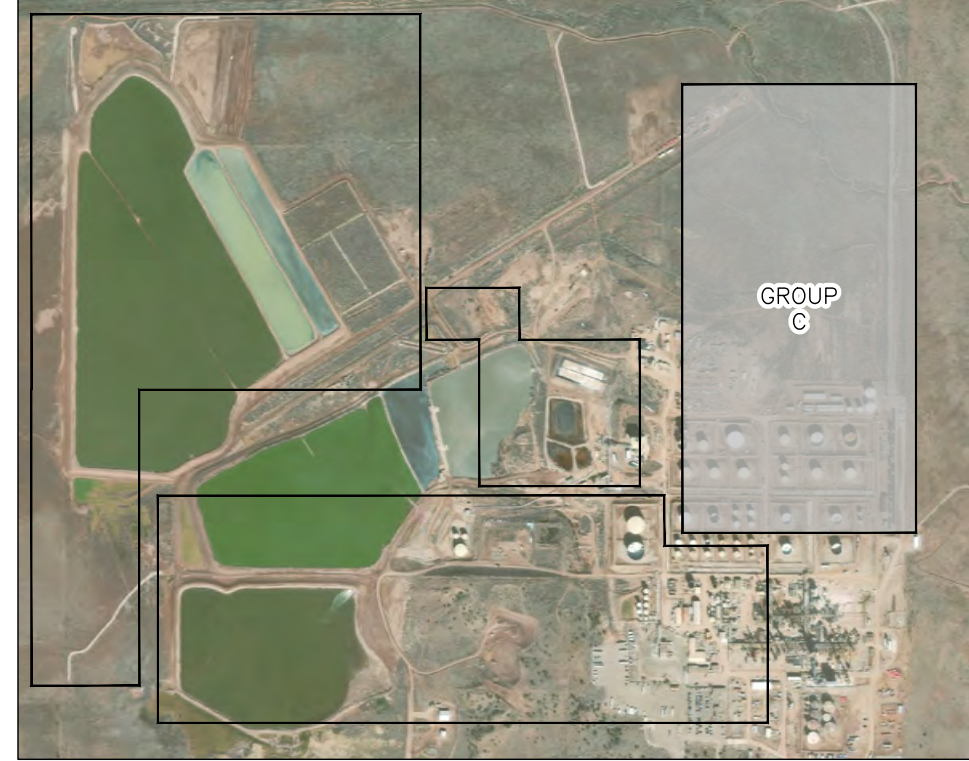
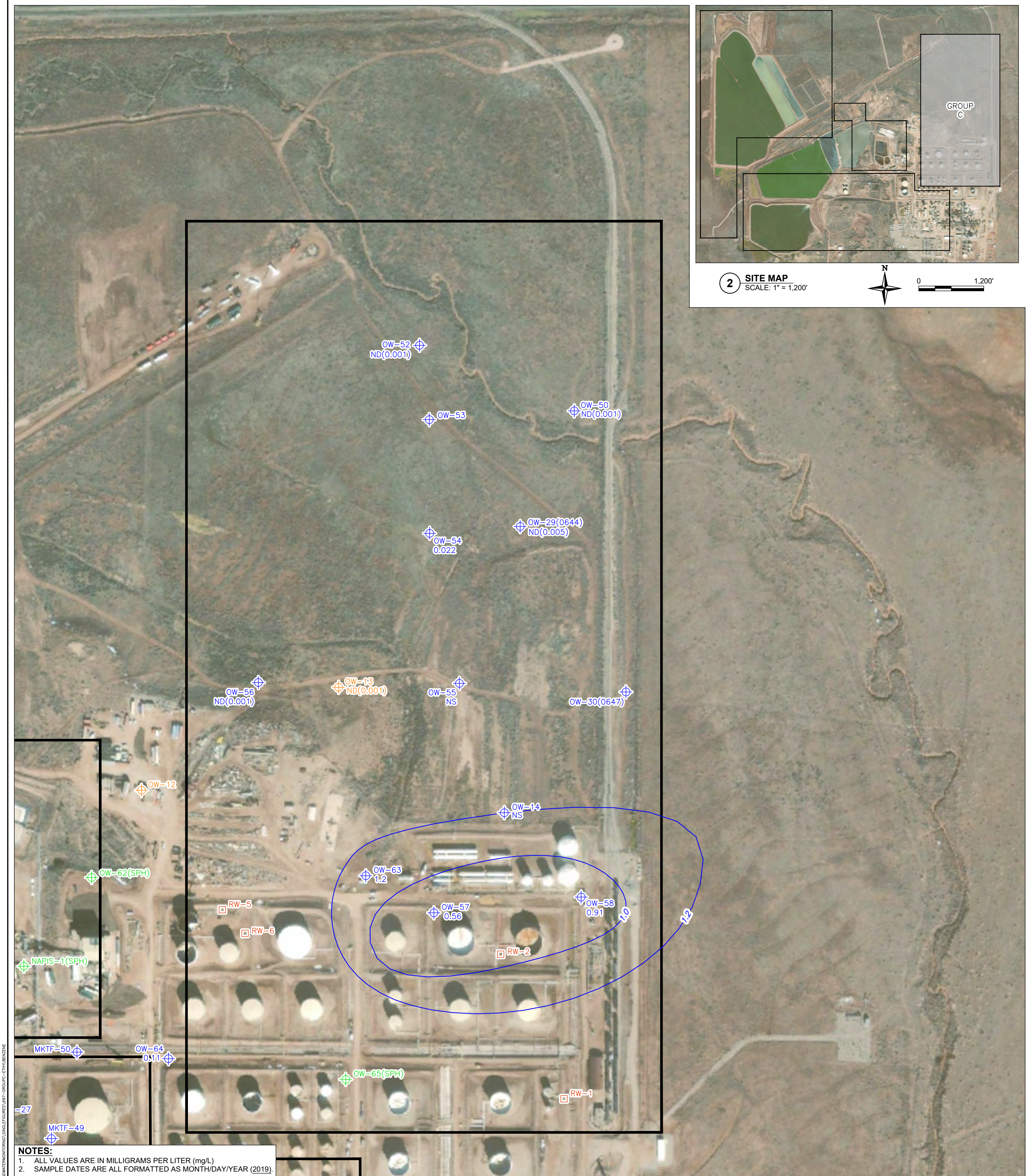
Drawn By: REP Checked By: BM Scale: NONE Date: 9/15/2020 File: 697-GWMON-2019-FIGS-15-1-15.12

FIGURE 15.12









2 SITE MAP  
SCALE: 1" = 1,200'



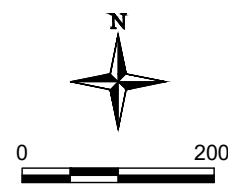
0 1,200'

NOTES:  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).

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

EXPLANATION

- OW-10 SONSELA WELL AND DESIGNATION
- OW-11 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- MKTF-45 SPH MONITORING WELL AND DESIGNATION
- RW-6 RECOVERY WELL AND DESIGNATION
- SPH SINGLE-PHASE HYDROCARBON
- NS NOT SAMPLED



0 200'

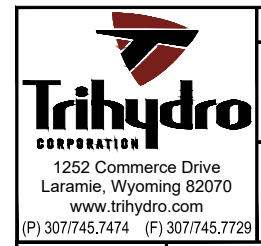
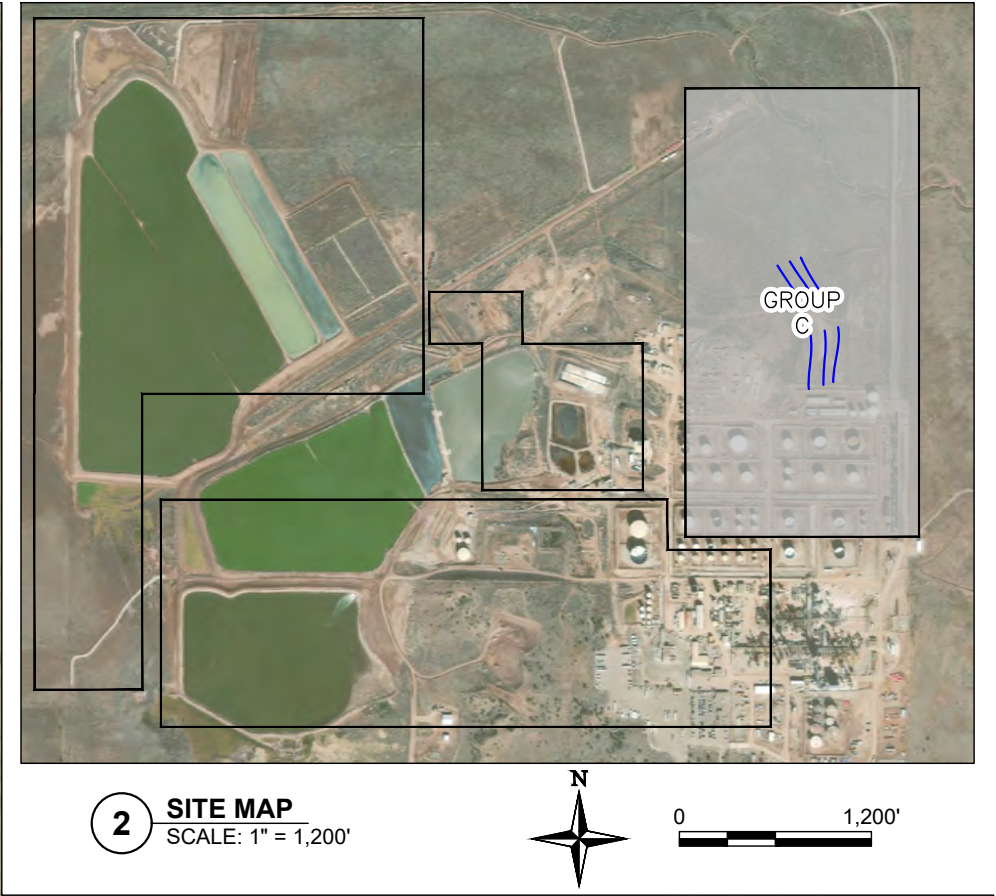
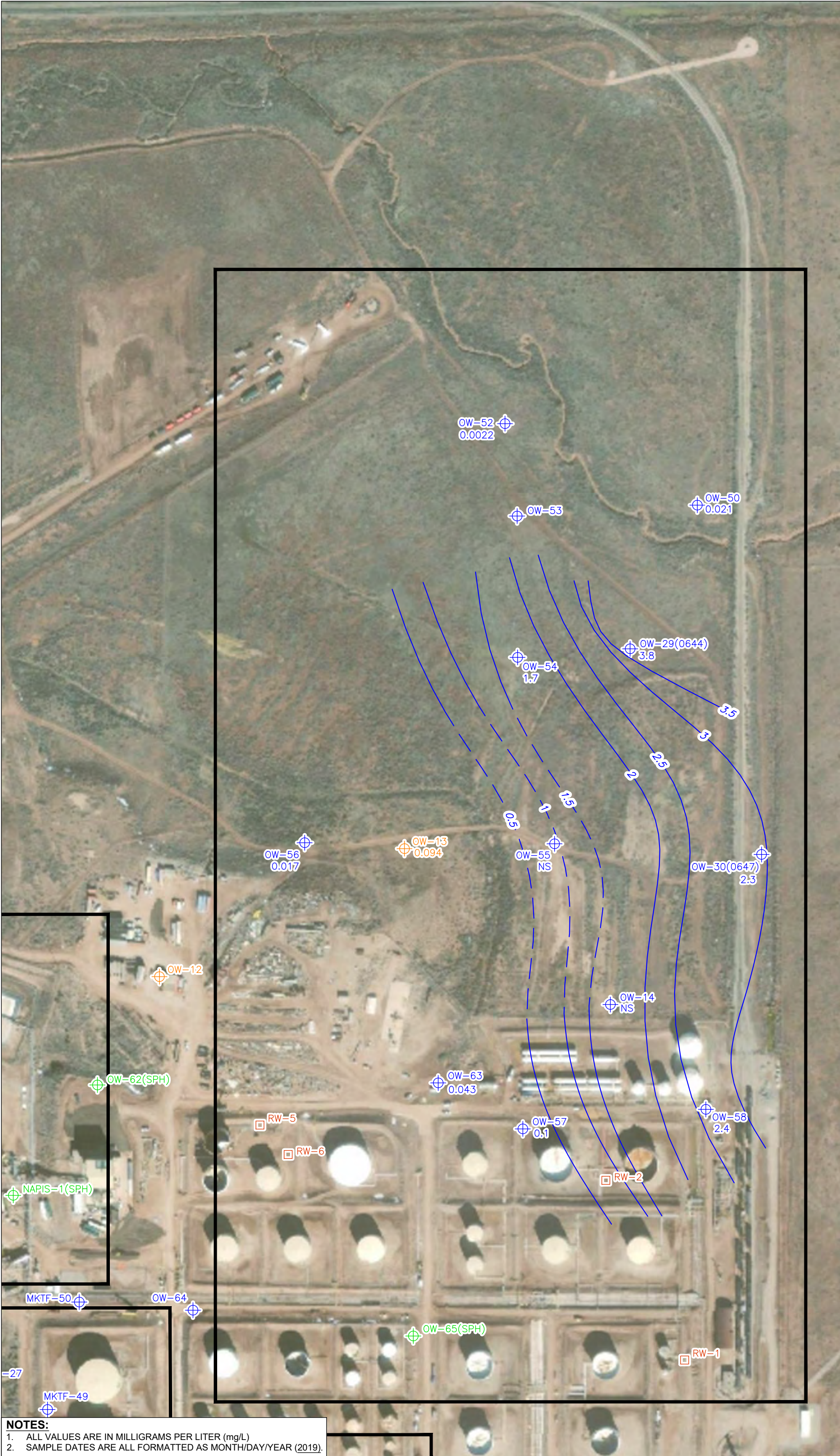


FIGURE 16B			
GROUP C ETHYLBENZENE RESULTS (AUGUST 2019)			
MARATHON PETROLEUM CORP. GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 200'	Date: 9/4/20
File: 697-GROUPC-ETHYLBENZENE			



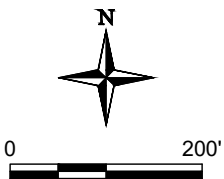


**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).

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

**EXPLANATION**

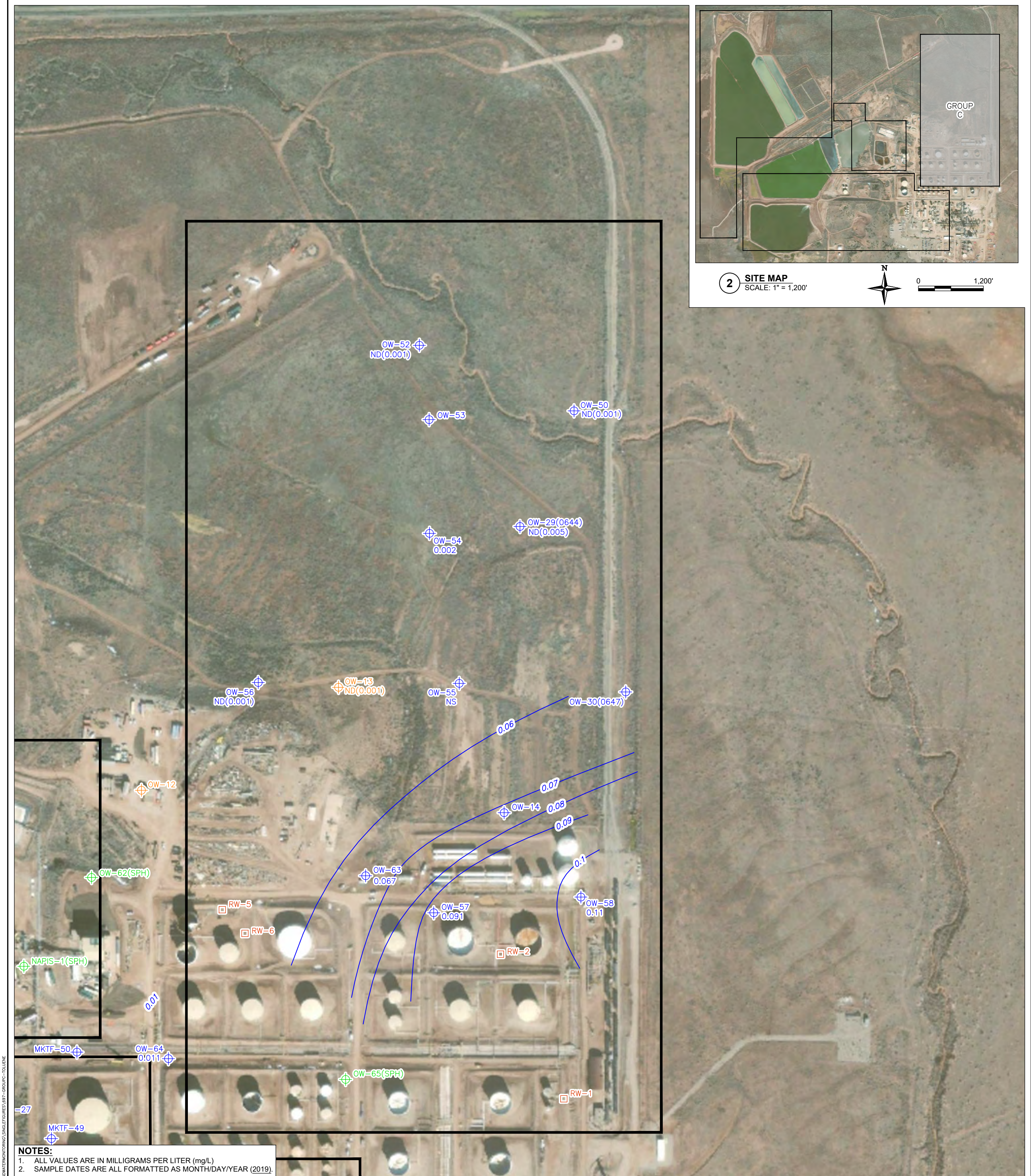
- OW-10 SONSELA WELL AND DESIGNATION
- OW-11 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- MKTF-45 SPH MONITORING WELL AND DESIGNATION
- RW-6 RECOVERY WELL AND DESIGNATION
- SPH SINGLE-PHASE HYDROCARBON
- NS NOT SAMPLED



**FIGURE 16C**  
**GROUP C MTBE RESULTS (AUGUST 2019)**  
**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**

Drawn By: REP | Checked By: CF | Scale: 1" = 200' | Date: 9/9/20 | File: 697-GROUPC-MTBE



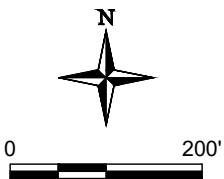


**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).

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

**EXPLANATION**

- OW-10 SONSELA WELL AND DESIGNATION
- OW-11 CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- MKTF-45 SPH MONITORING WELL AND DESIGNATION
- RW-6 RECOVERY WELL AND DESIGNATION
- SPH SINGLE-PHASE HYDROCARBON
- NS NOT SAMPLED



**FIGURE 16D**  
**GROUP C TOLUENE RESULTS (AUGUST 2019)**  
**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**

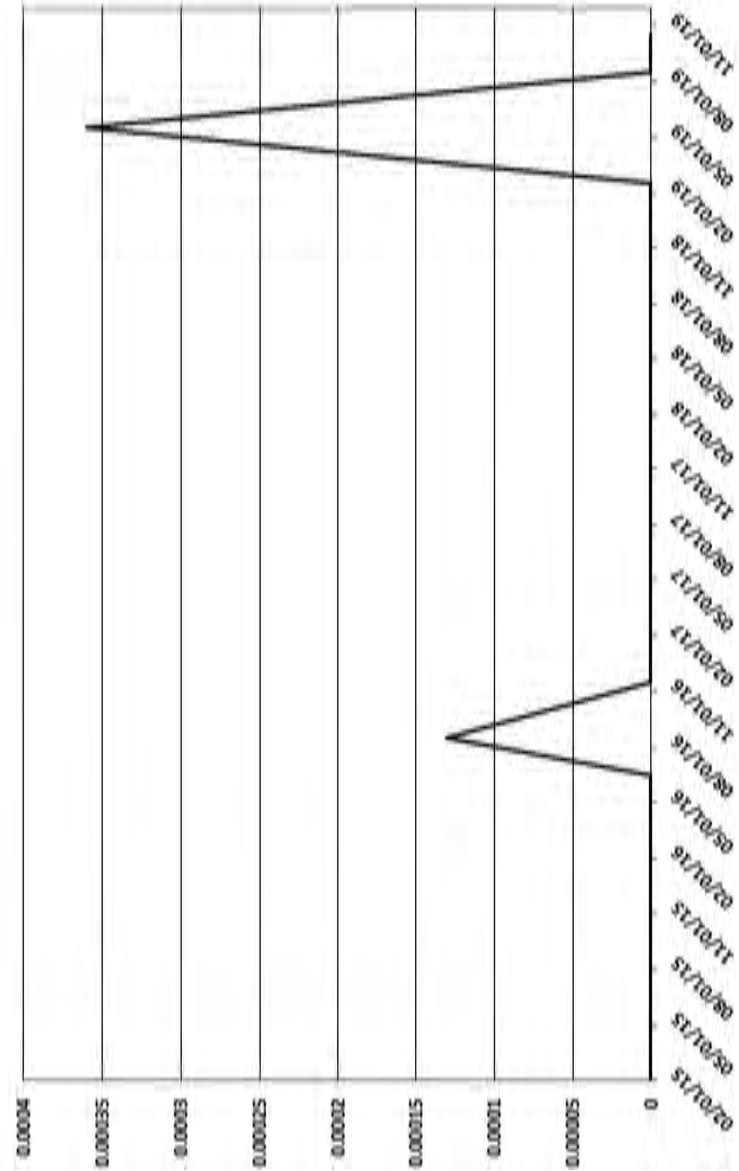
Drawn By: REP | Checked By: CF | Scale: 1" = 200' | Date: 9/4/20 | File: 697-GROUPC-TOLUENE



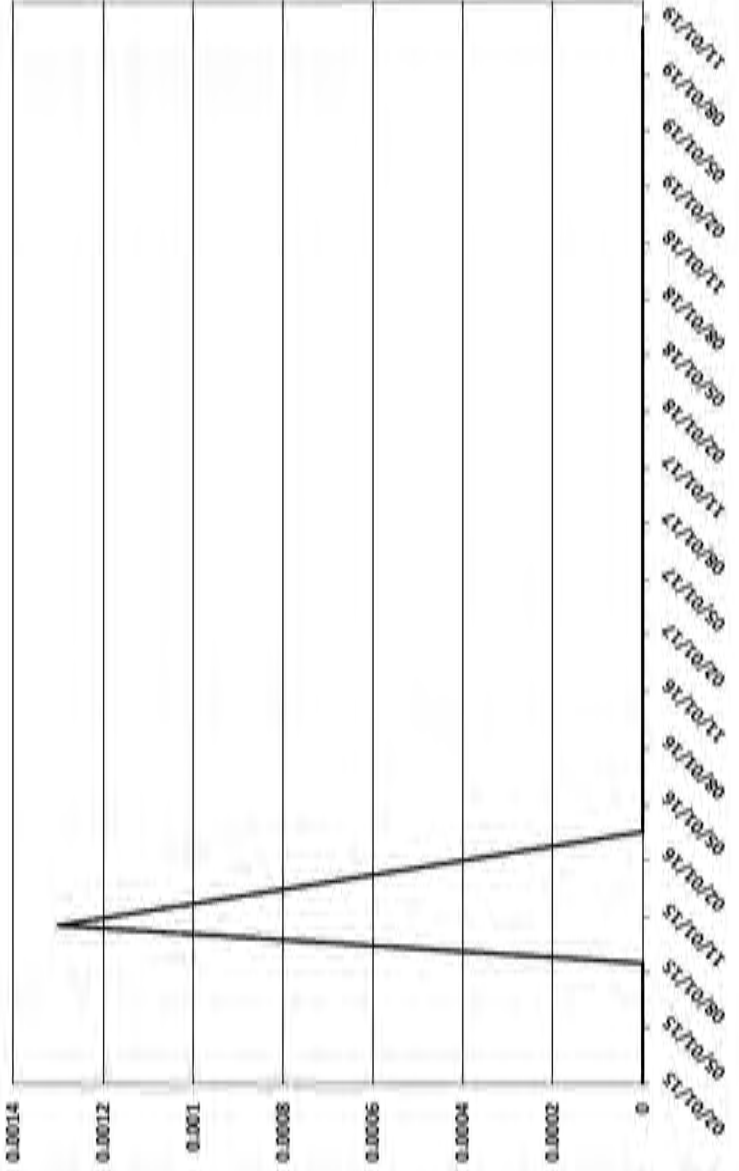




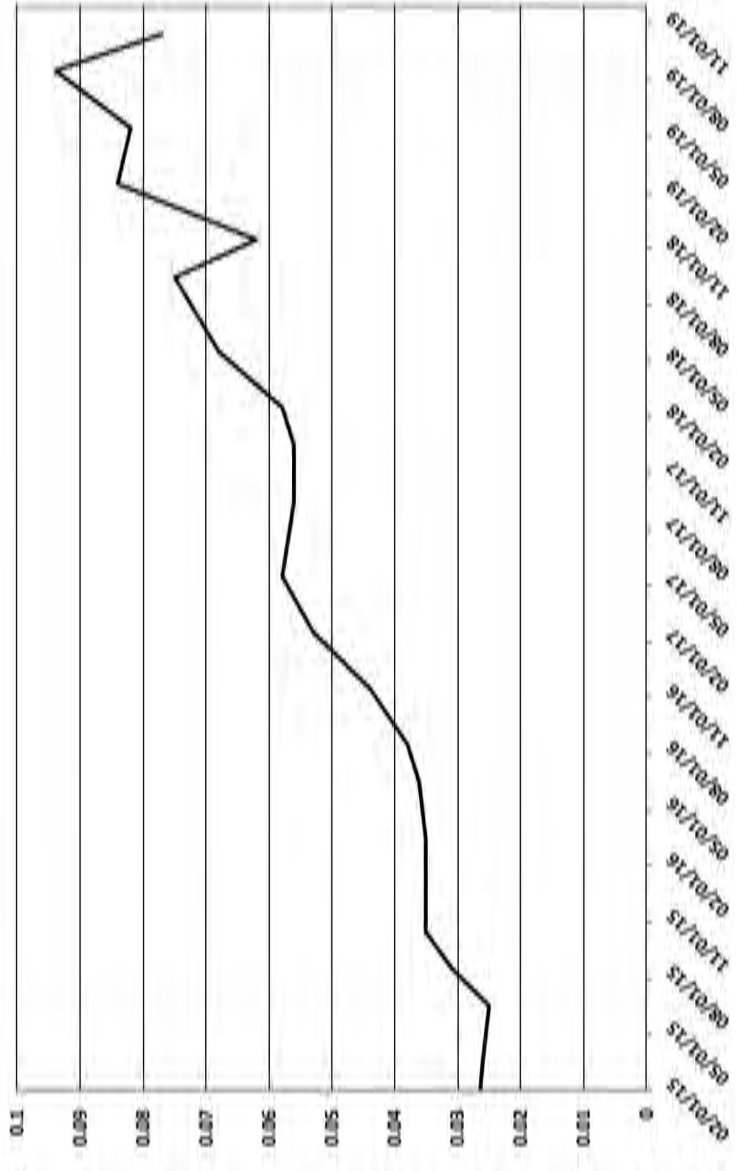
OW-13 BENZENE (mg/L)



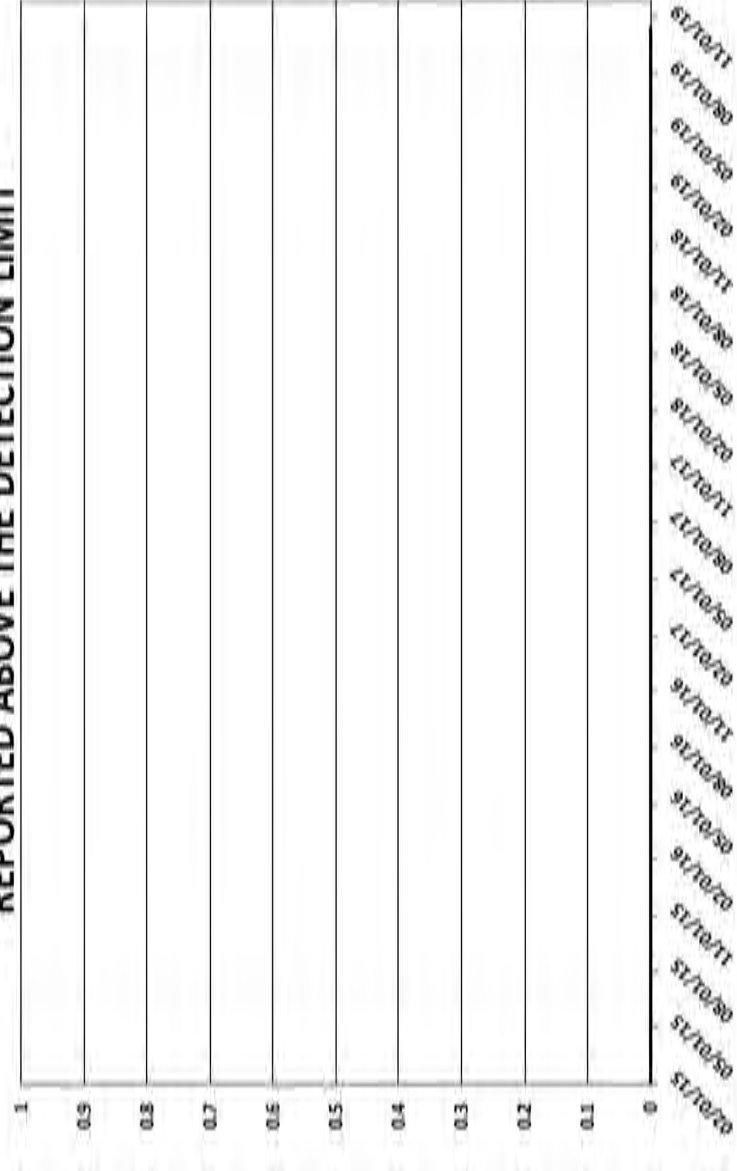
OW-13 TOLUENE (mg/L)



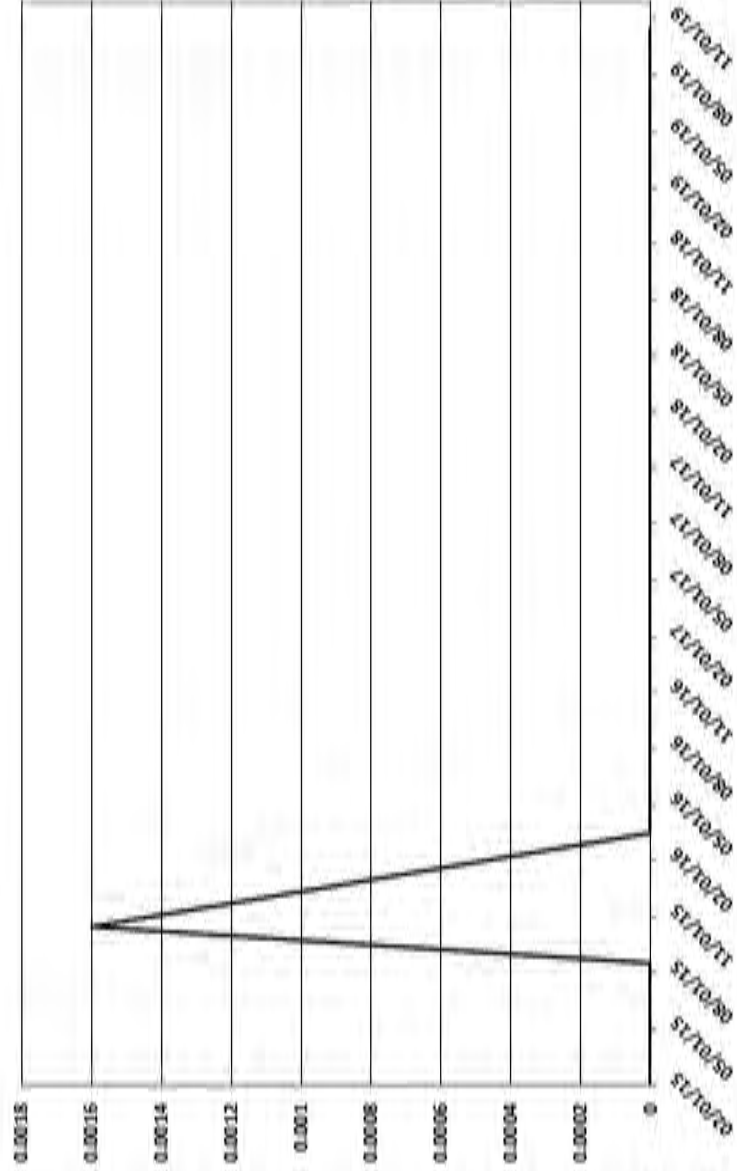
OW-13 MTBE (mg/L)



OW-13 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



OW-13 TOTAL XYLENES (mg/L)





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**FIGURE 16.1**

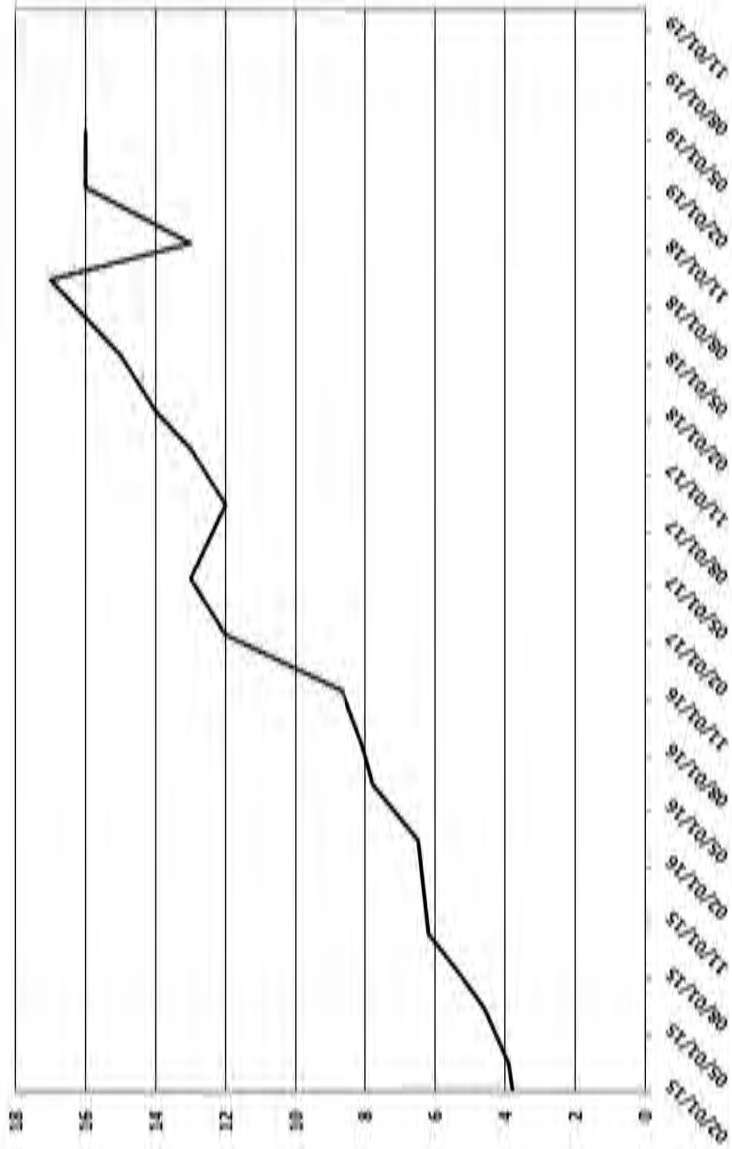
**BTEX & MTBE THROUGH 2019 - WELL OW-13**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

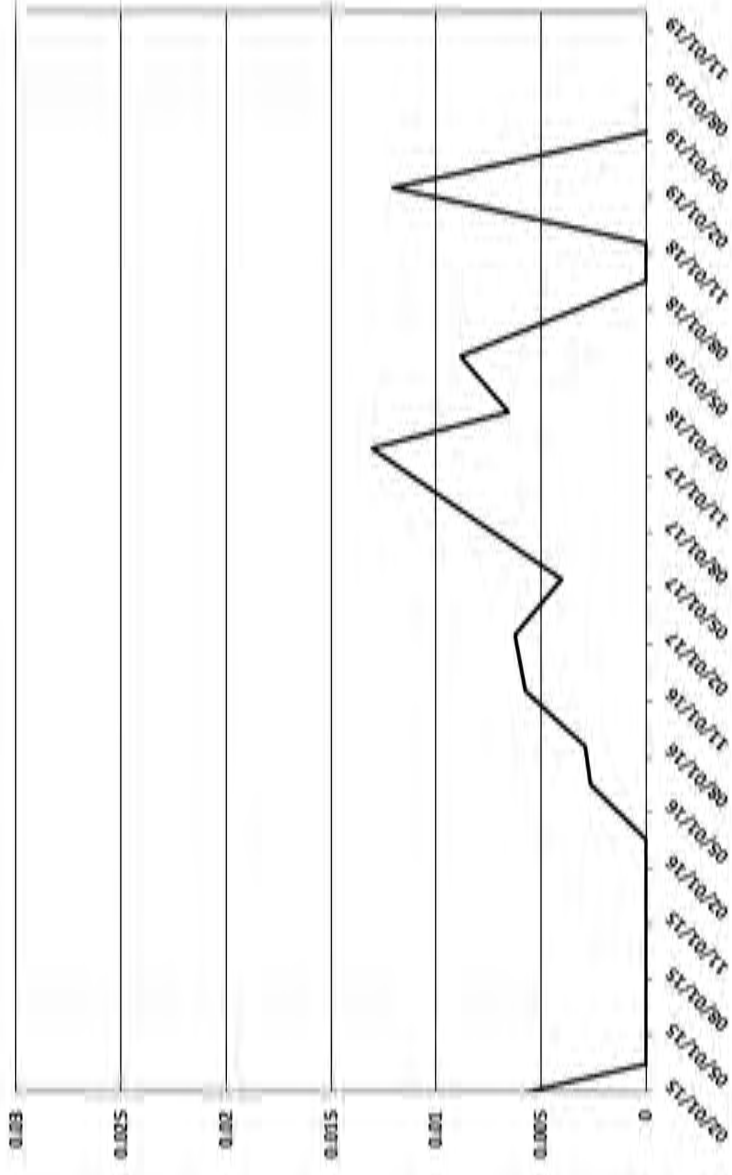
Drawn By: REP | Checked By: BM | Date: 9/15/2020 | File: 697-GWMON-2019-FIGS-16.1-16.14



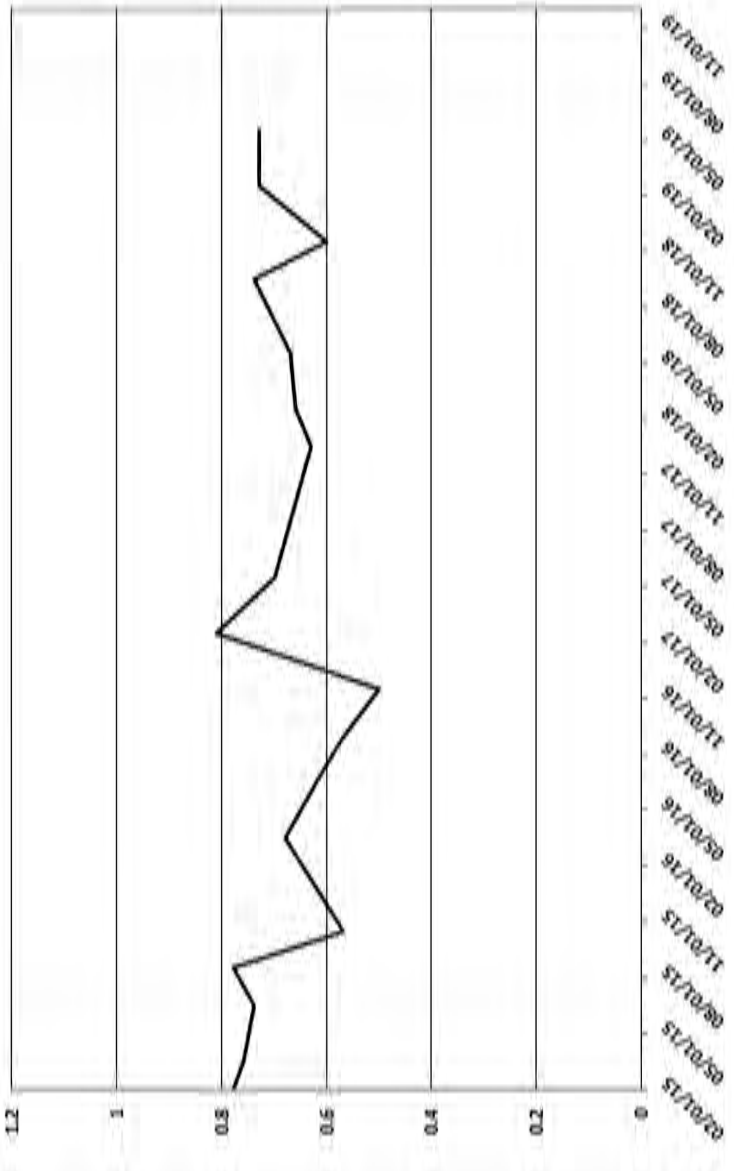
OW-14 BENZENE (mg/L)



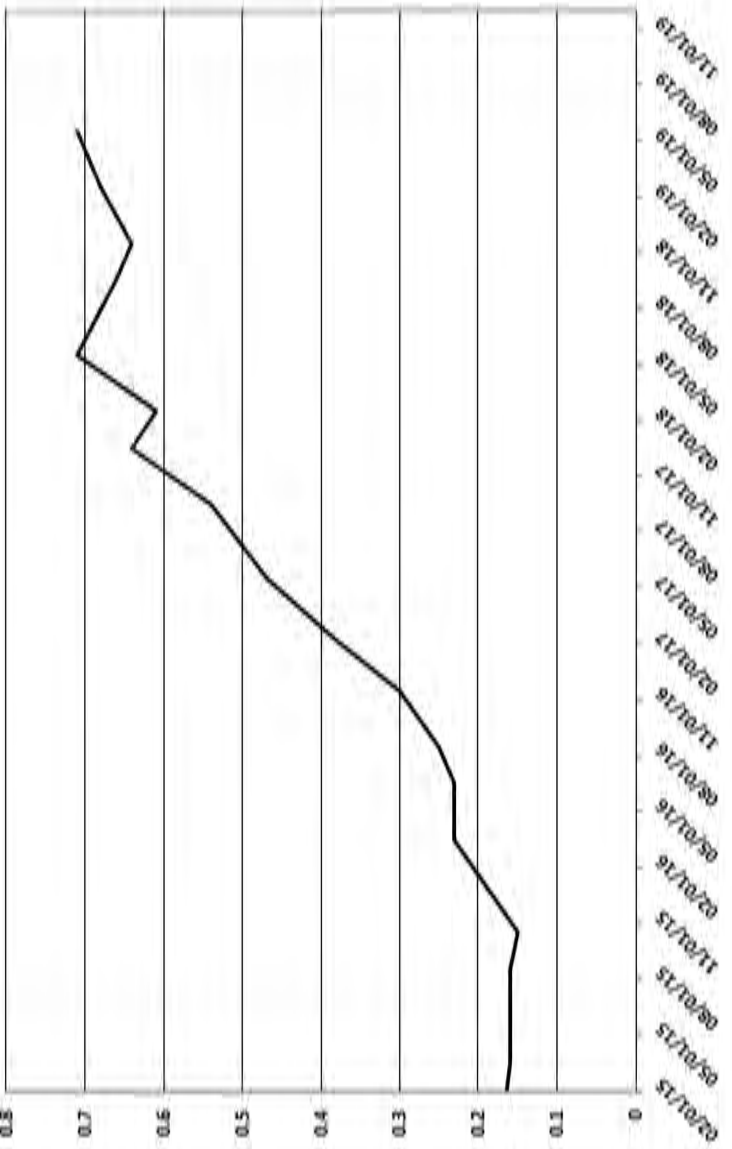
OW-14 TOLUENE (mg/L)



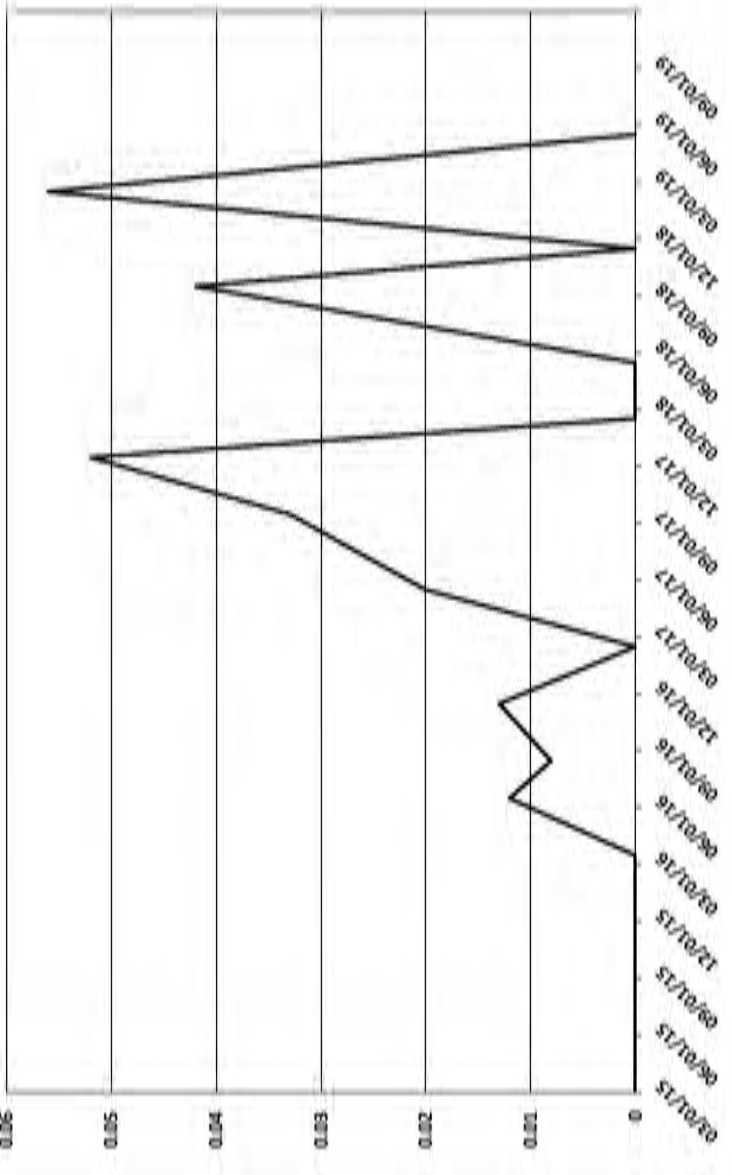
OW-14 MTBE (mg/L)



OW-14 ETHYLBENZENE (mg/L)



OW-14 TOTAL XYLENES (mg/L)





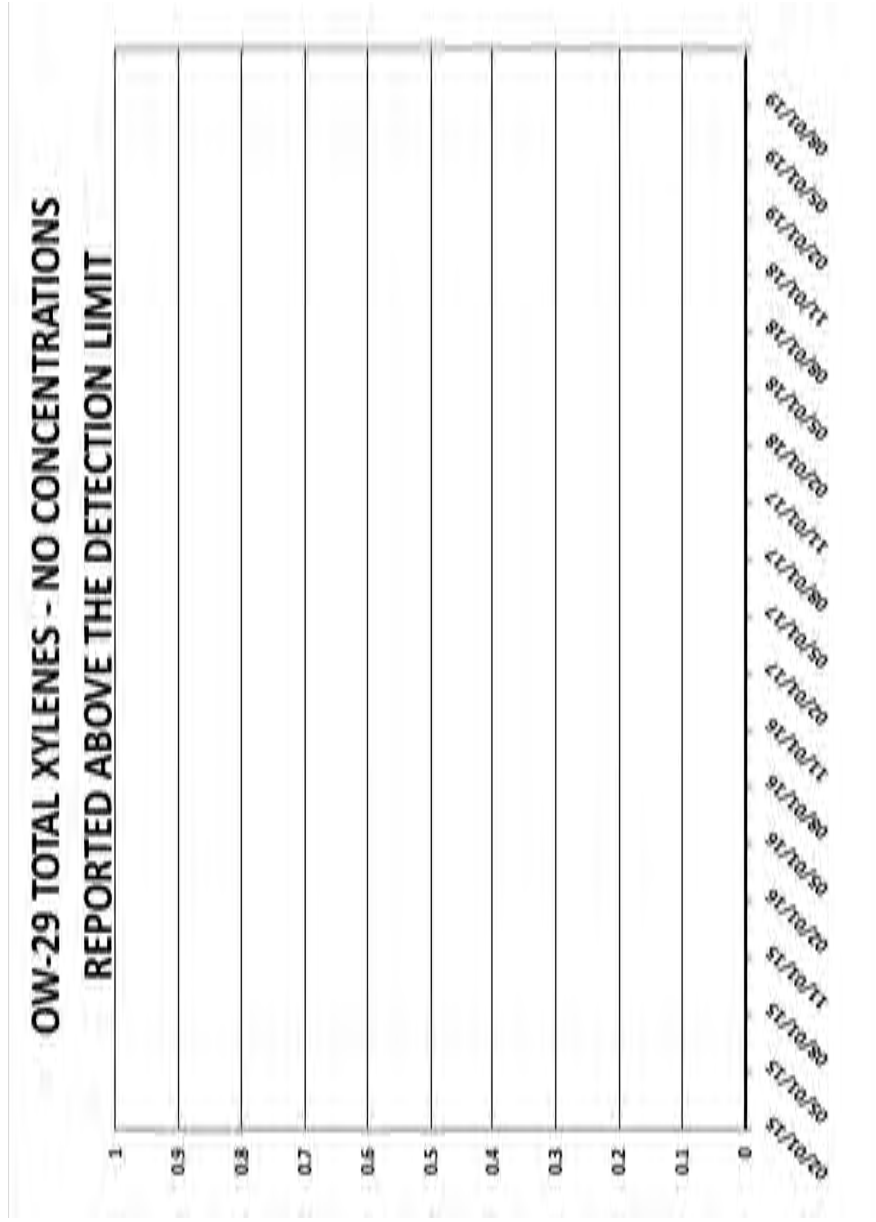
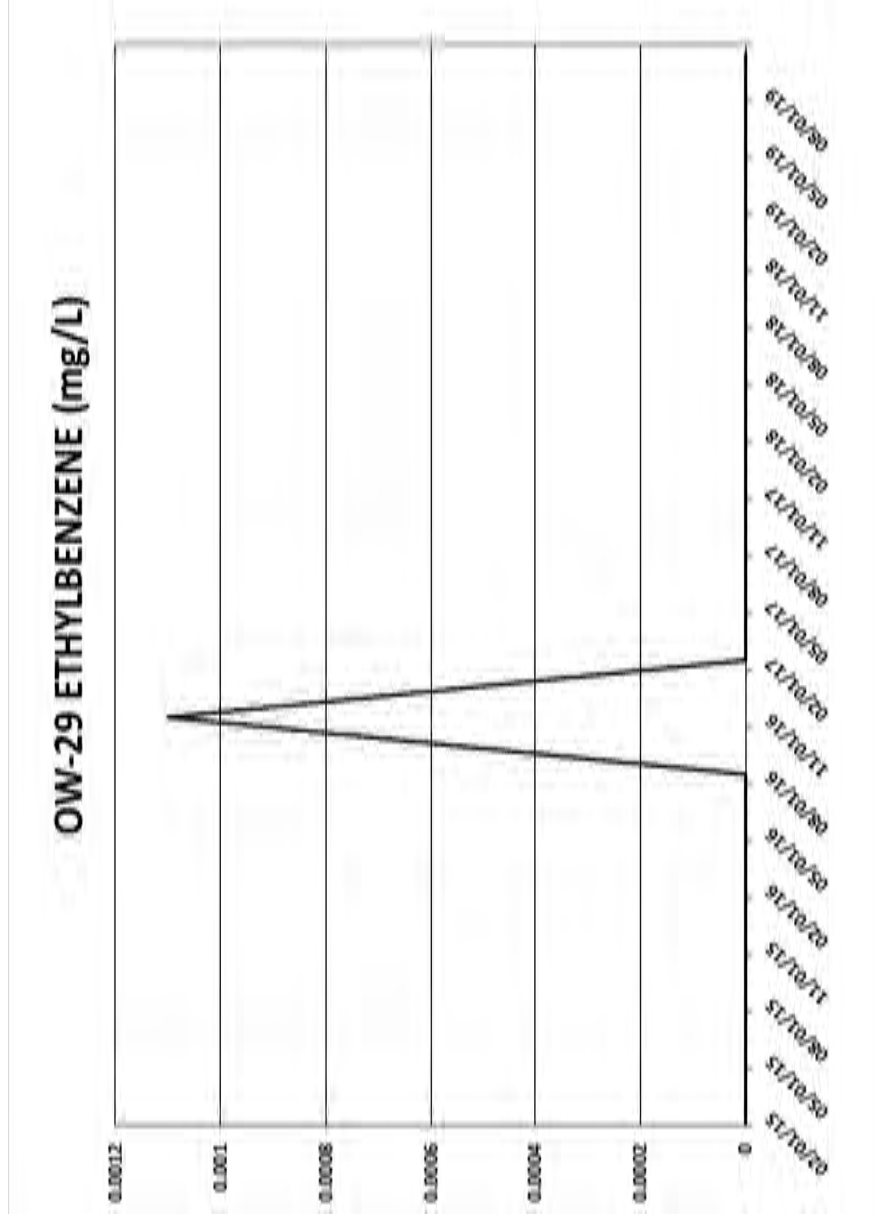
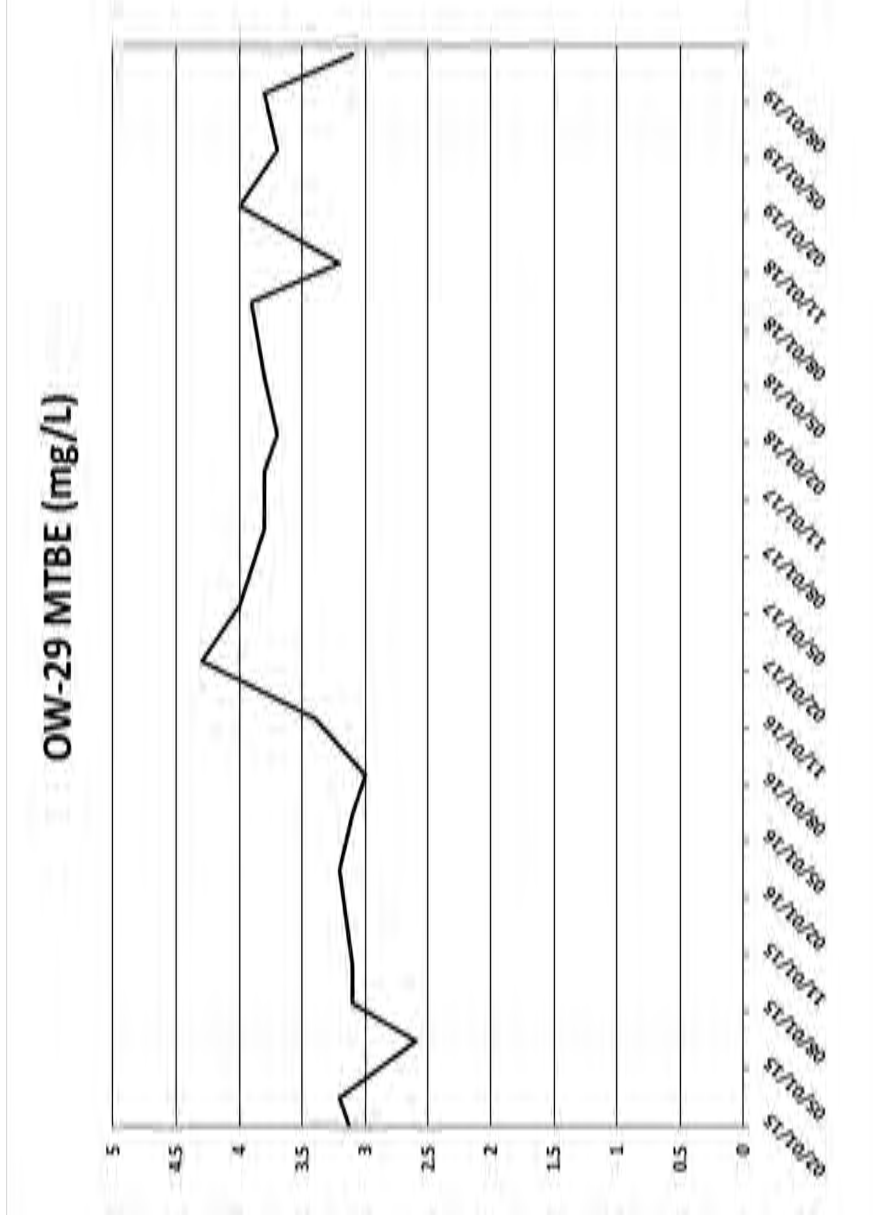
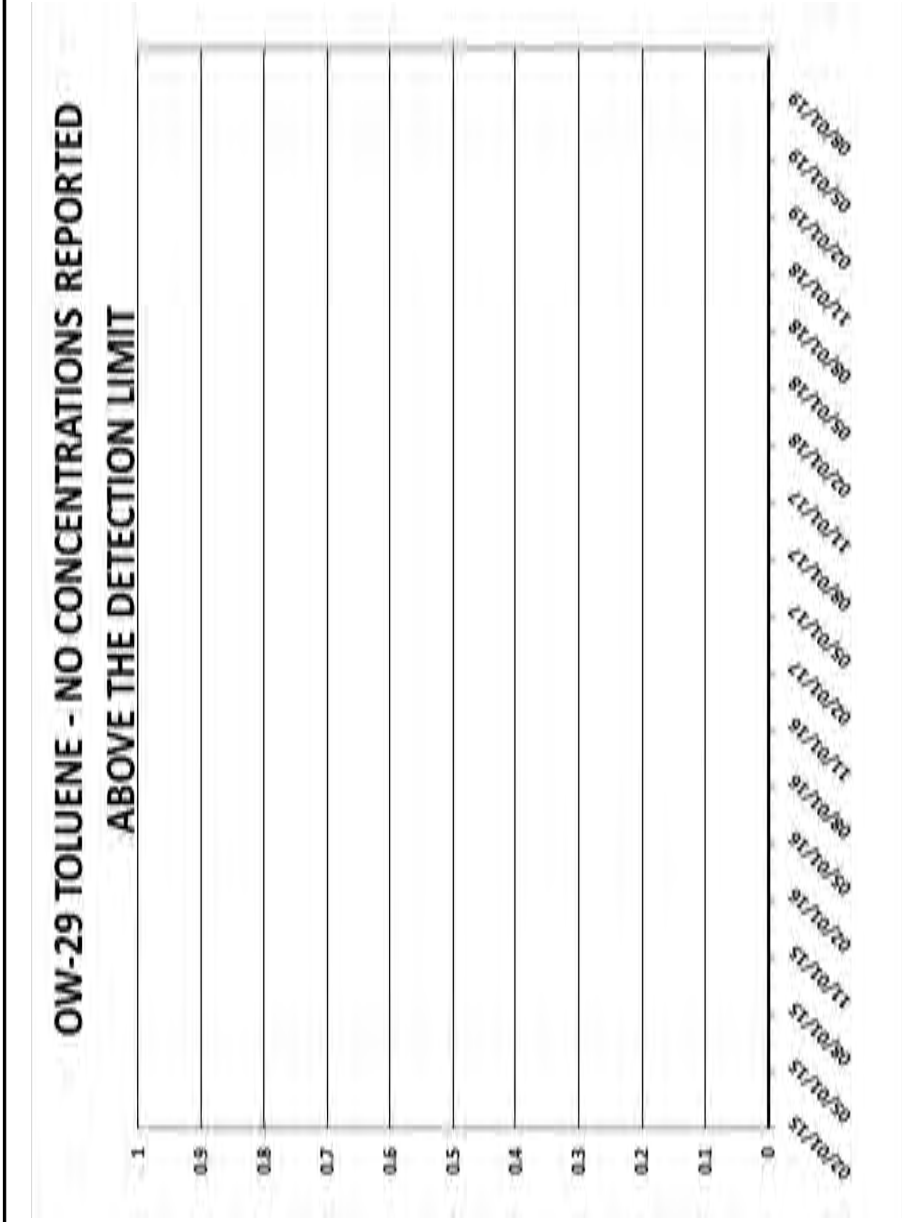
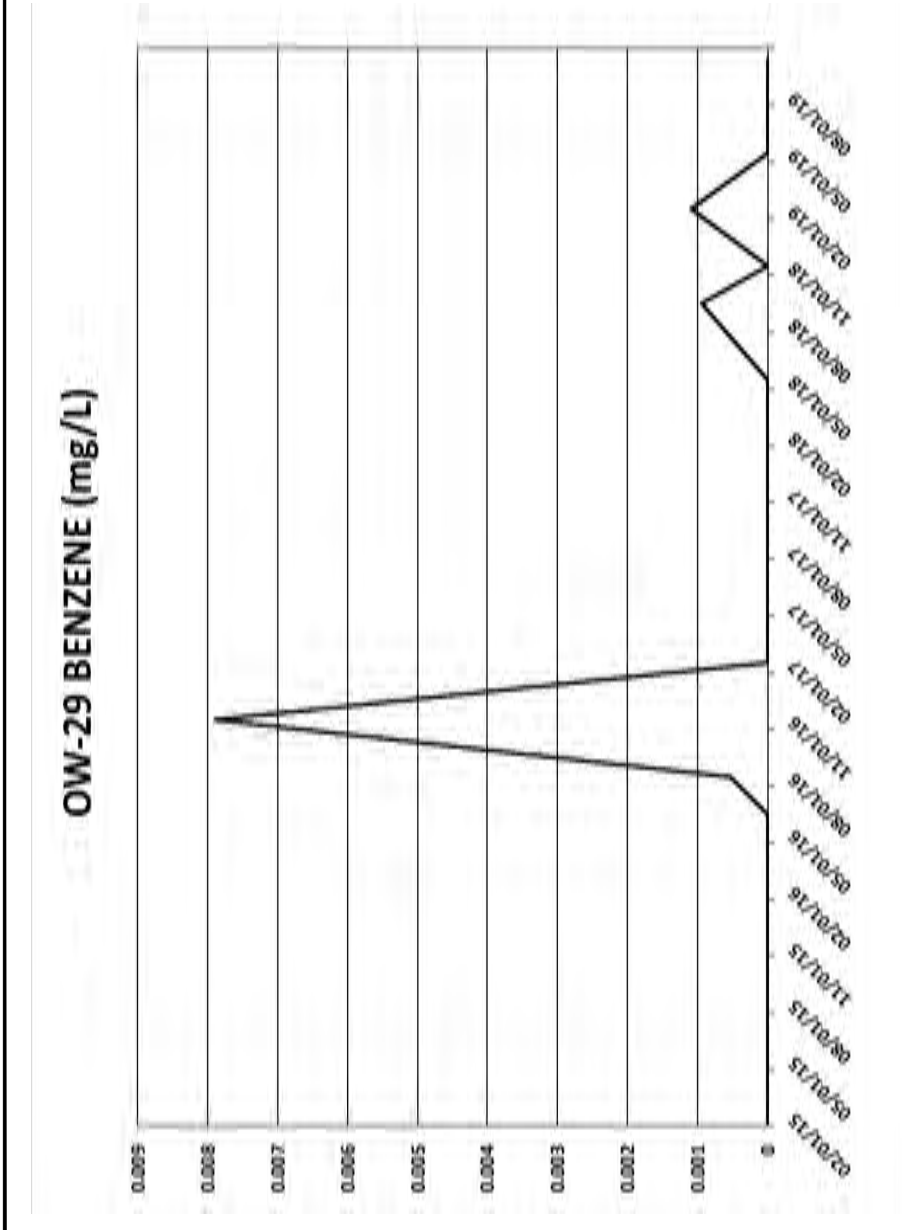
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Fax: 307.745.7233

**BTEX & MTBE THROUGH 2019 - WELL OW-14**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

FIGURE 16.2







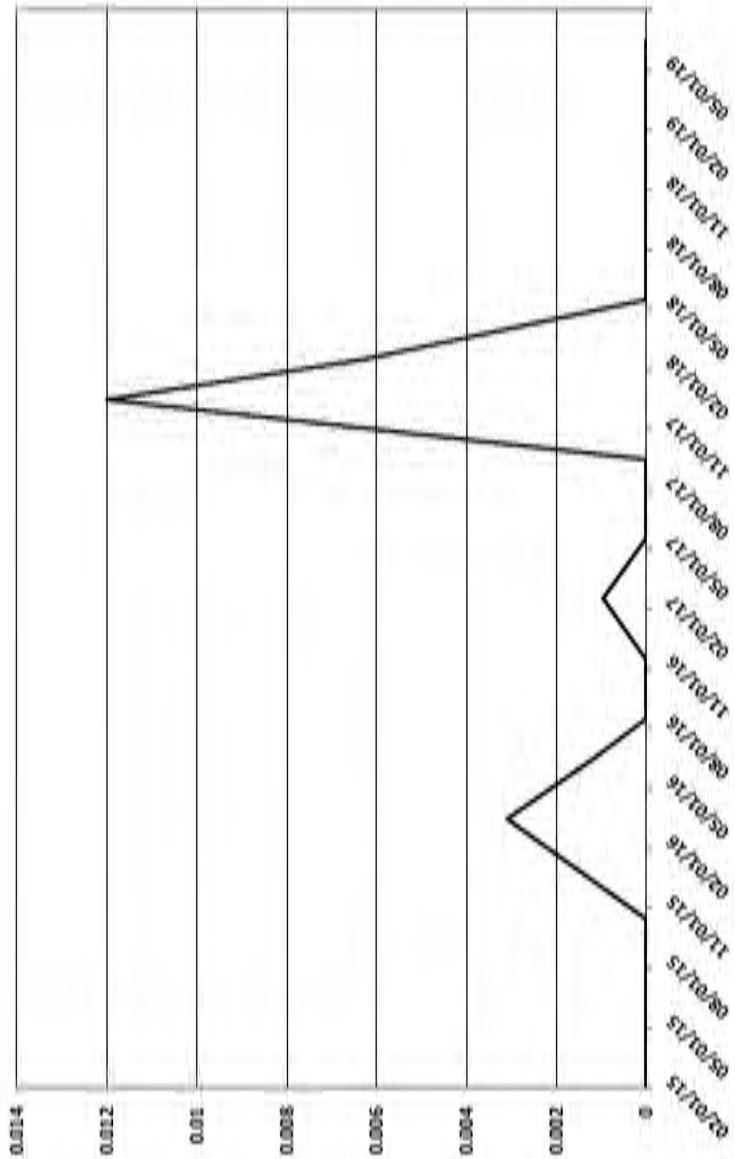
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BTEX & MTBE THROUGH 2019 - WELL OW-29		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-16.1-16.14

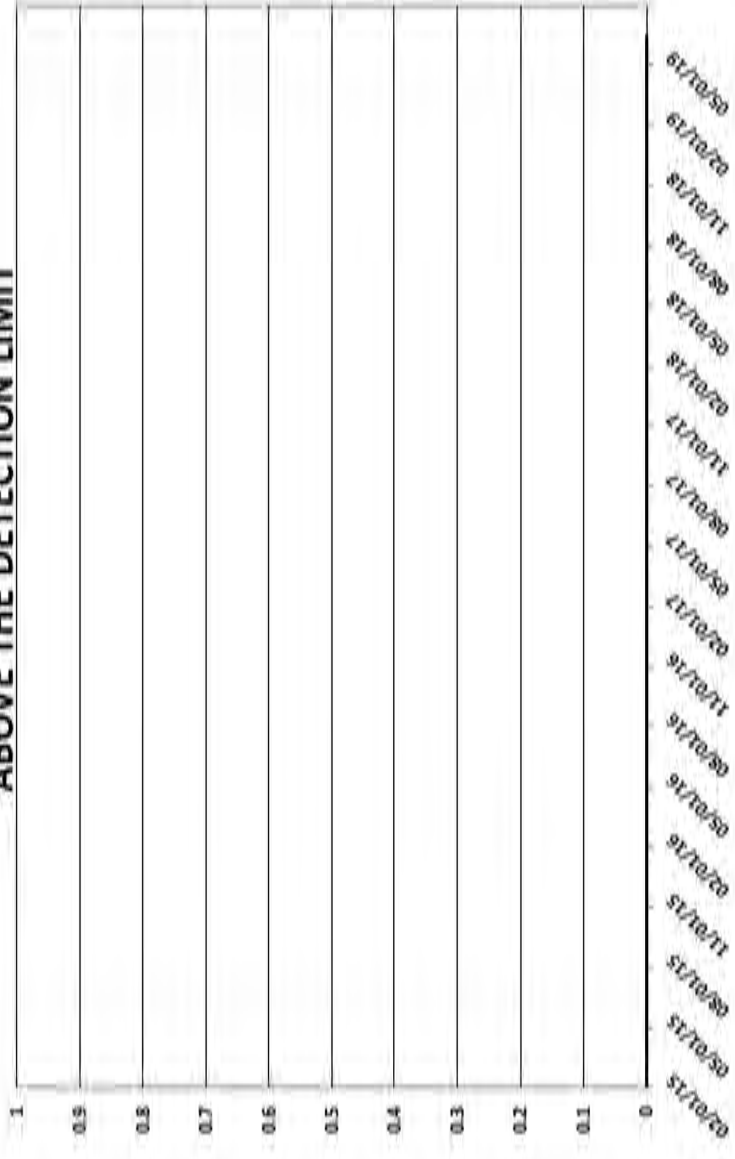
FIGURE 16.3



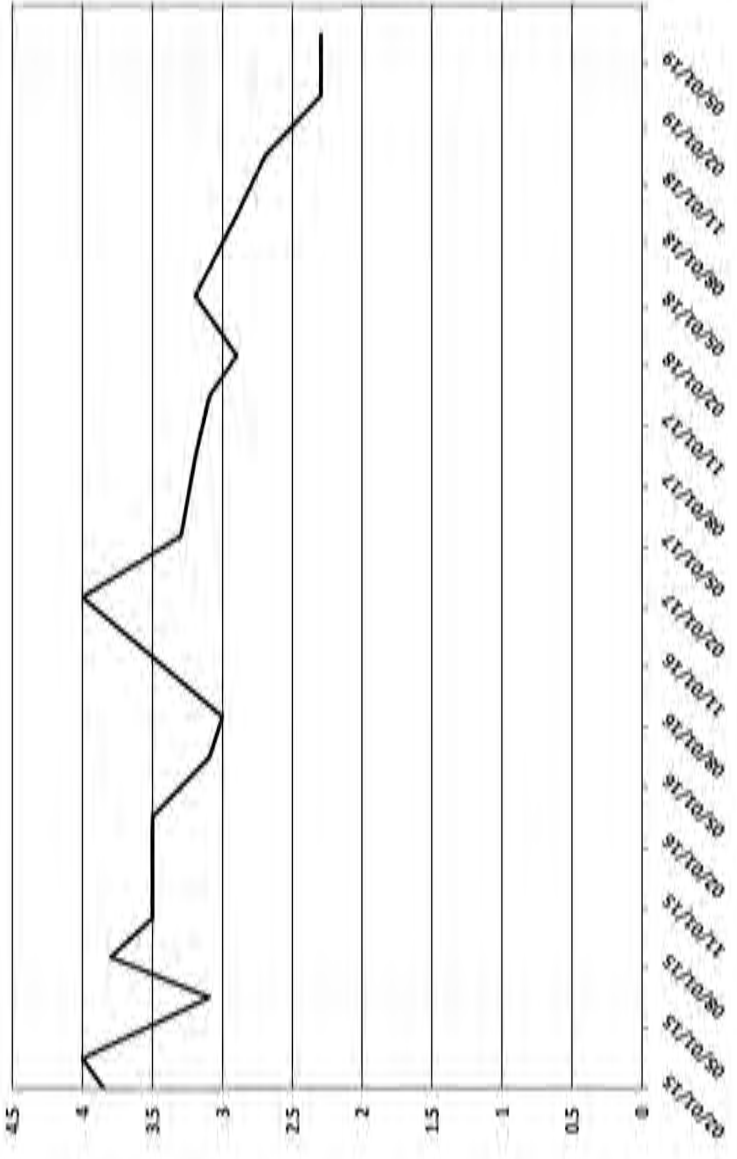
OW-30 BENZENE (mg/L)



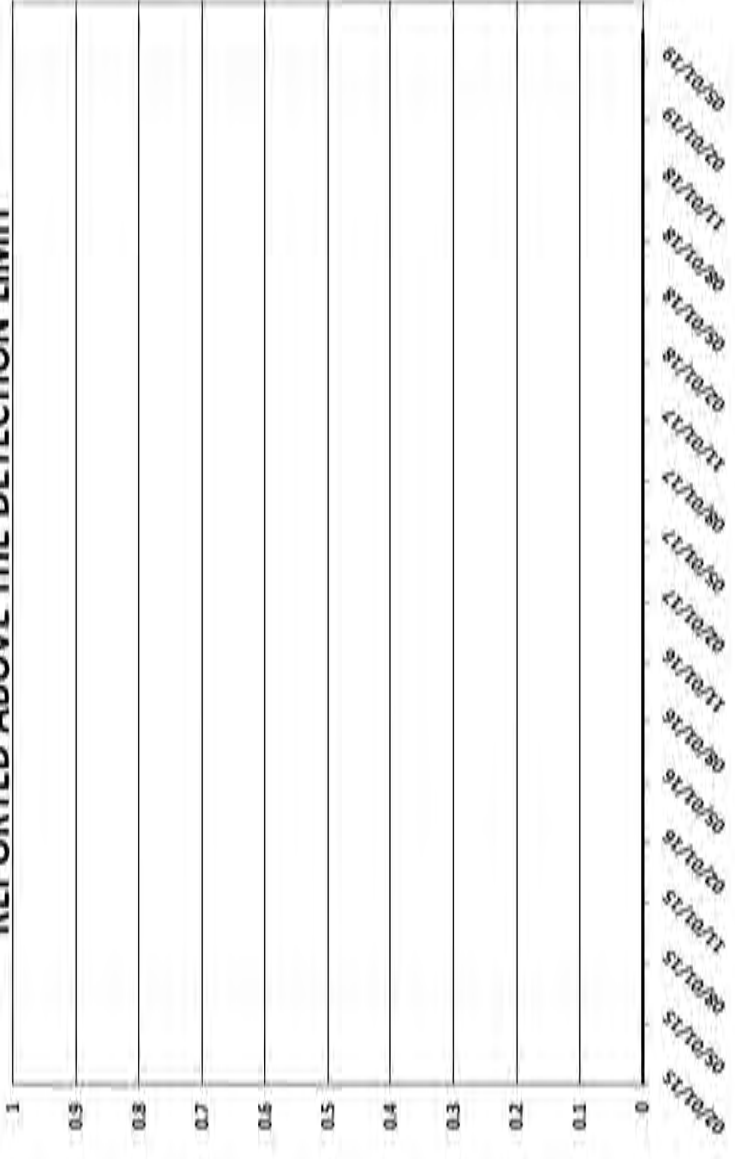
OW-30 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



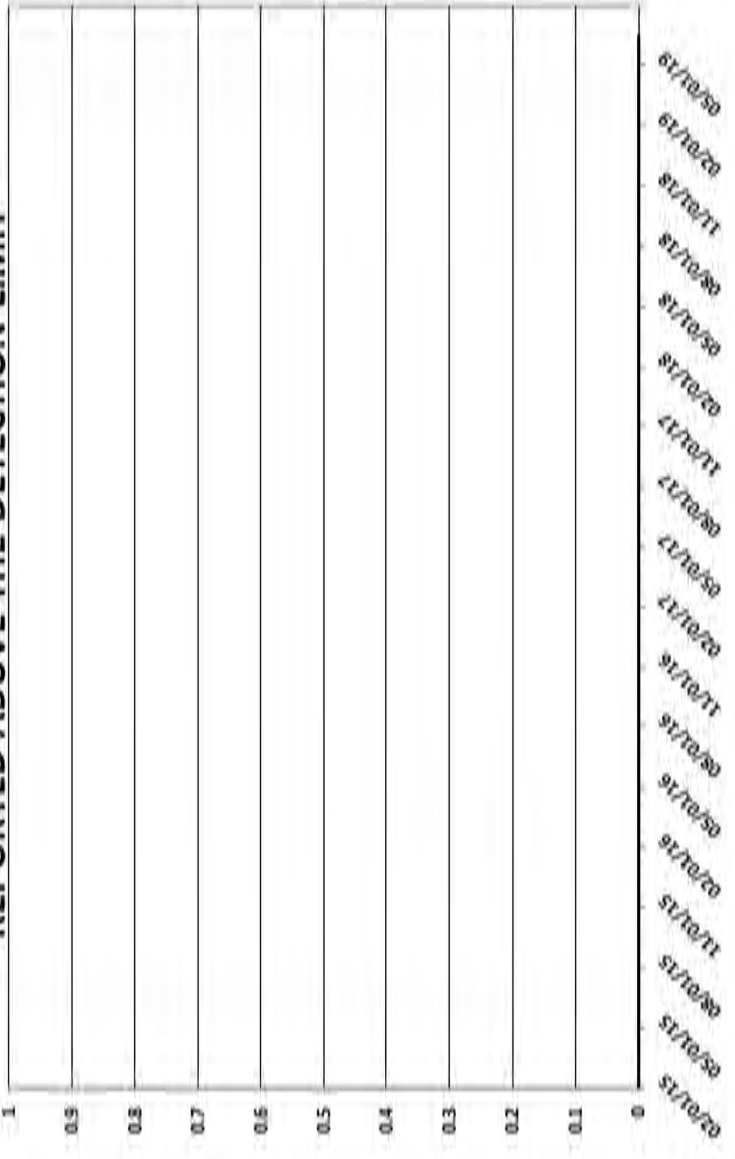
OW-30 MTBE (mg/L)



OW-30 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-30 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





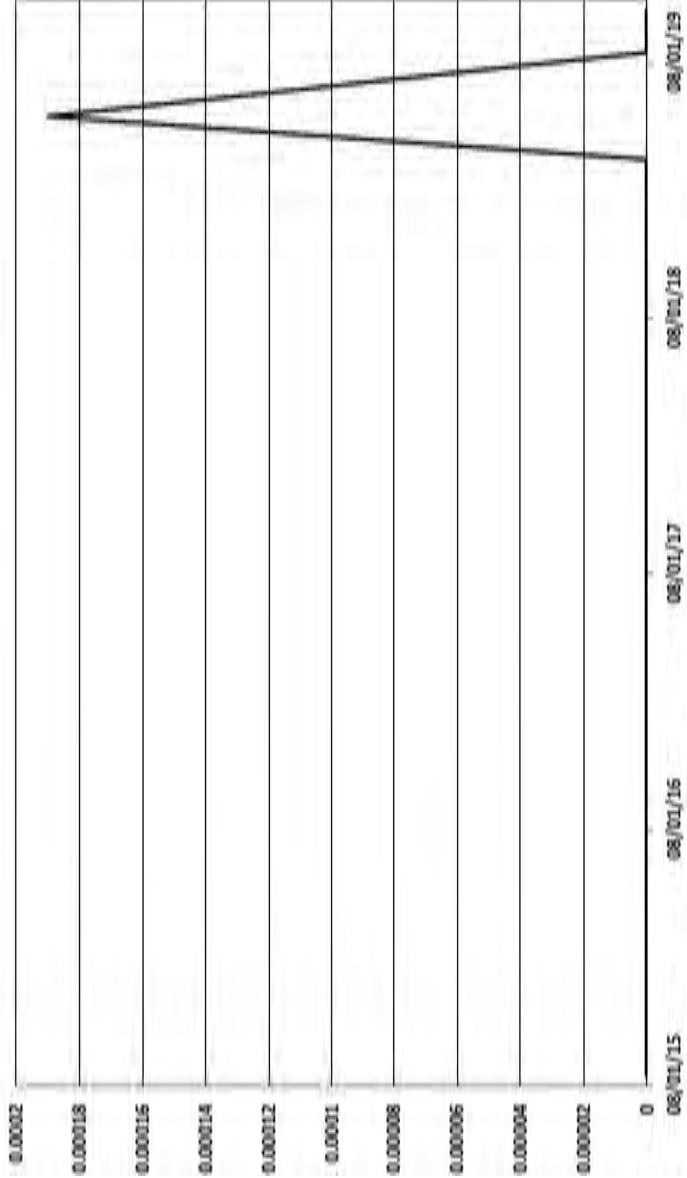
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BTEX & MTBE THROUGH 2019 - WELL OW-30		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

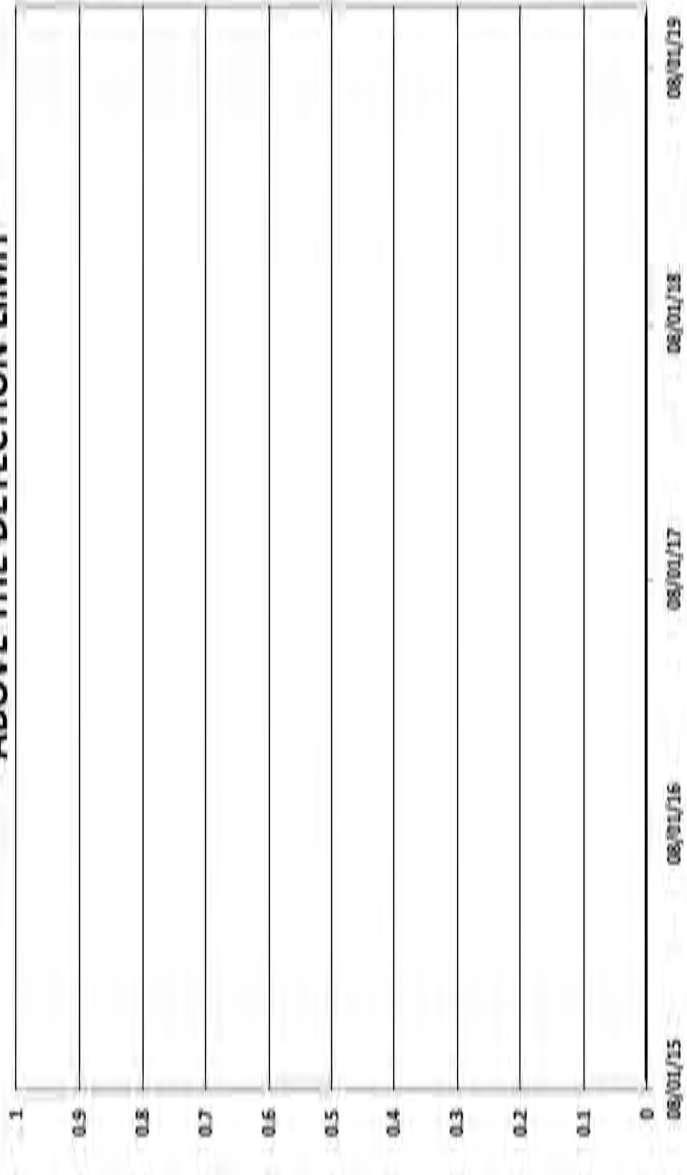
FIGURE 16.4



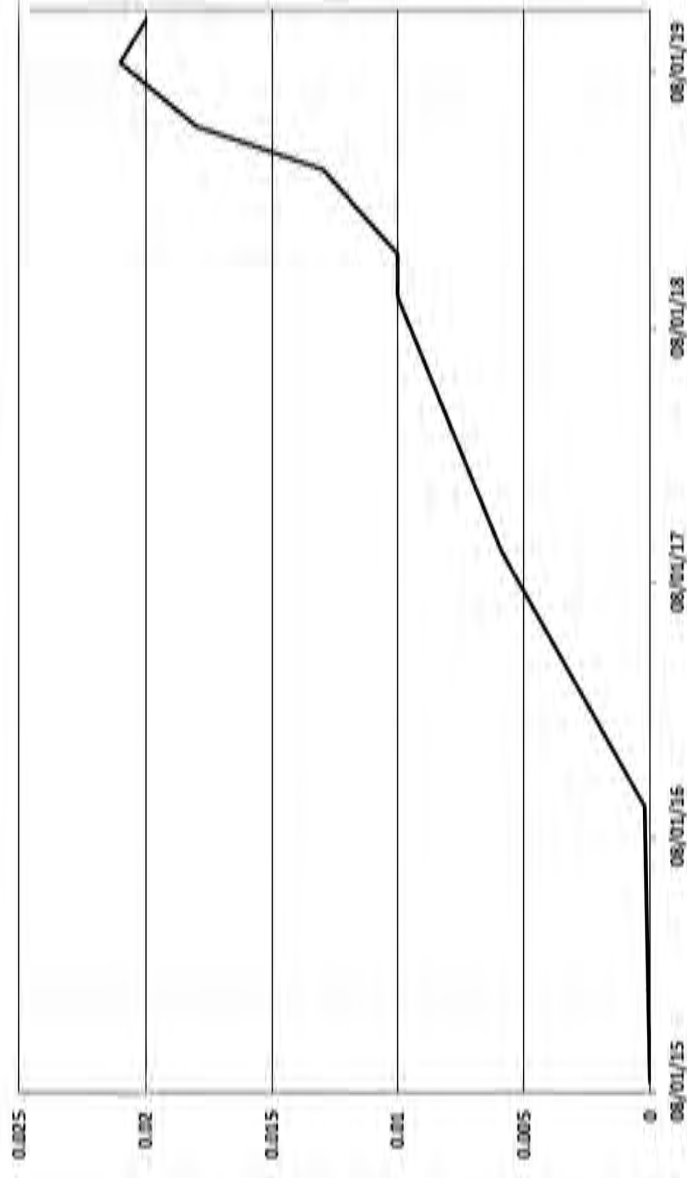
OW-50 BENZENE (mg/L)



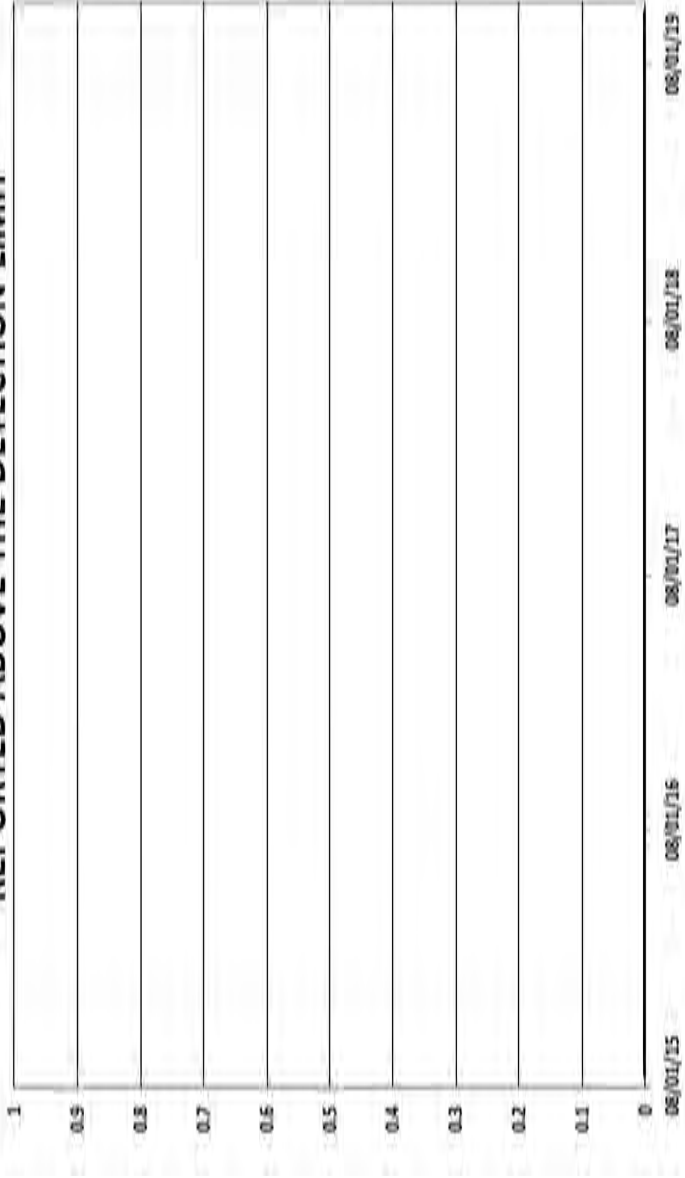
OW-50 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



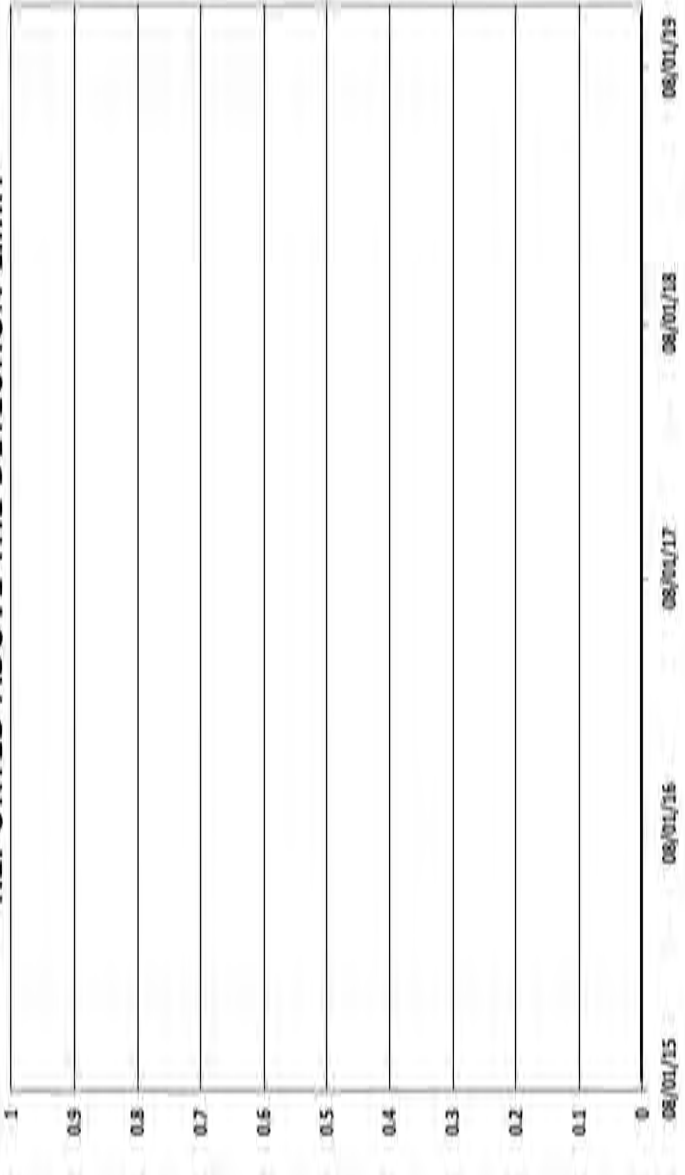
OW-50 MTBE (mg/L)



OW-50 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-50 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





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BTEX & MTBE THROUGH 2019 - WELL OW-30

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM

Scale: NONE

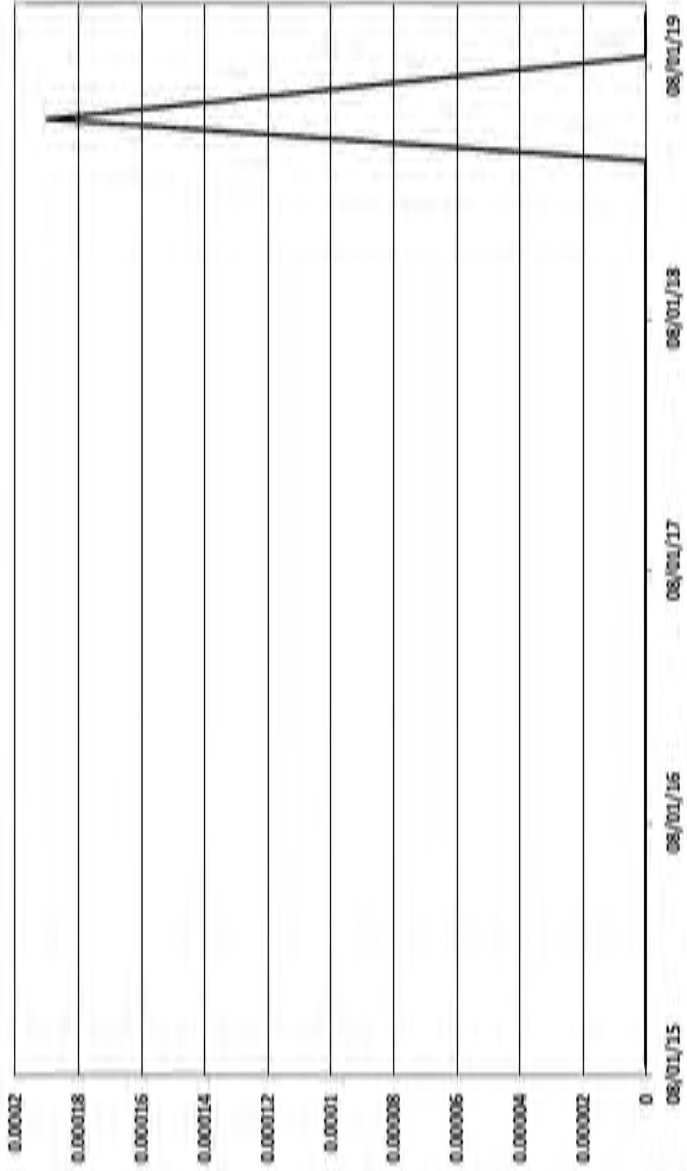
Date: 9/15/2020

File: 697-GWMON-2019-FIGS-16-1-16-14

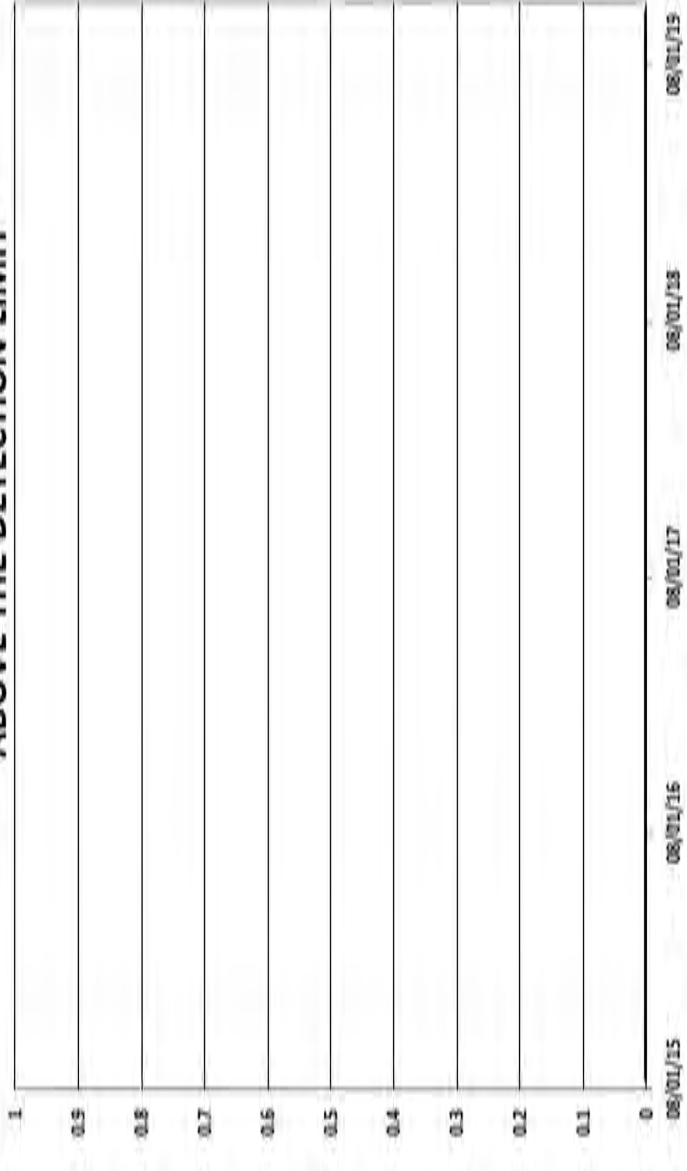
FIGURE 16.5



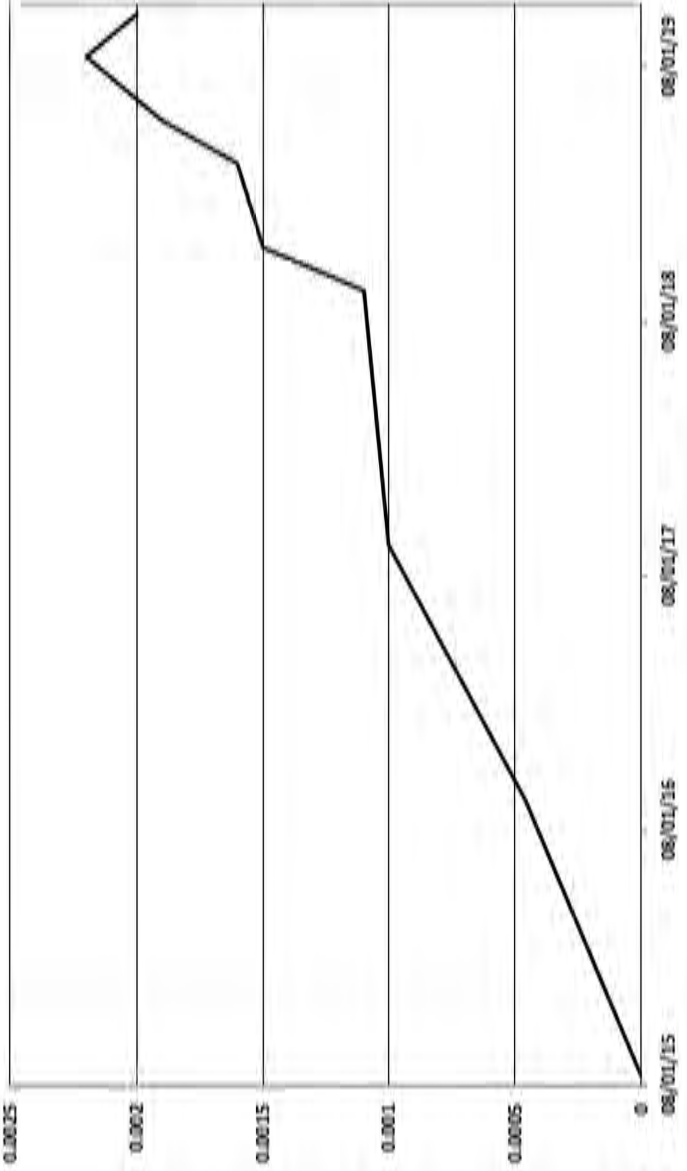
OW-52 BENZENE (mg/L)



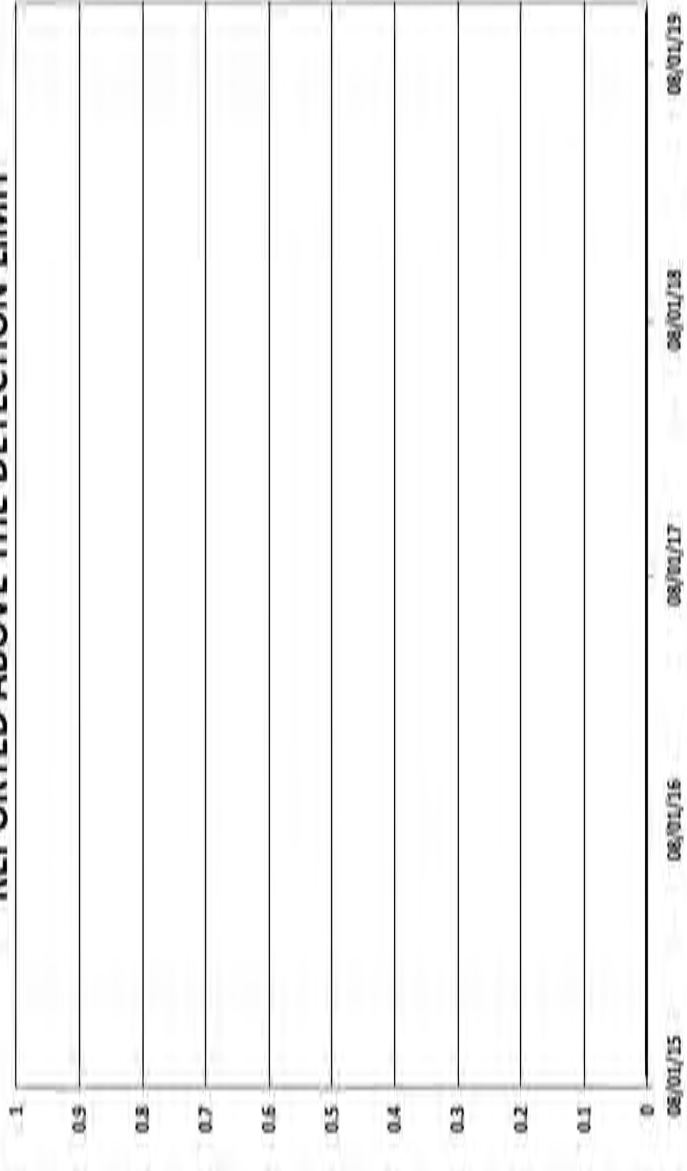
OW-52 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



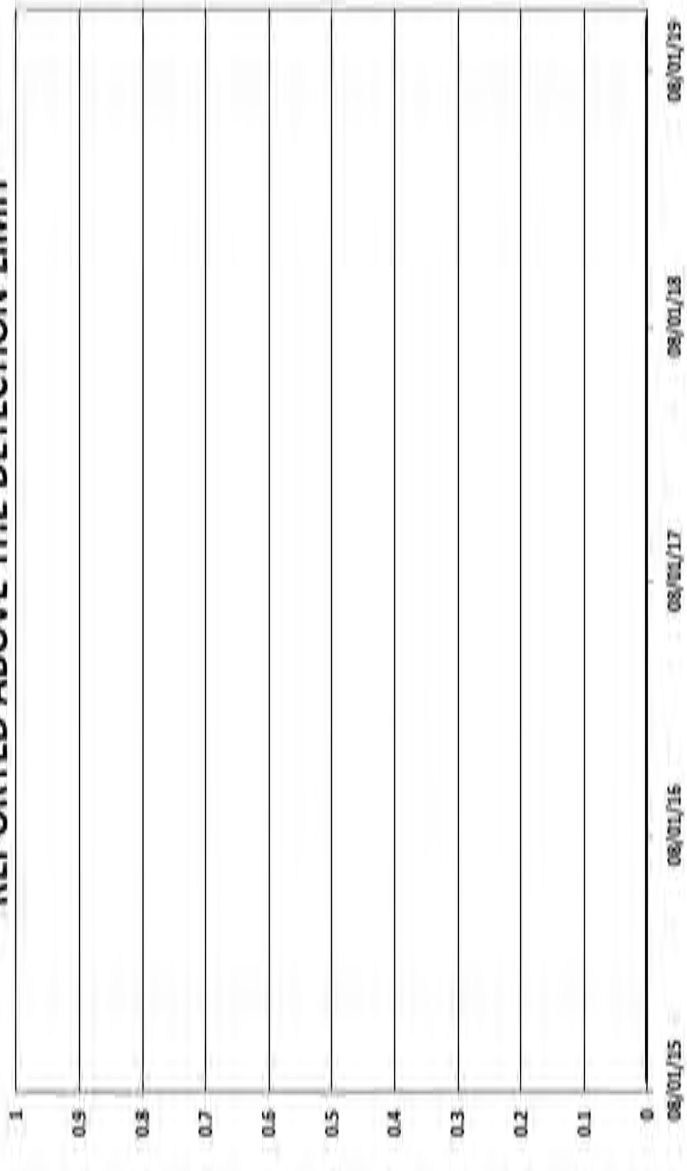
OW-52 MTBE (mg/L)



OW-52 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-52 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





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BTEX & MTBE THROUGH 2019 - WELL OW-52

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM

Scale: NONE

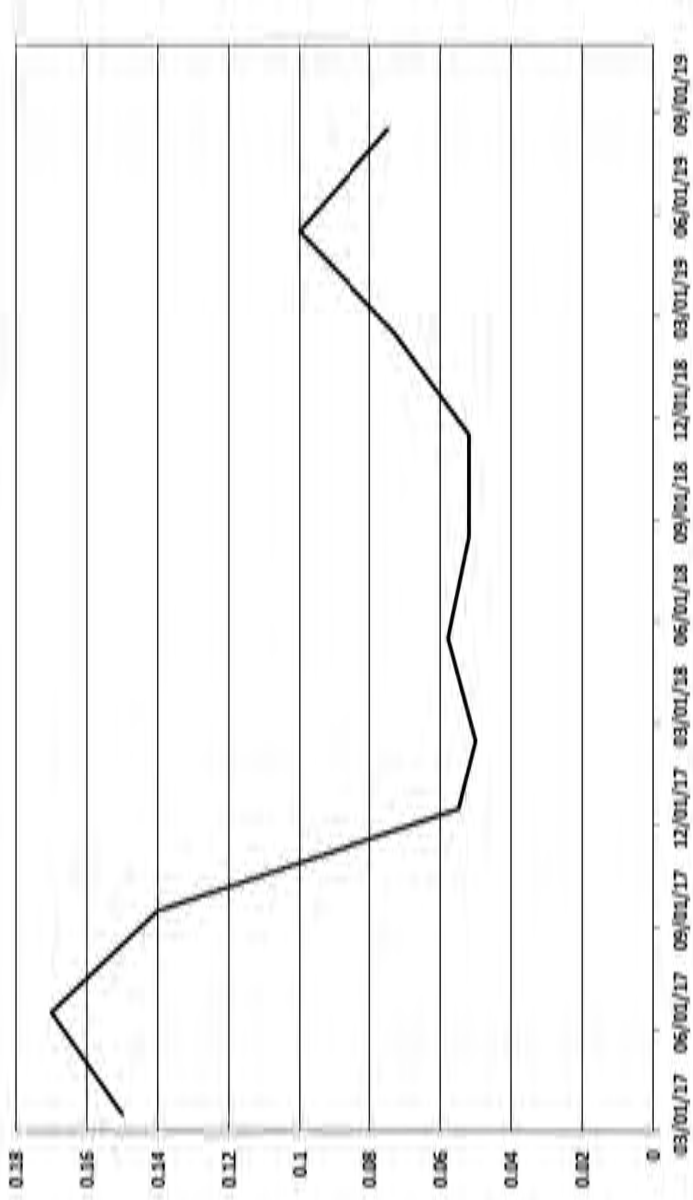
Date: 9/15/2020

File: 697-GWMON-2019-FIGS-16-1-16-14

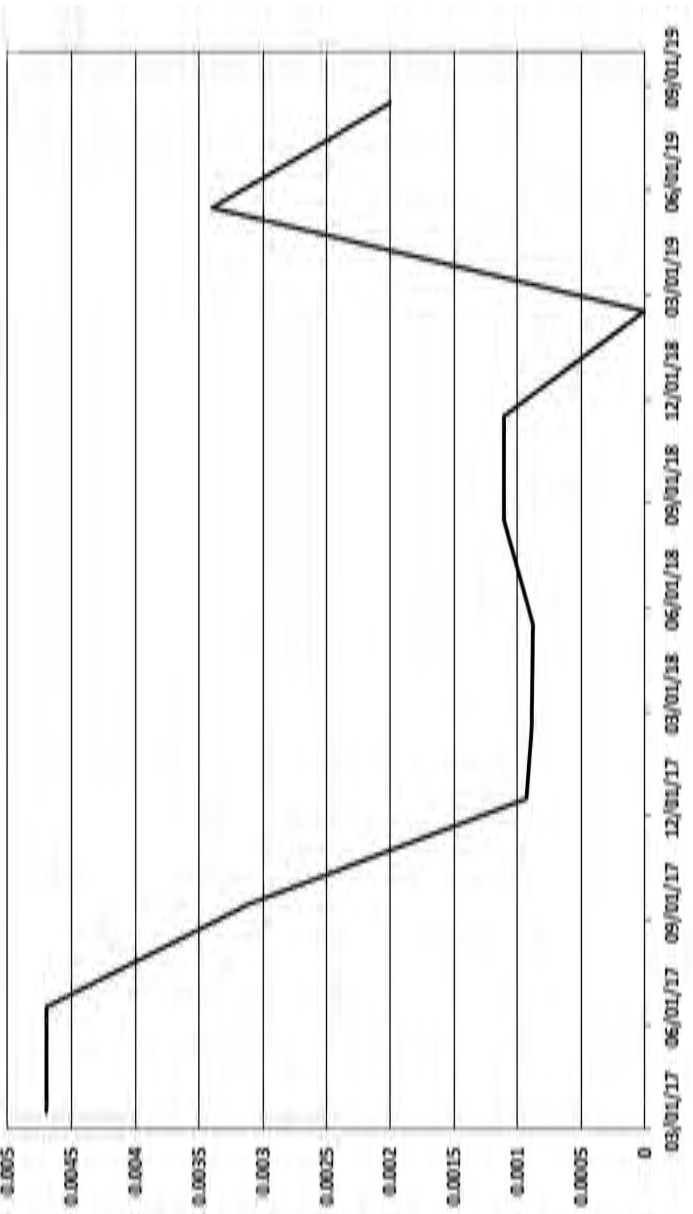
FIGURE 16.6



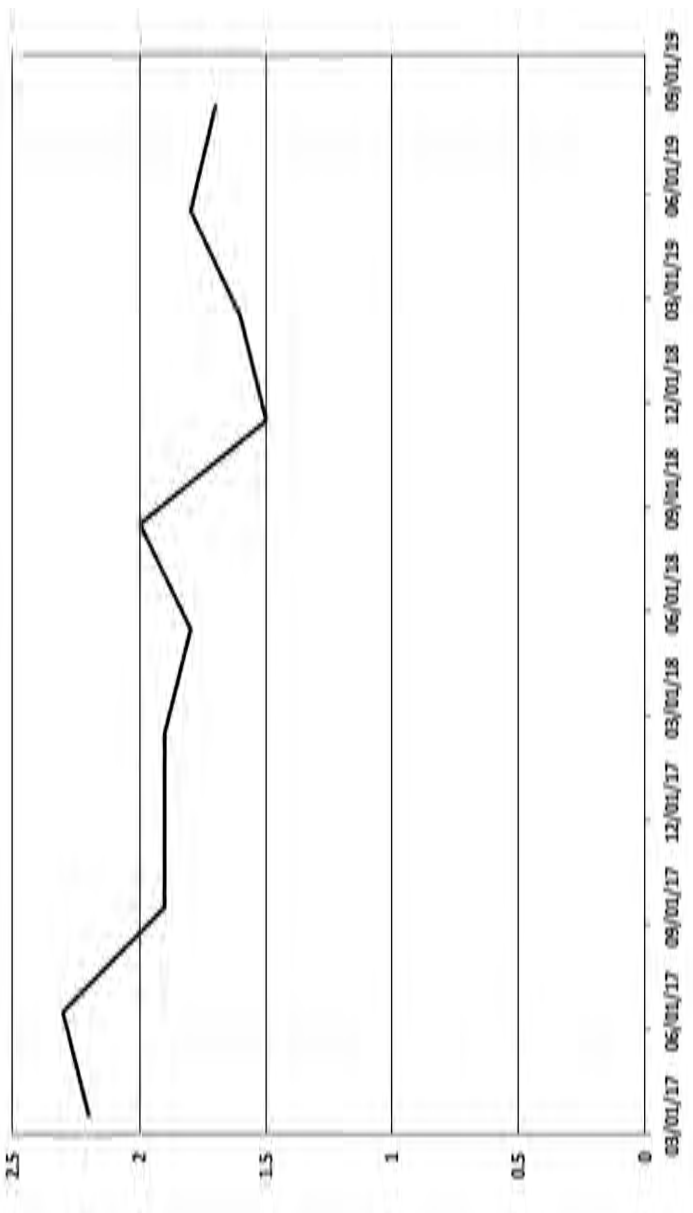
OW-54 BENZENE (mg/L)



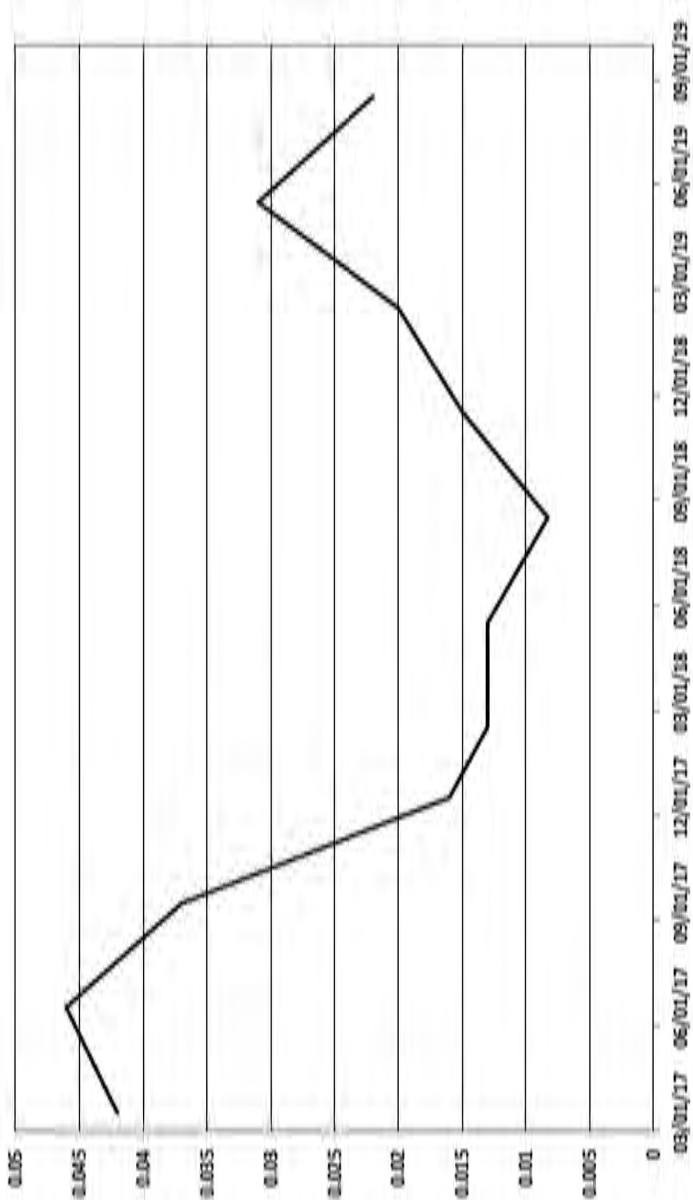
OW-54 TOLUENE (mg/L)



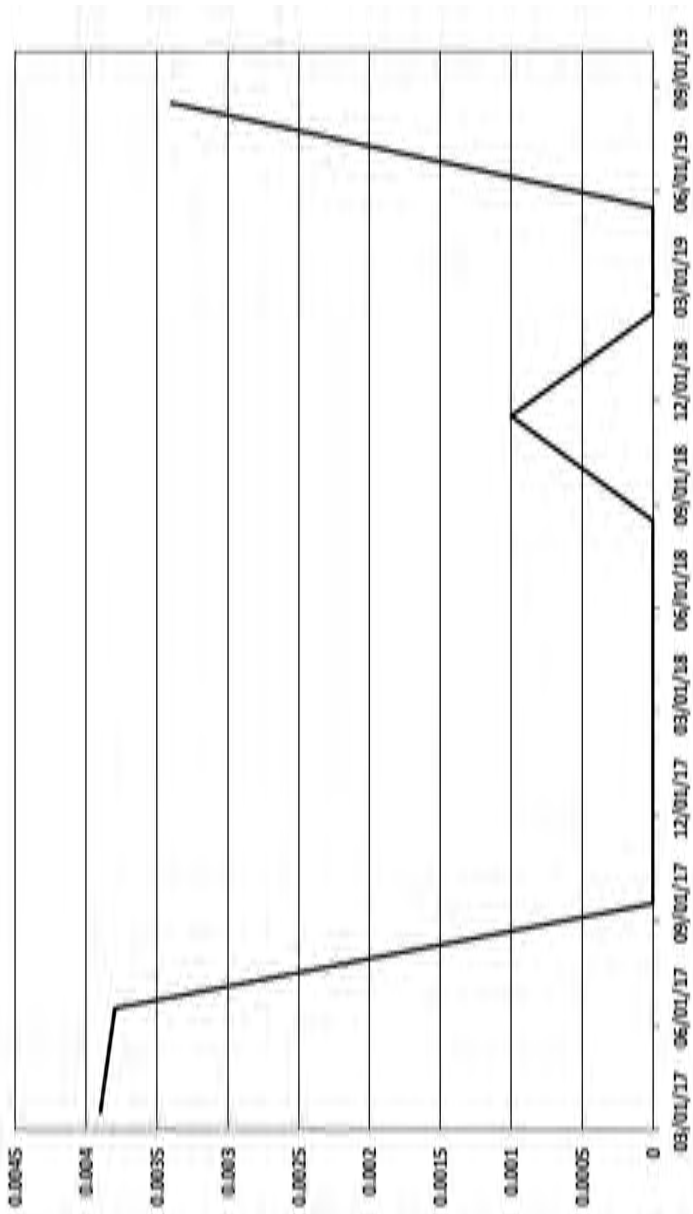
OW-54 MTBE (mg/L)



OW-54 ETHYLBENZENE (mg/L)



OW-54 TOTAL XYLENES (mg/L)





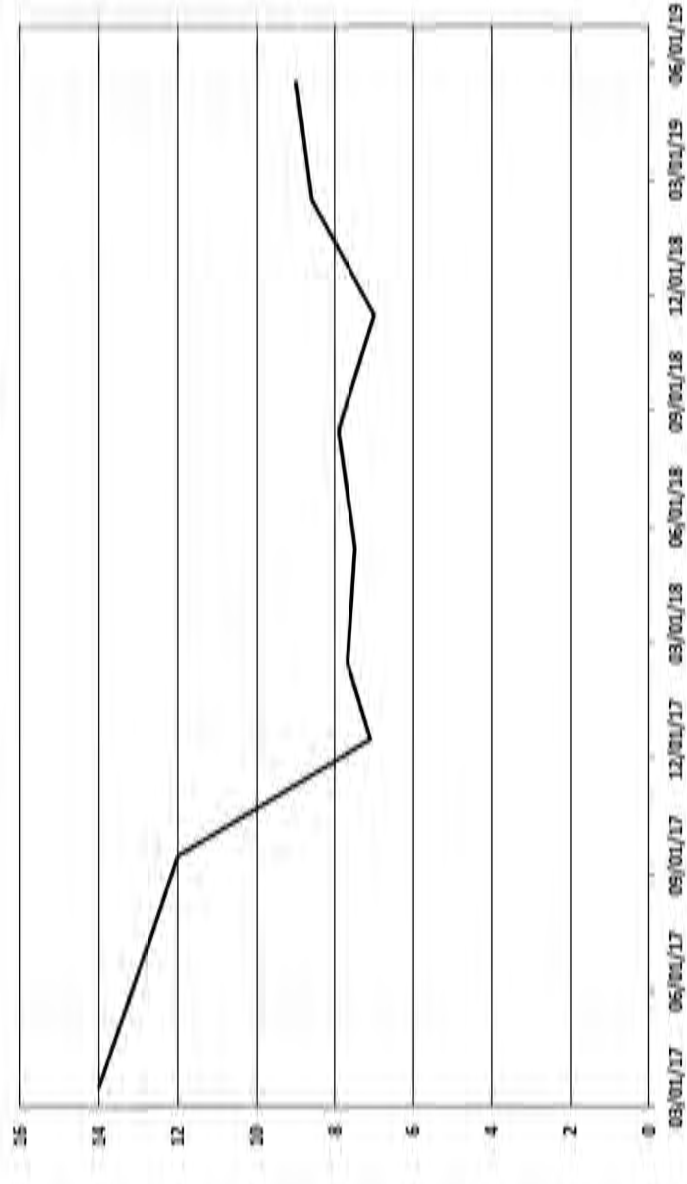
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BTEX & MTBE THROUGH 2019 - WELL OW-54		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FIGS-16-1-16-14

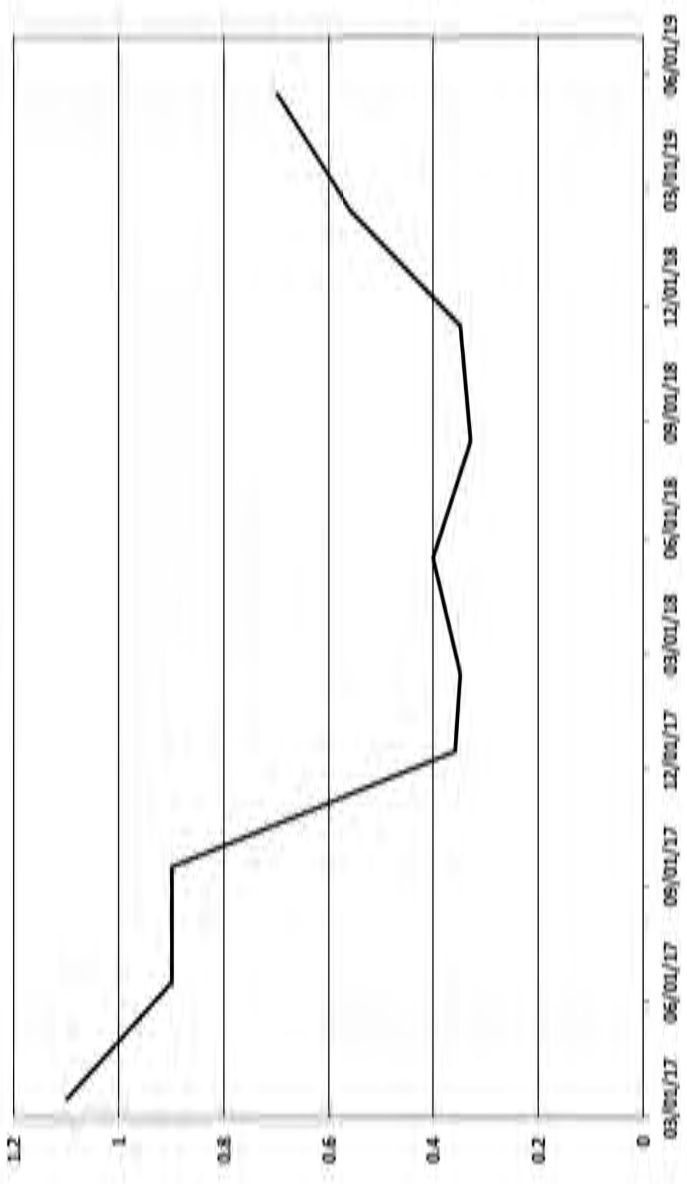
FIGURE 16.7



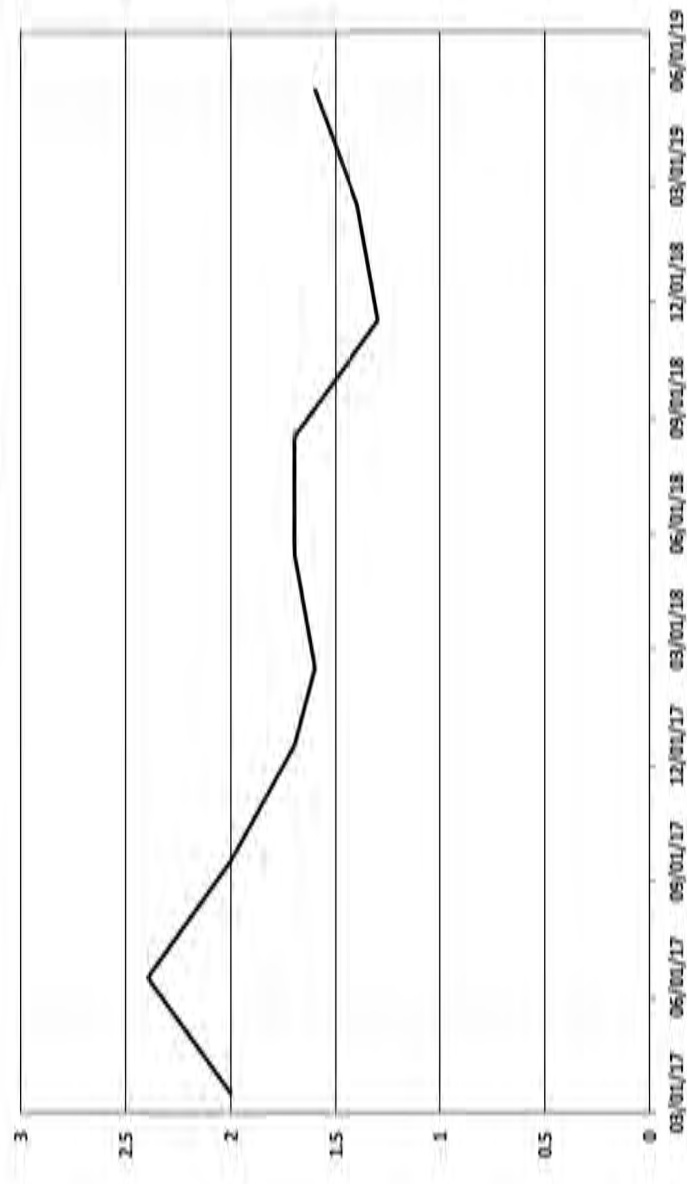
OW-55 BENZENE (mg/L)



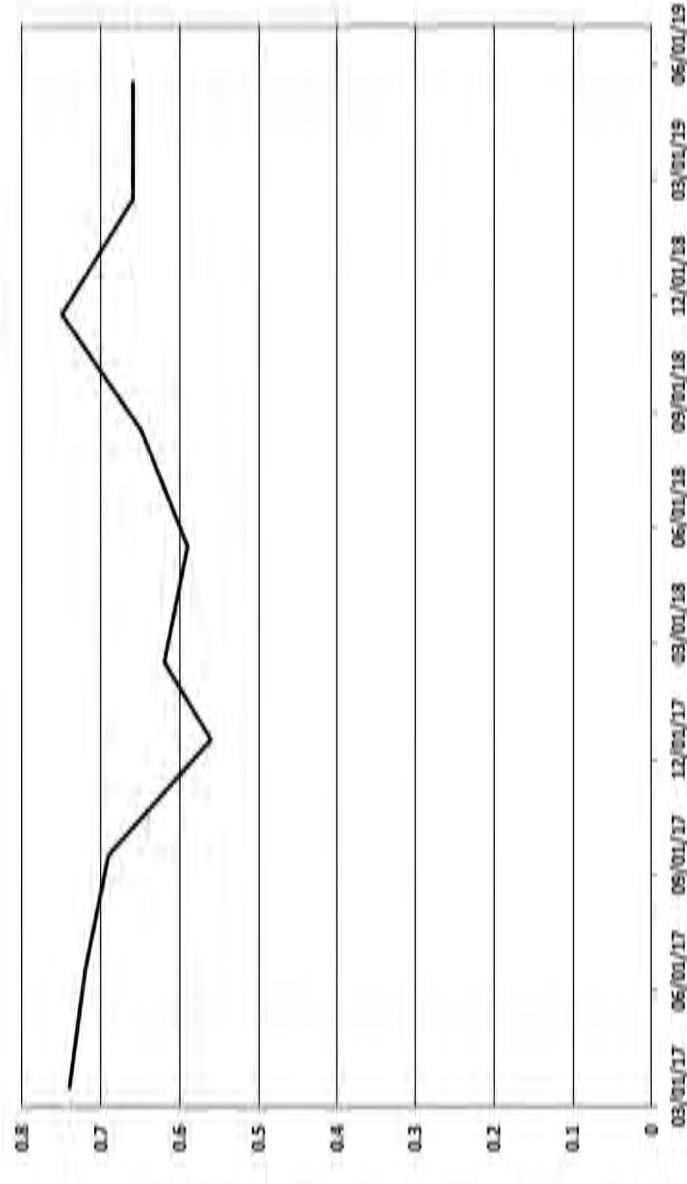
OW-55 TOLUENE (mg/L)



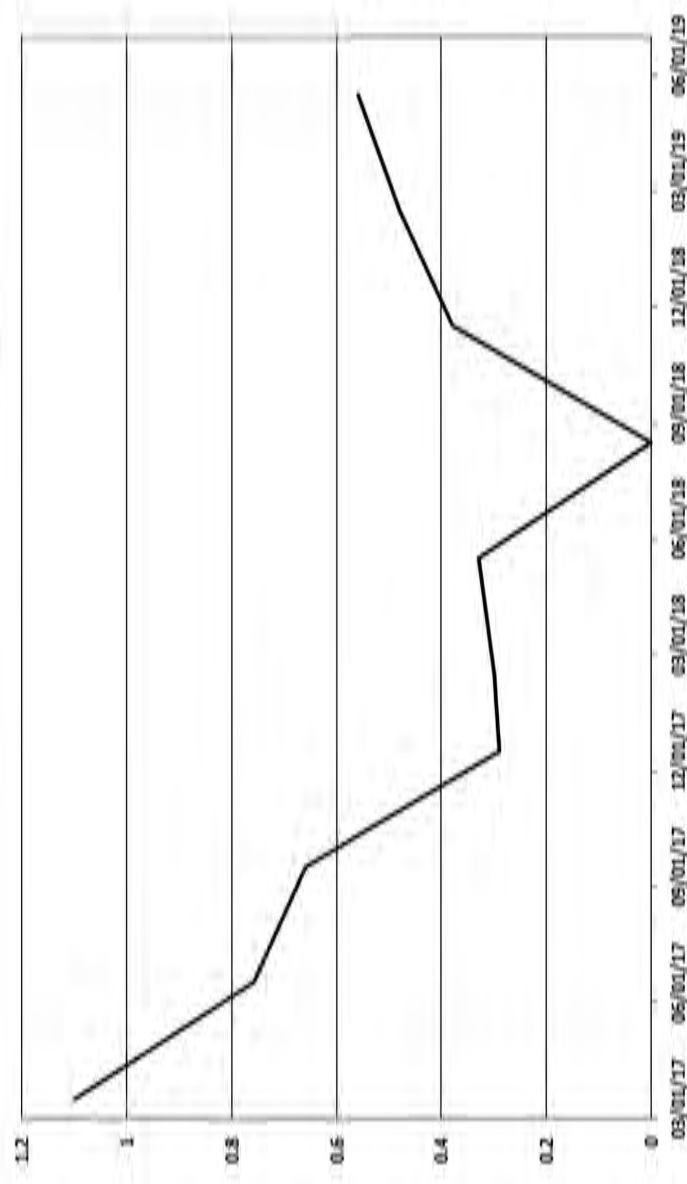
OW-55 MTBE (mg/L)



OW-55 ETHYLBENZENE (mg/L)



OW-55 TOTAL XYLENES (mg/L)





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**FIGURE 16.8**

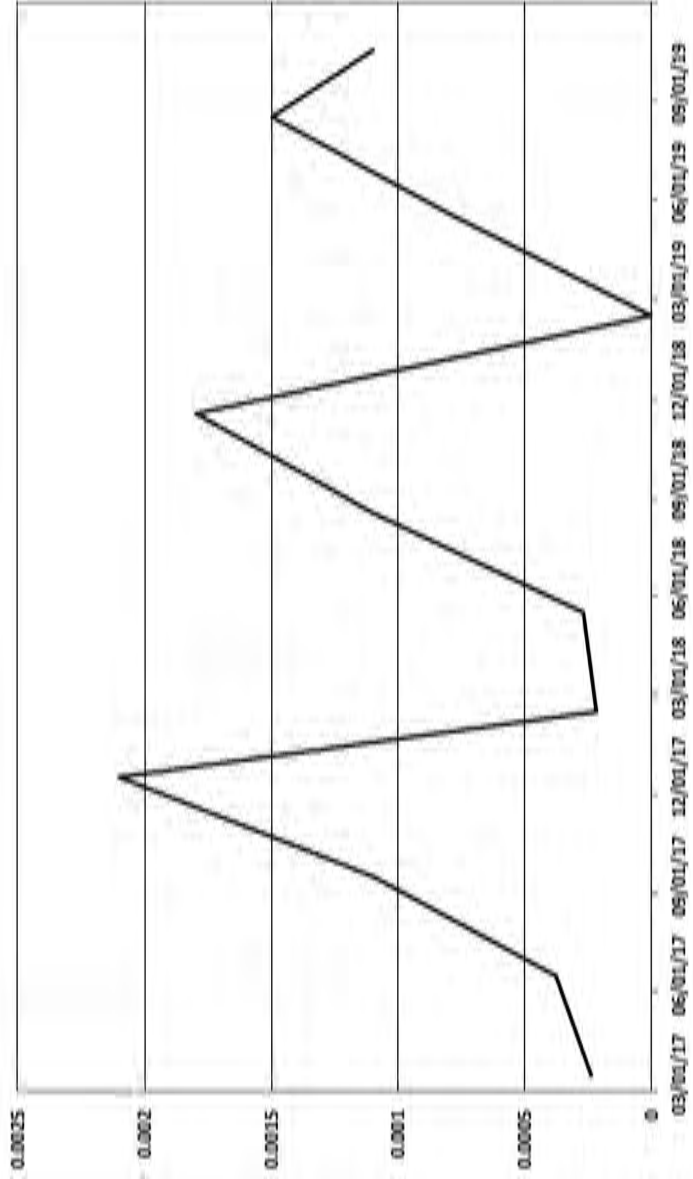
**BTEX & MTBE THROUGH 2019 - WELL OW-55**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

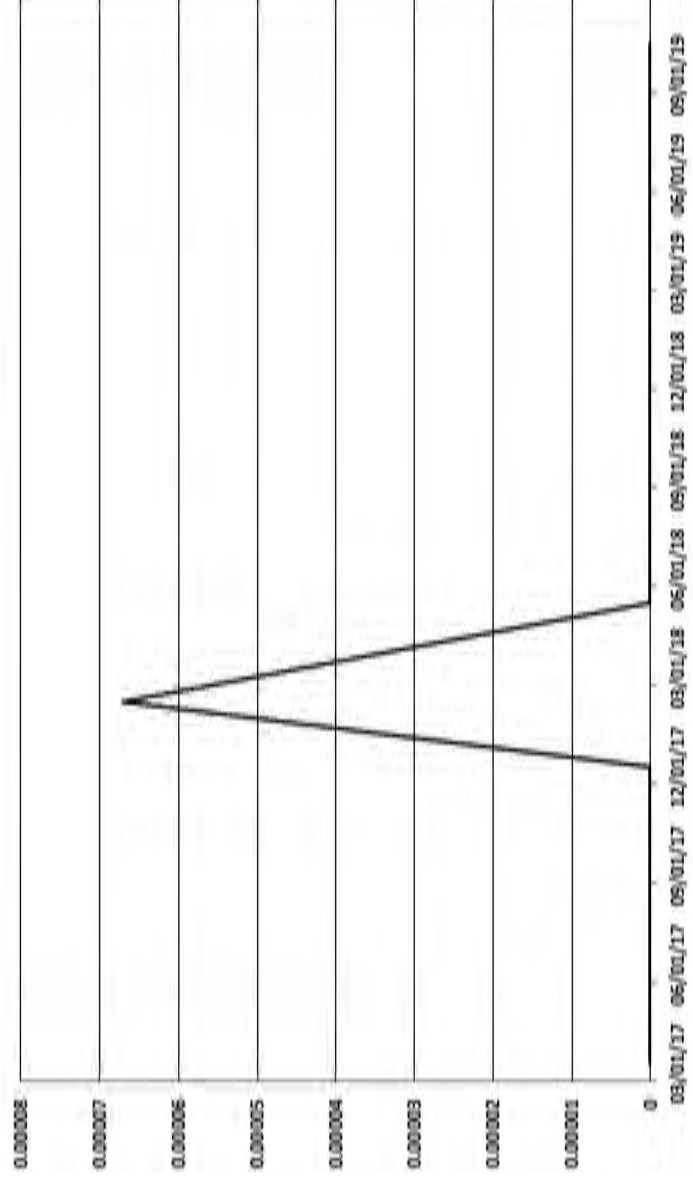
Drawn By: REP Checked By: BM Scale: NONE Date: 9/15/2020 File: 697-GWMON-2019-FIGS-16.1-16.14



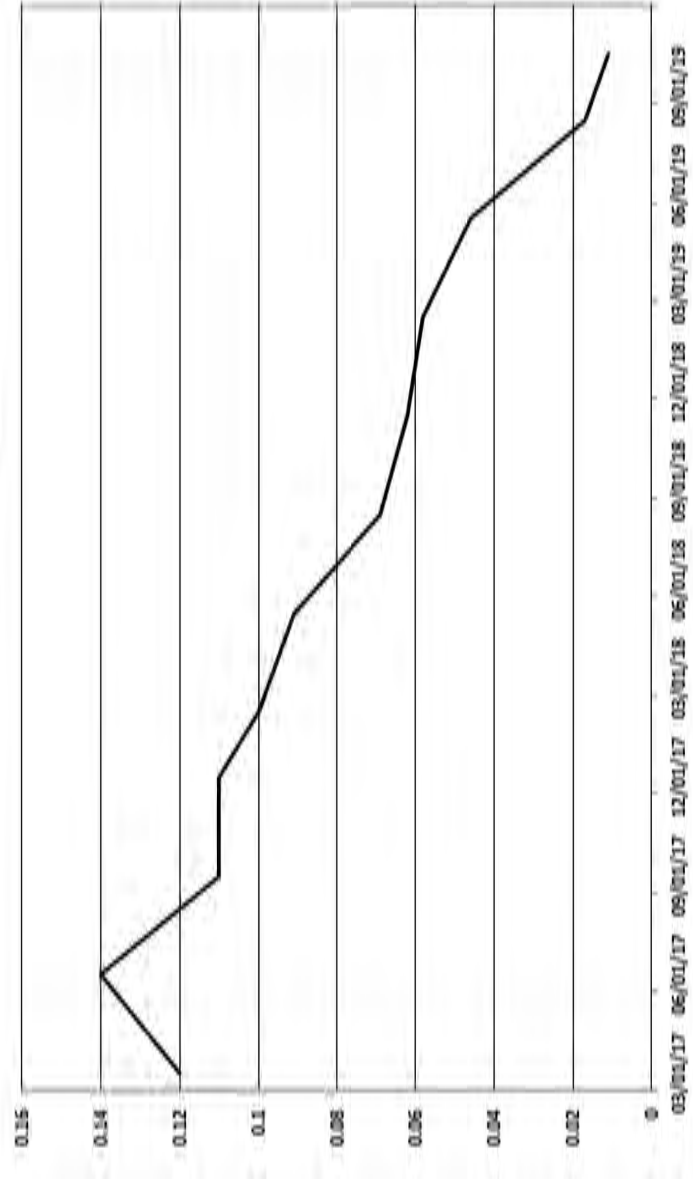
OW-56 BENZENE (mg/L)



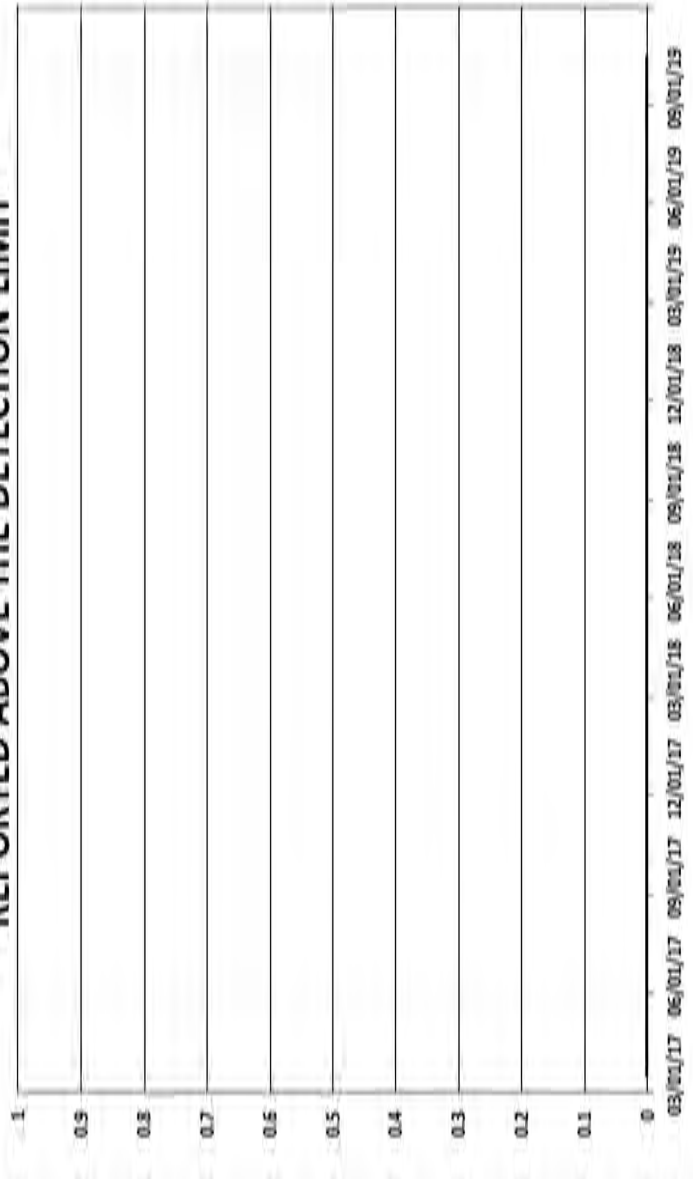
OW-56 TOLUENE (mg/L)



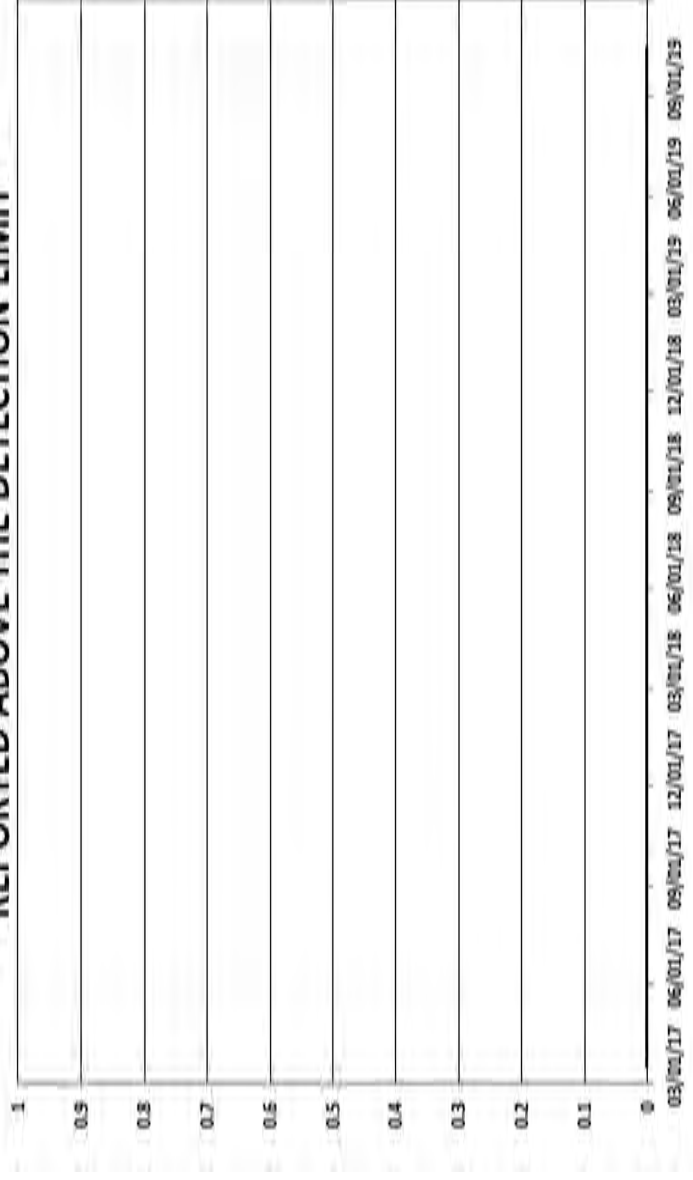
OW-56 MTBE (mg/L)



OW-56 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



OW-56 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





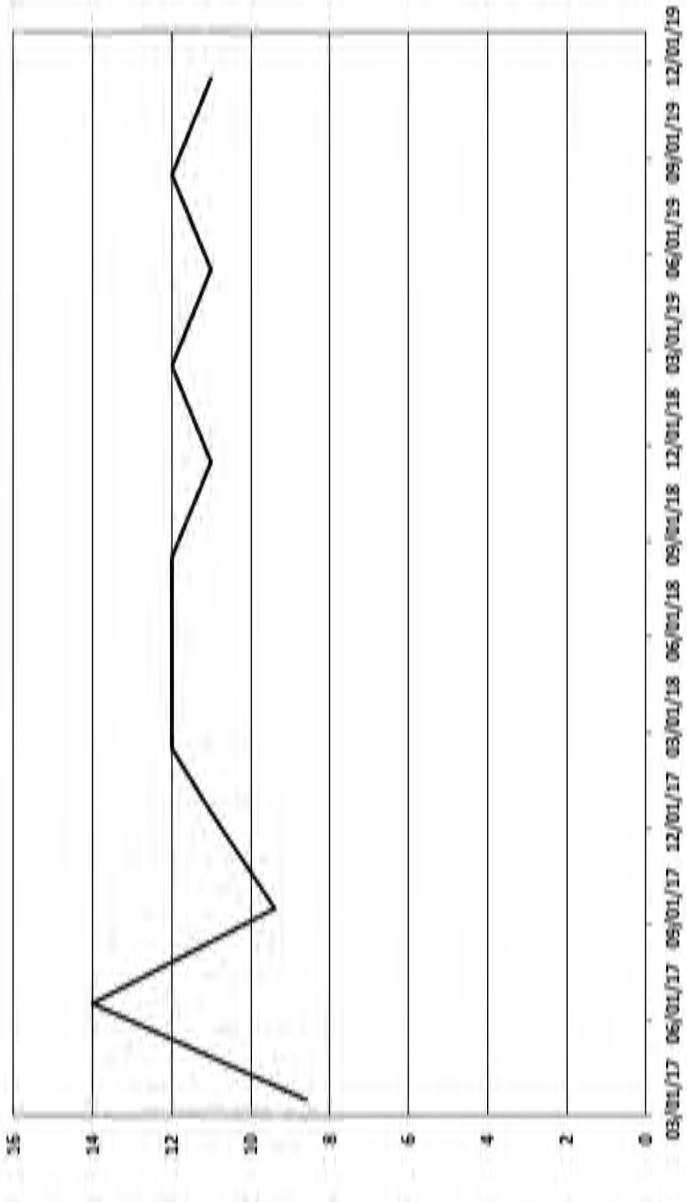
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Laramie, Wyoming 82070  
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BTEX & MTBE THROUGH 2019 - WELL OW-56		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

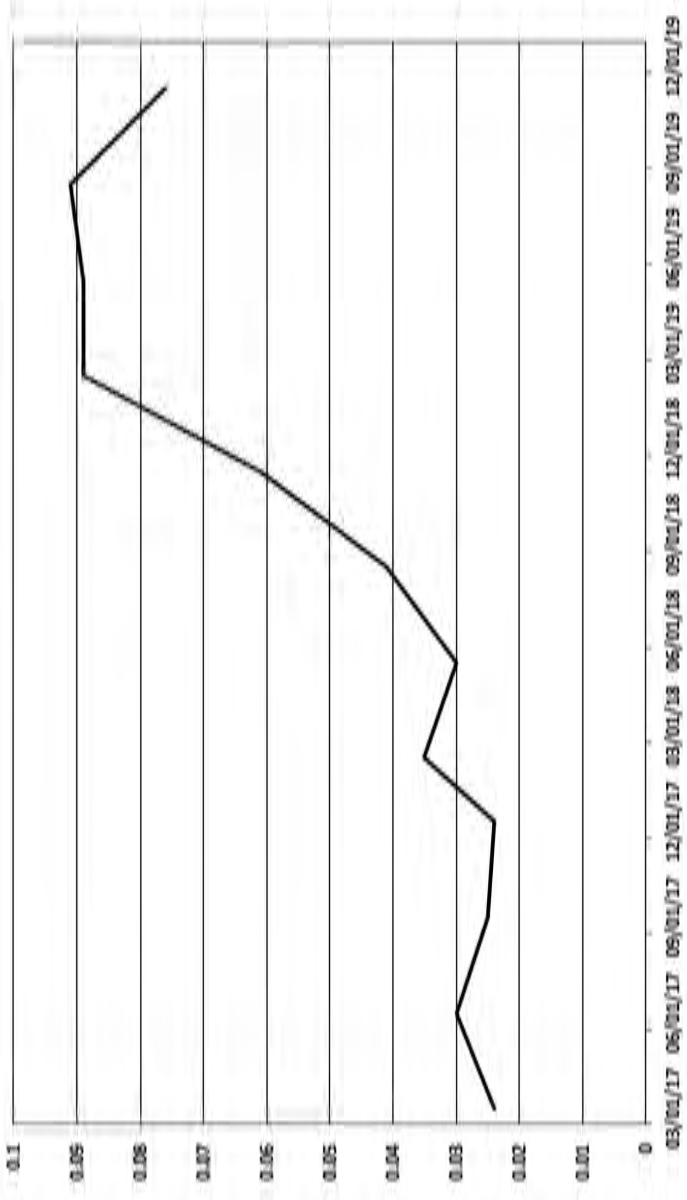
FIGURE 16.9



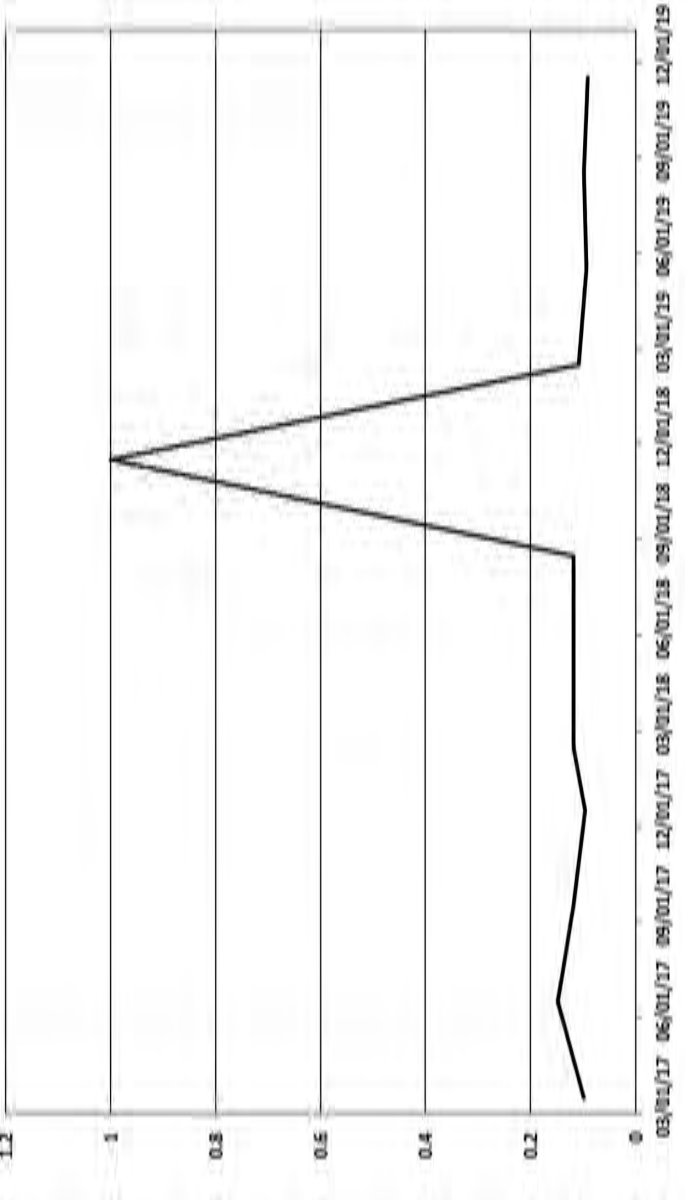
OW-57 BENZENE (mg/L)



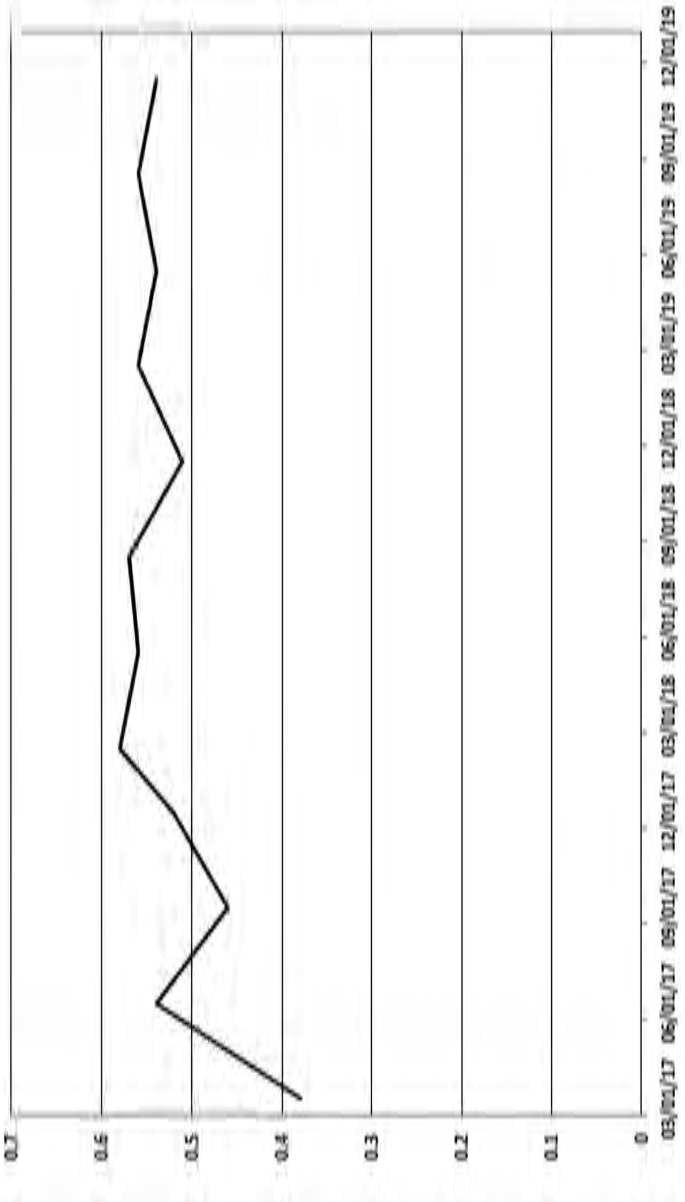
OW-57 TOLUENE (mg/L)



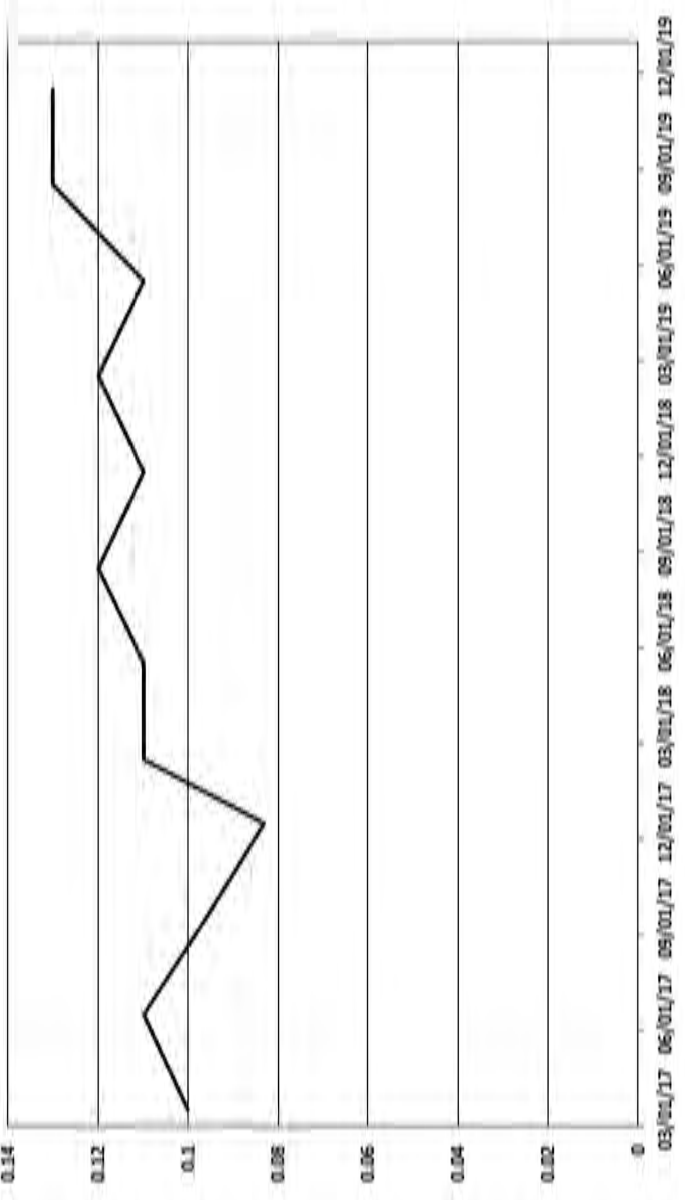
OW-57 MTBE (mg/L)



OW-57 ETHYLBENZENE (mg/L)



OW-57 TOTAL XYLENES (mg/L)





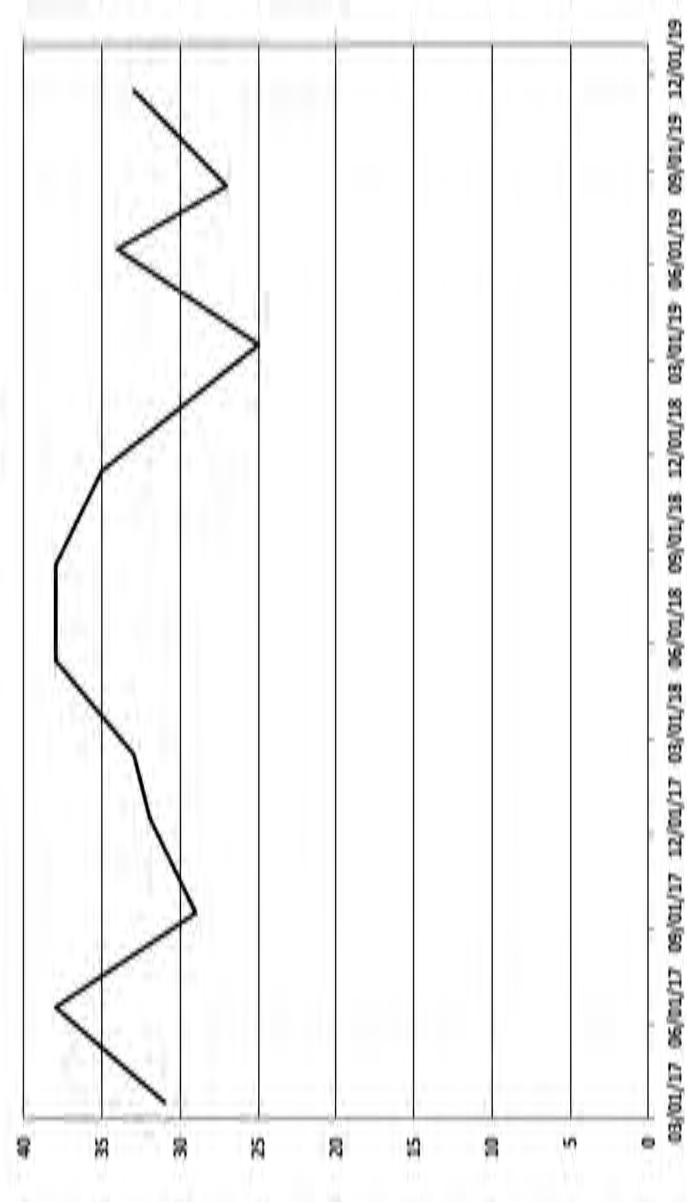
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Fax: 307/457-7233

BTEX & MTBE THROUGH 2019 - WELL OW-57		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Scale: NONE

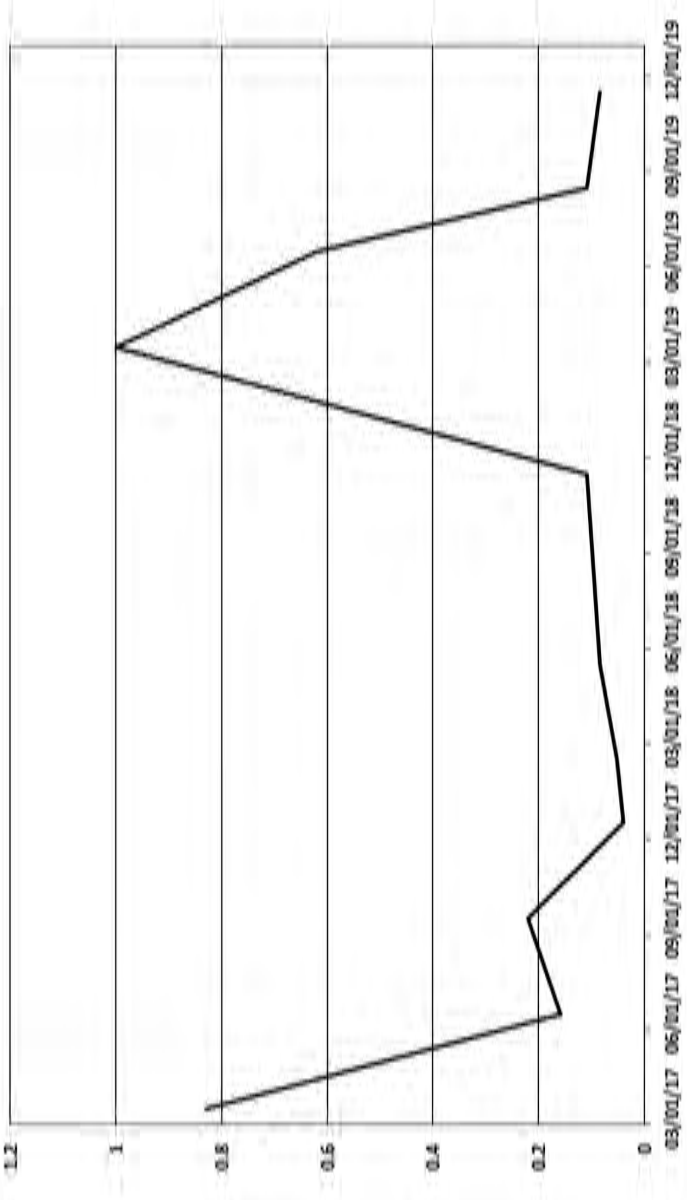
FIGURE 16.10



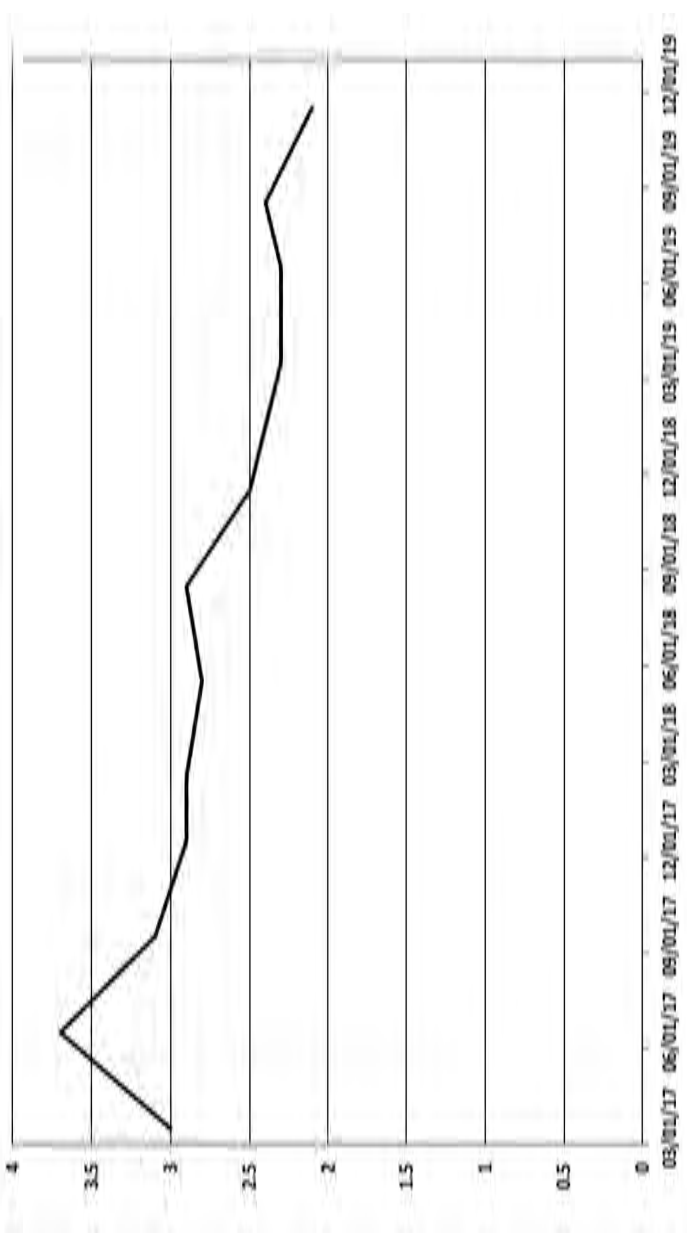
OW-58 BENZENE (mg/L)



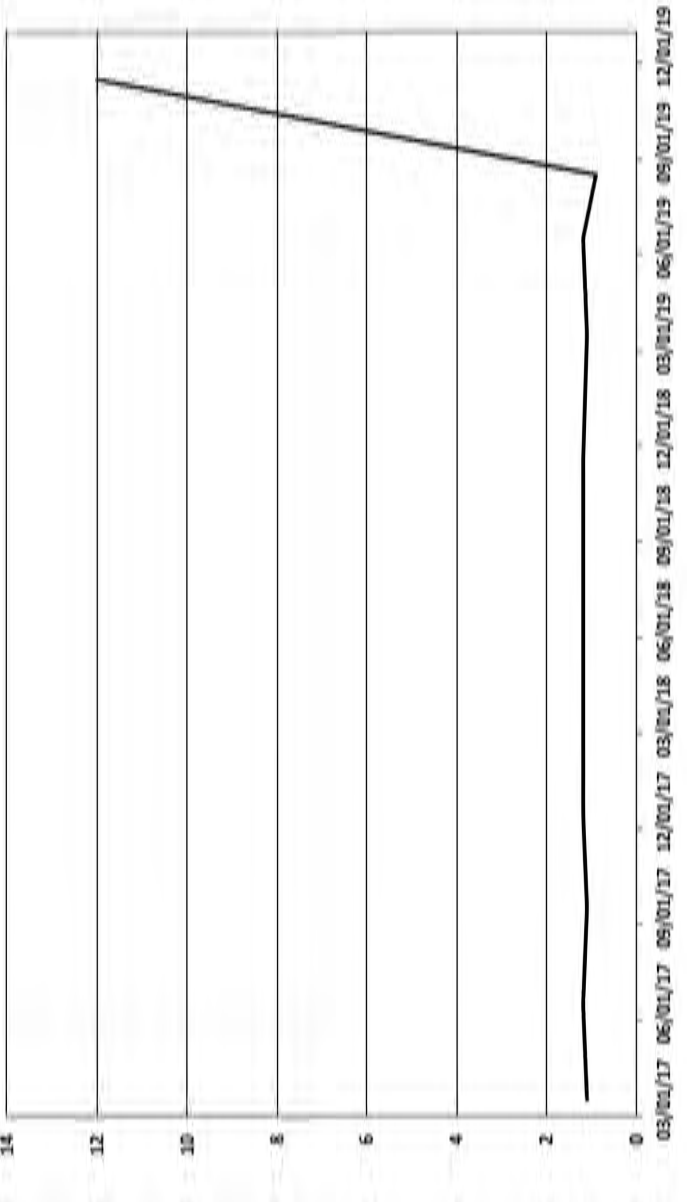
OW-58 TOLUENE (mg/L)



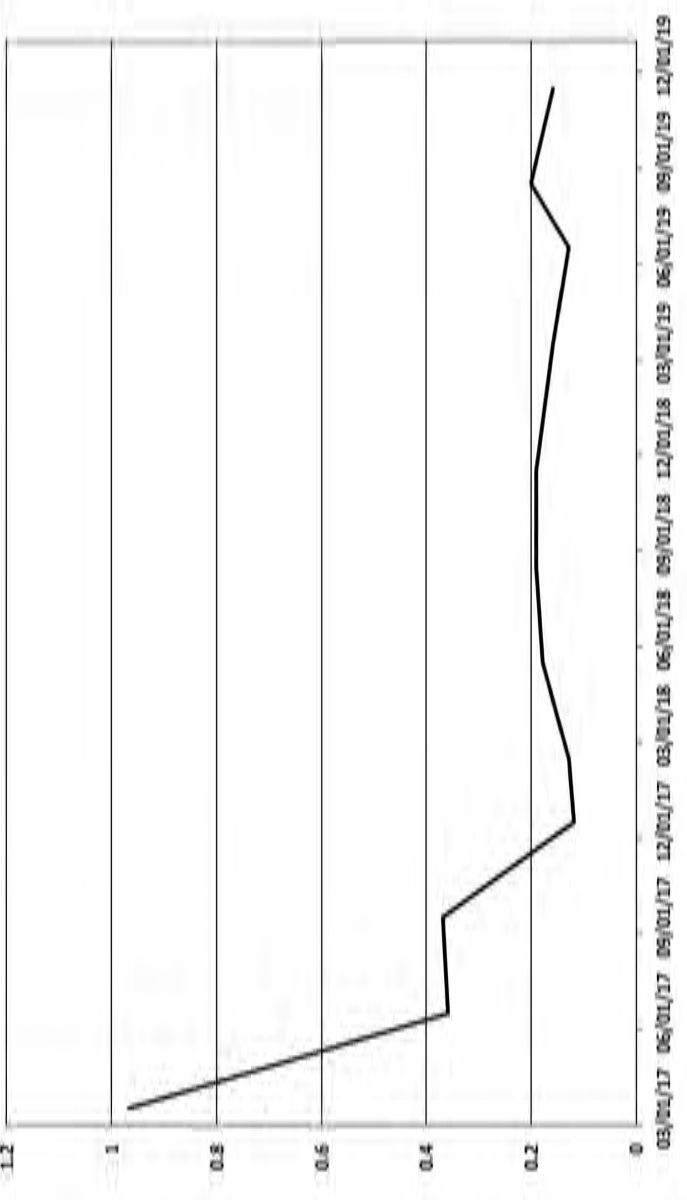
OW-58 MTBE (mg/L)



OW-58 ETHYLBENZENE (mg/L)



OW-58 TOTAL XYLENES (mg/L)





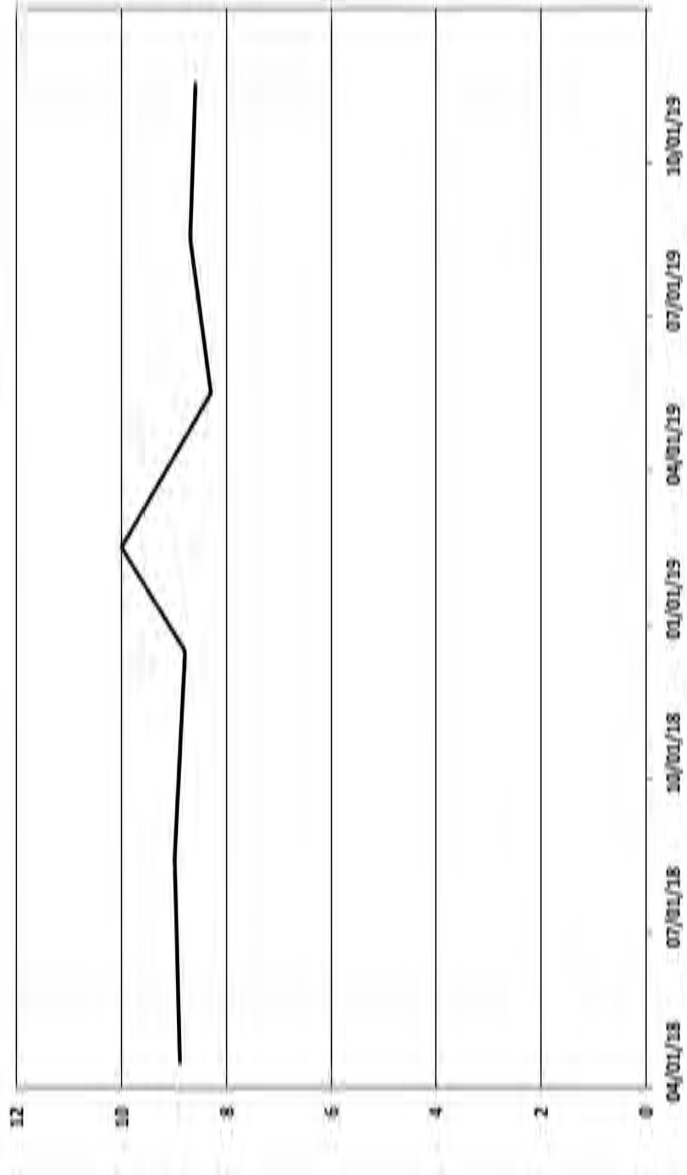
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BTEX & MTBE THROUGH 2019 - WELL OW-58		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

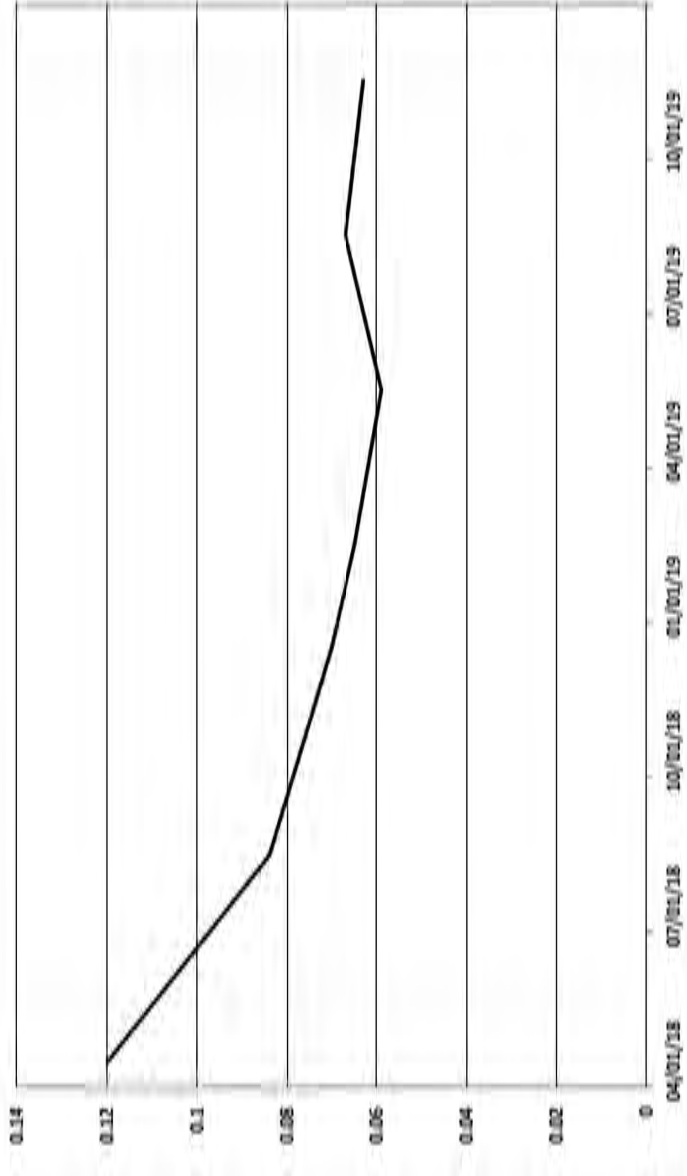
FIGURE 16.11



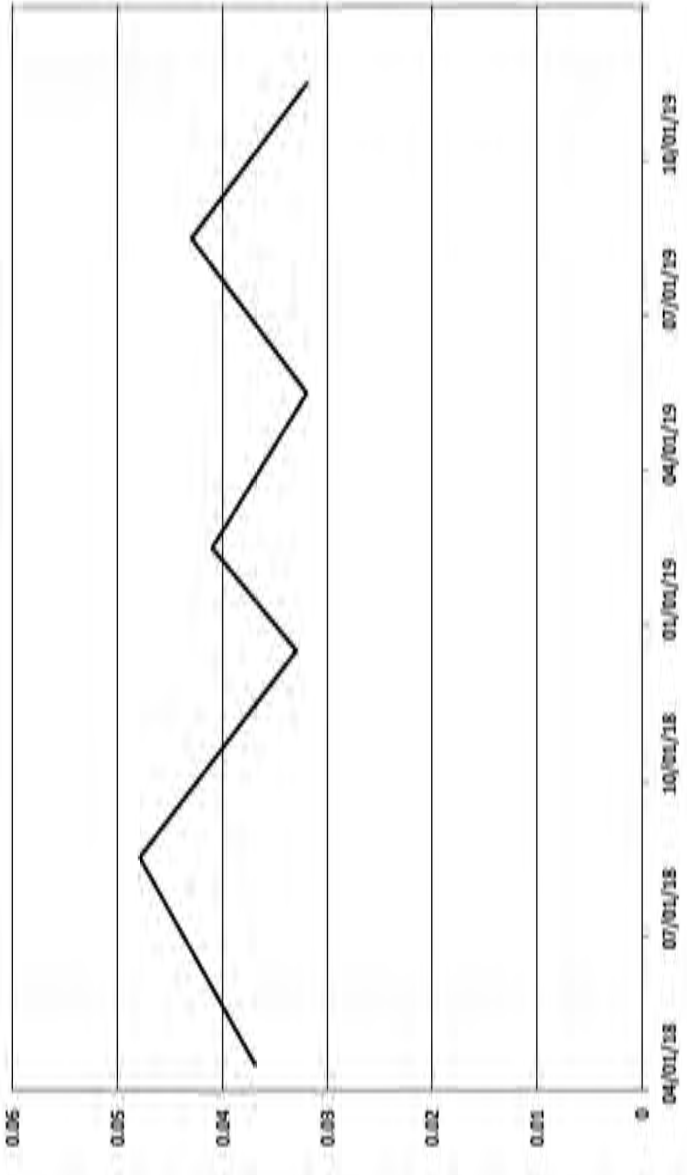
OW-63 BENZENE (mg/L)



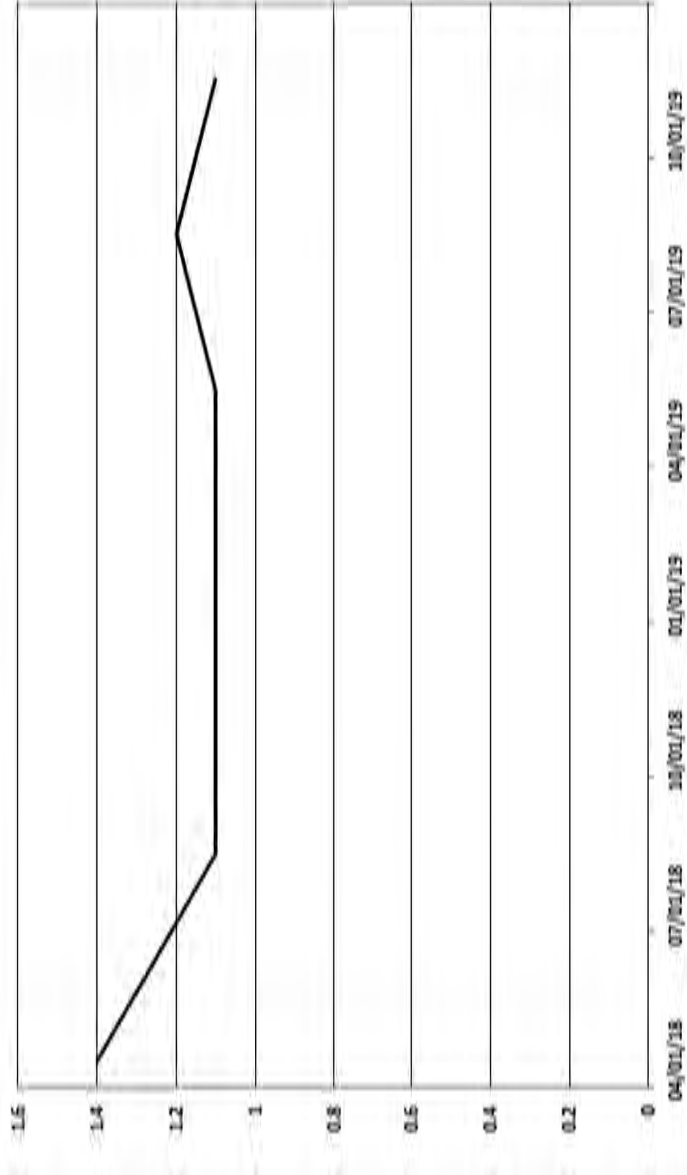
OW-63 TOLUENE (mg/L)



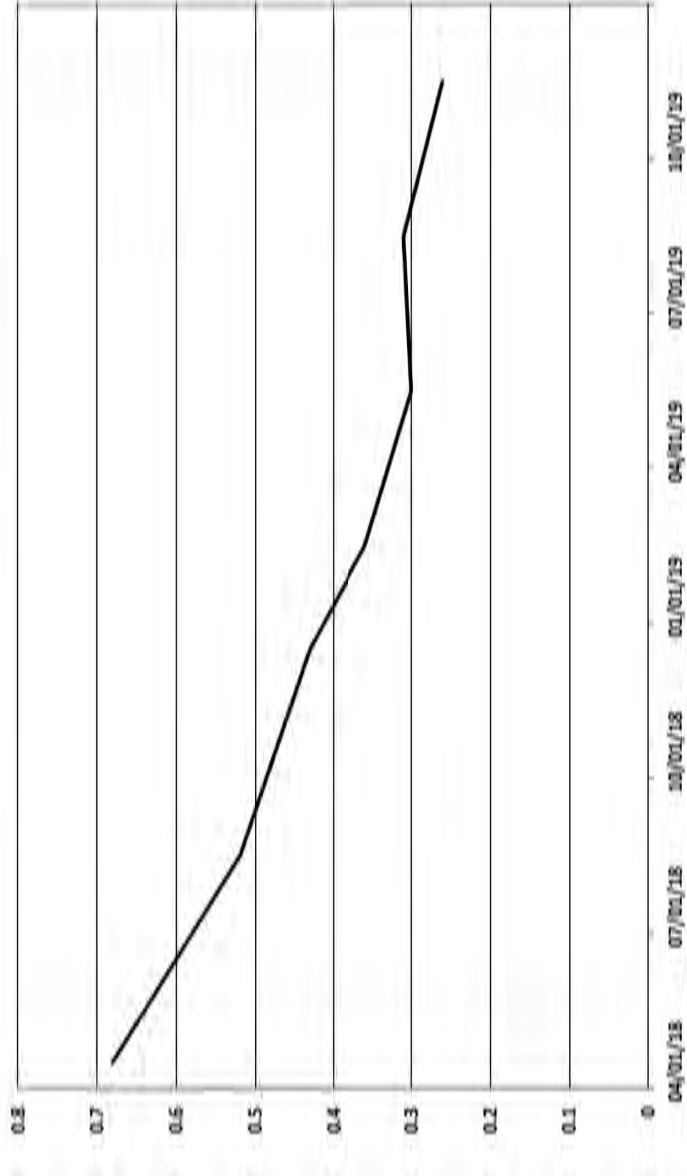
OW-63 MTBE (mg/L)



OW-63 ETHYLBENZENE (mg/L)



OW-63 TOTAL XYLENES (mg/L)





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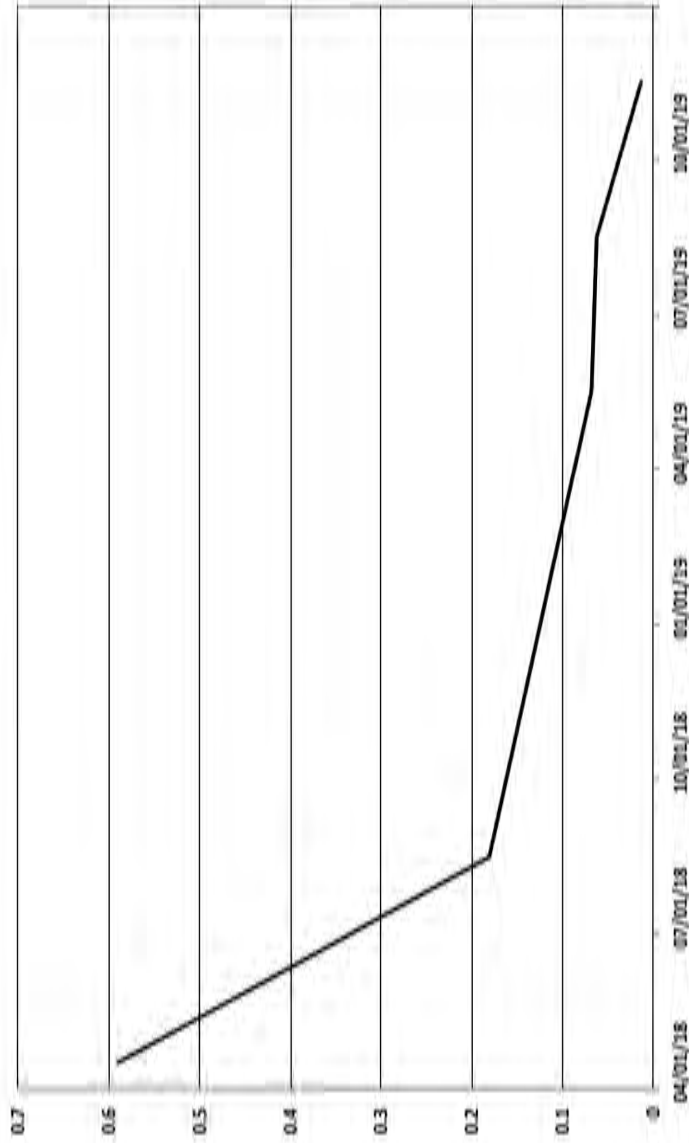
**BTEX & MTBE THROUGH 2019 - WELL OW-63**

**GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO**

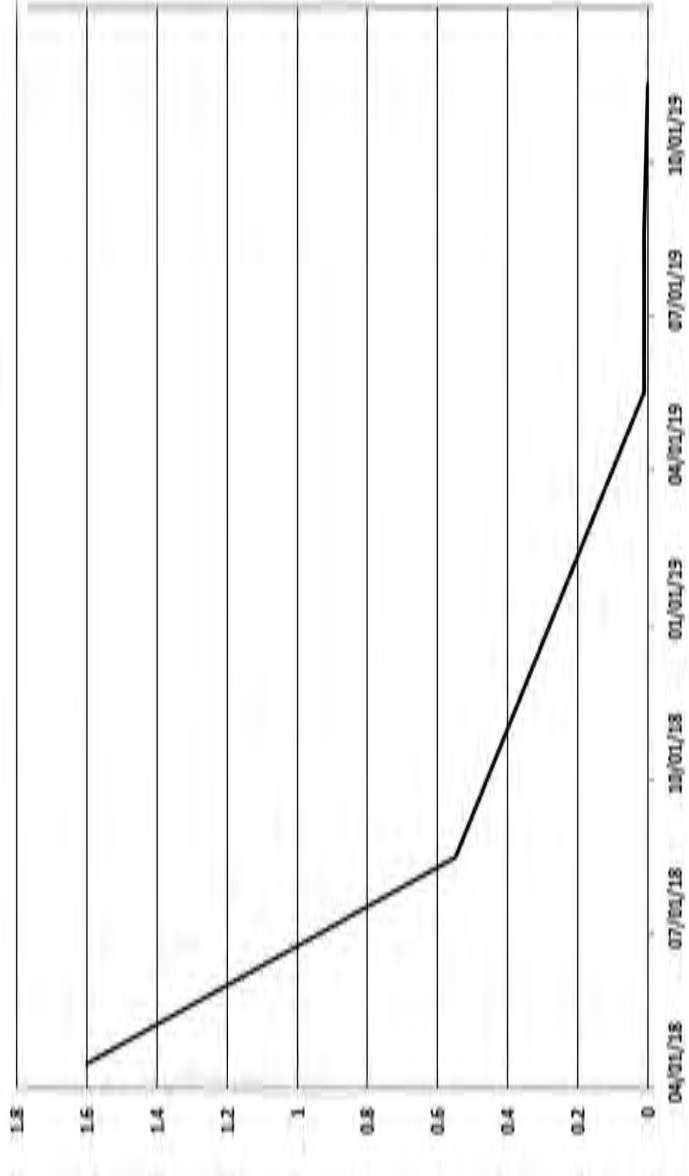
FIGURE 16.12



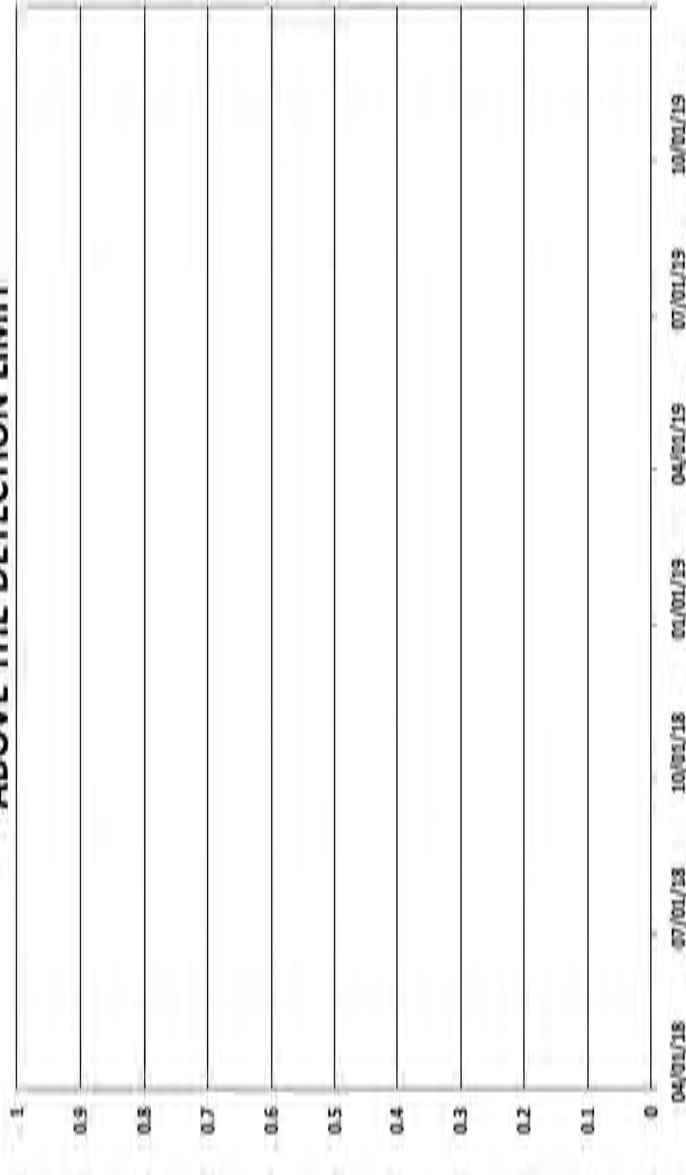
OW-64 BENZENE (mg/L)



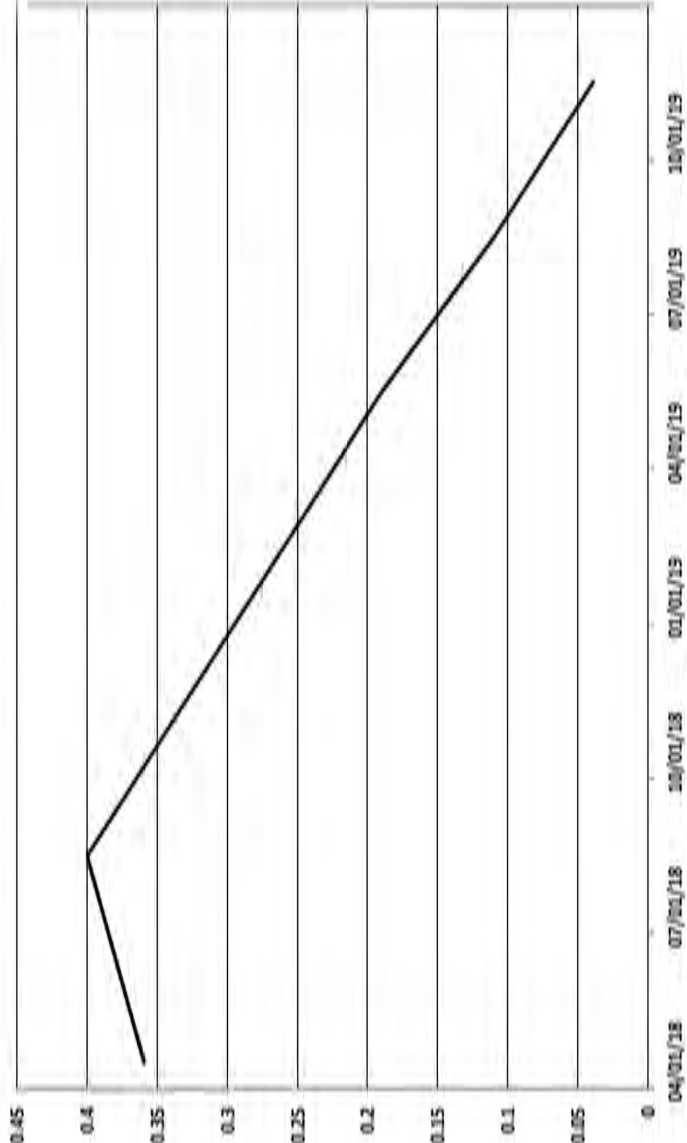
OW-64 TOLUENE (mg/L)



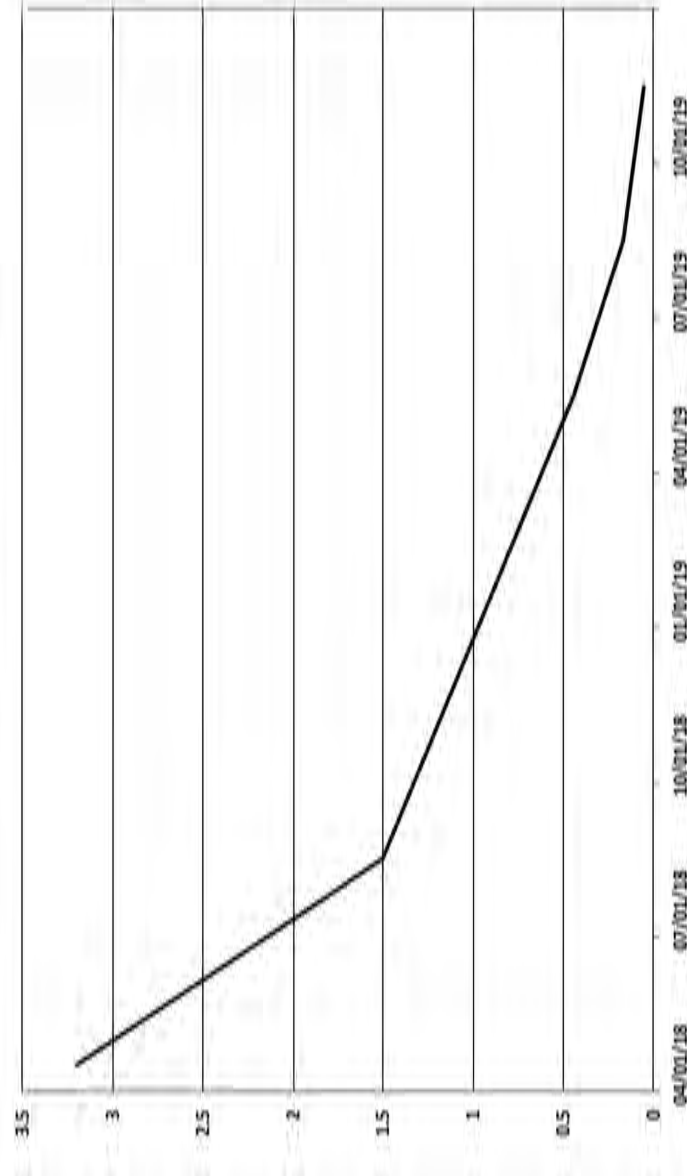
OW-64 MTBE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-64 ETHYLBENZENE (mg/L)



OW-64 TOTAL XYLENES (mg/L)





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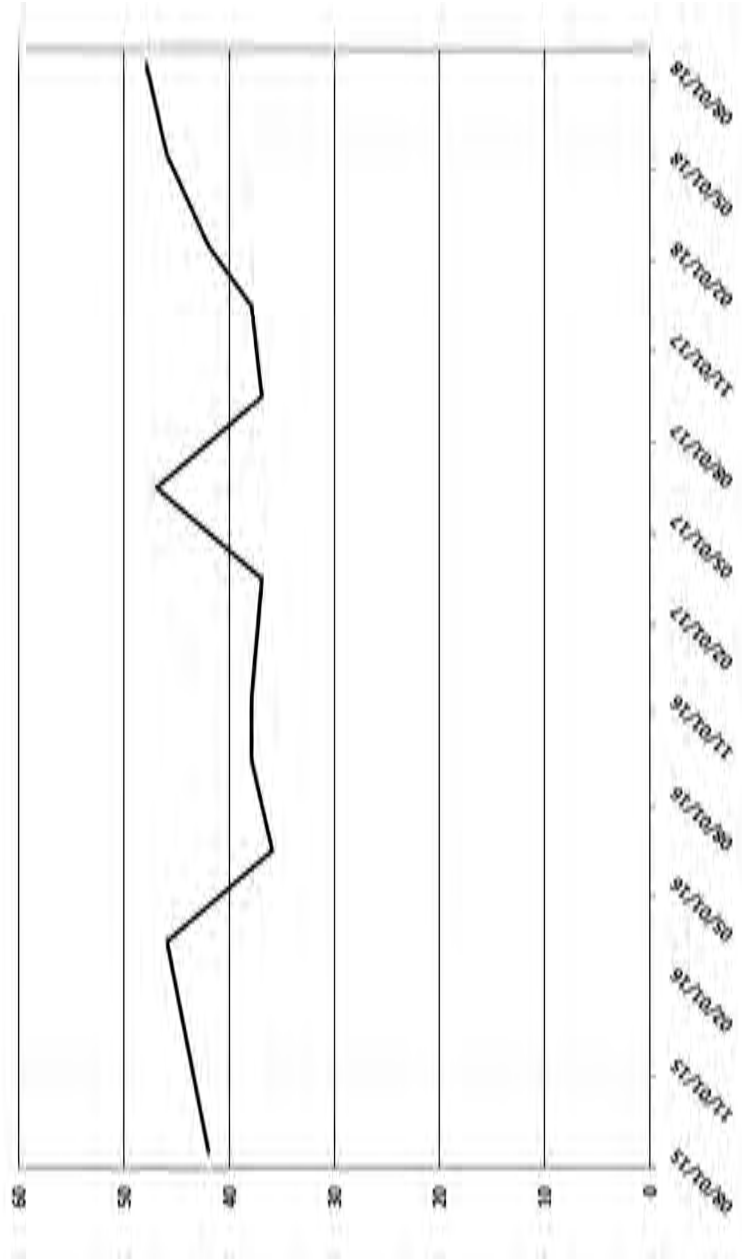
**BTEX & MTBE THROUGH 2019 - WELL OW-64**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

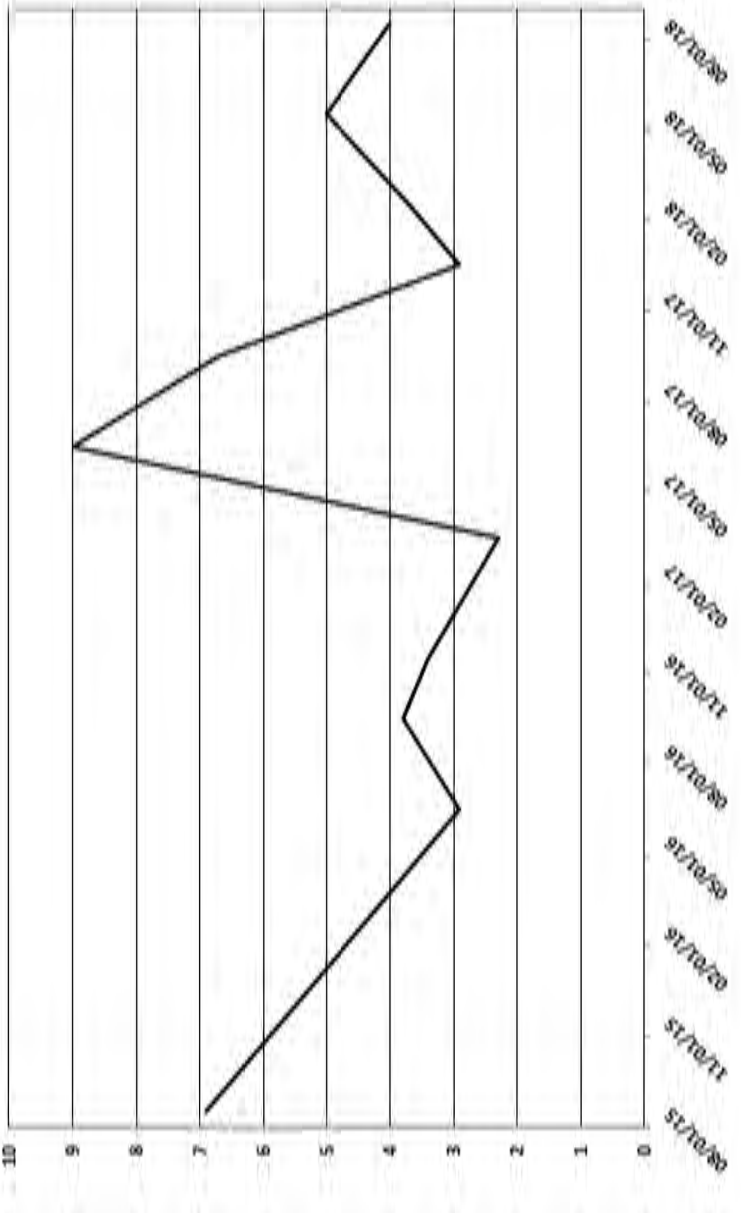
FIGURE 16.13



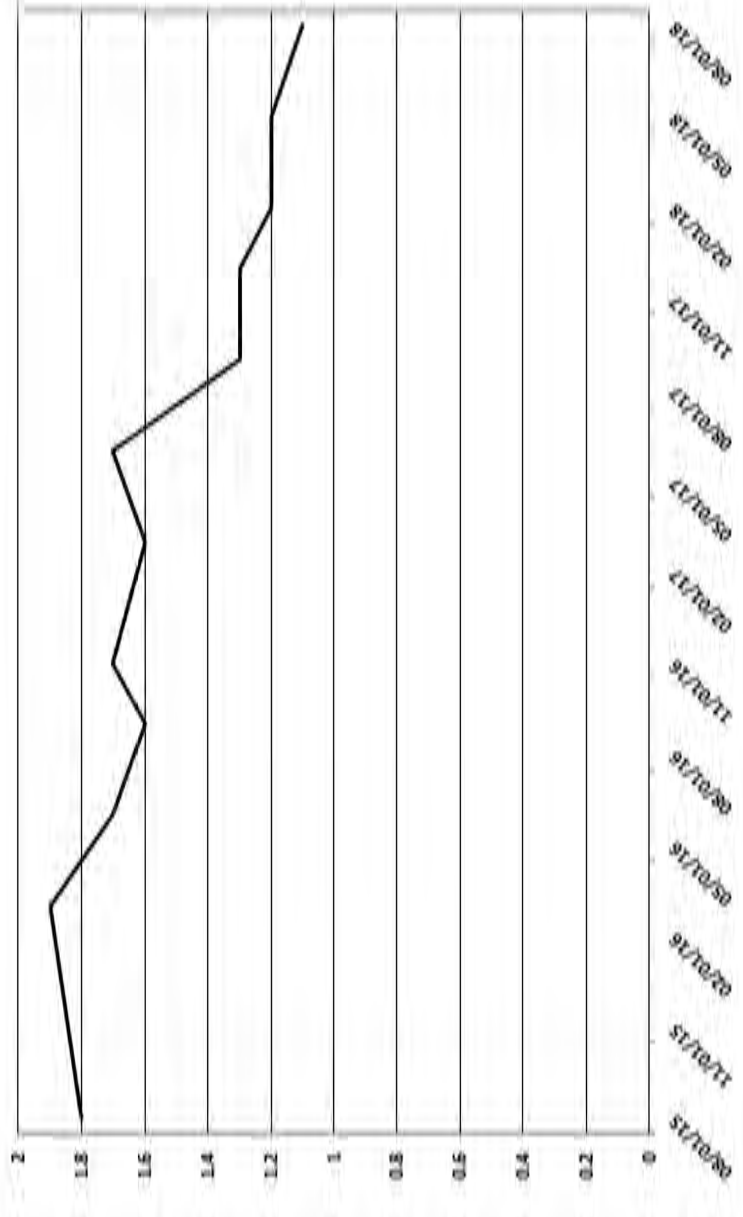
RW-2 BENZENE (mg/L)



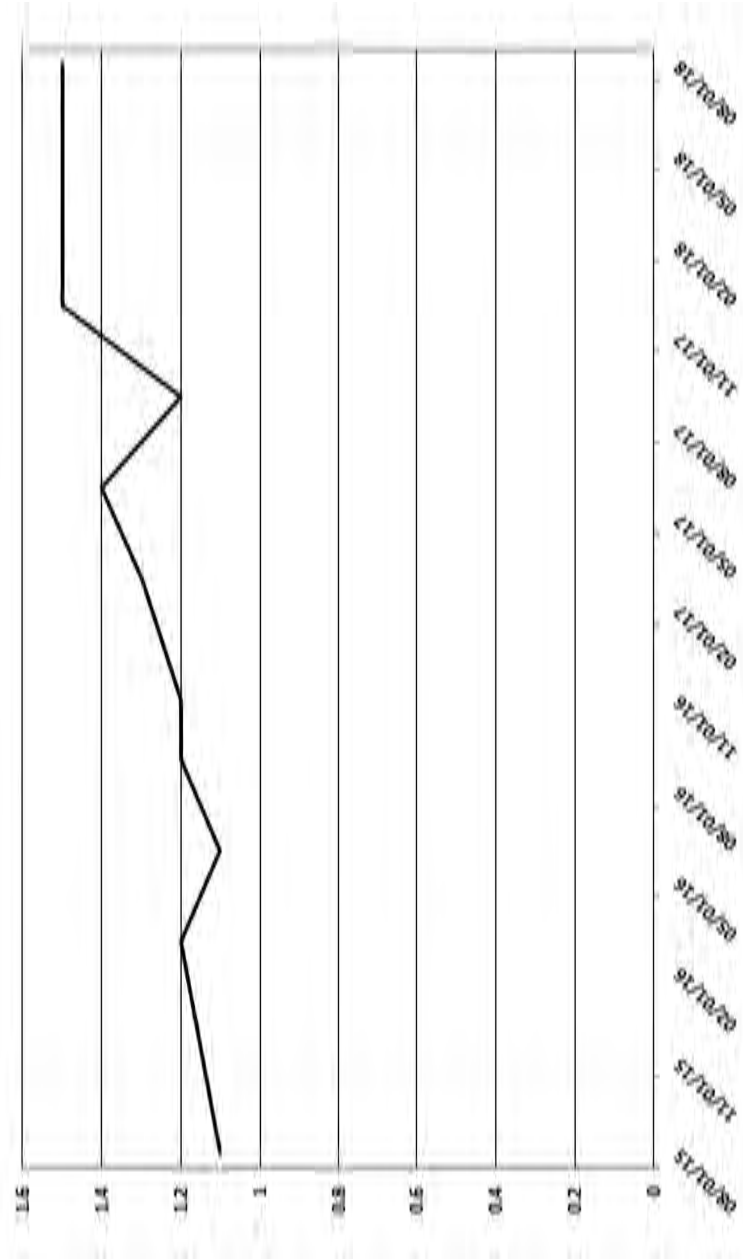
RW-2 TOLUENE (mg/L)



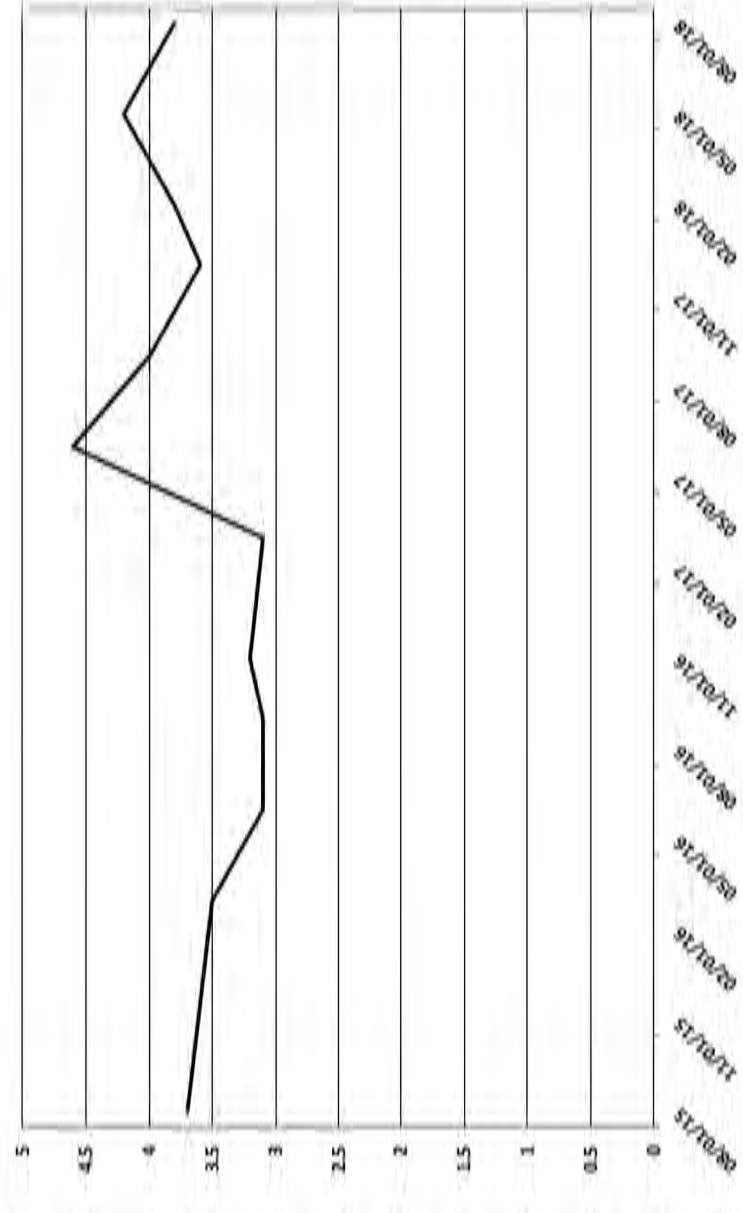
RW-2 MTBE (mg/L)



RW-2 ETHYLBENZENE (mg/L)



RW-2 TOTAL XYLENES (mg/L)





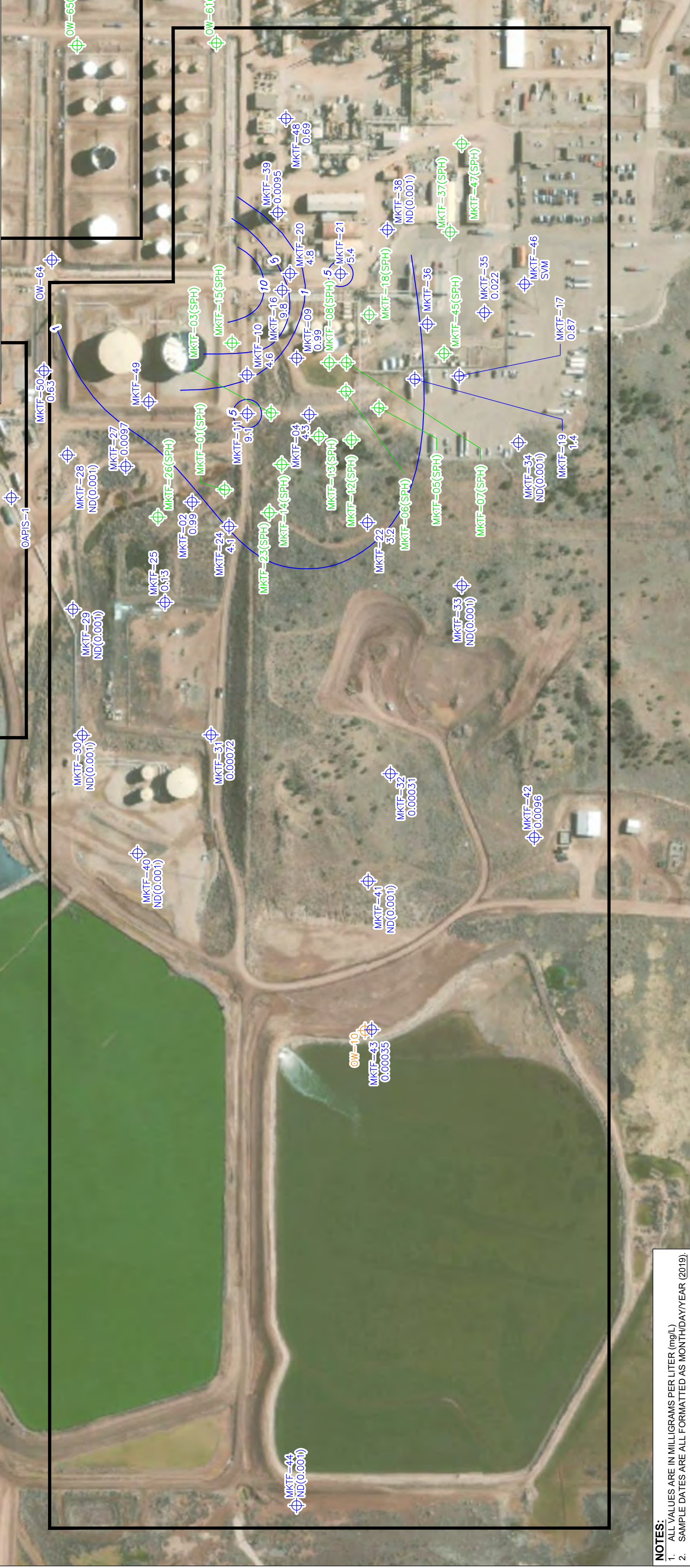
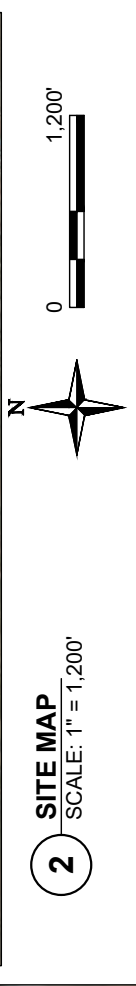
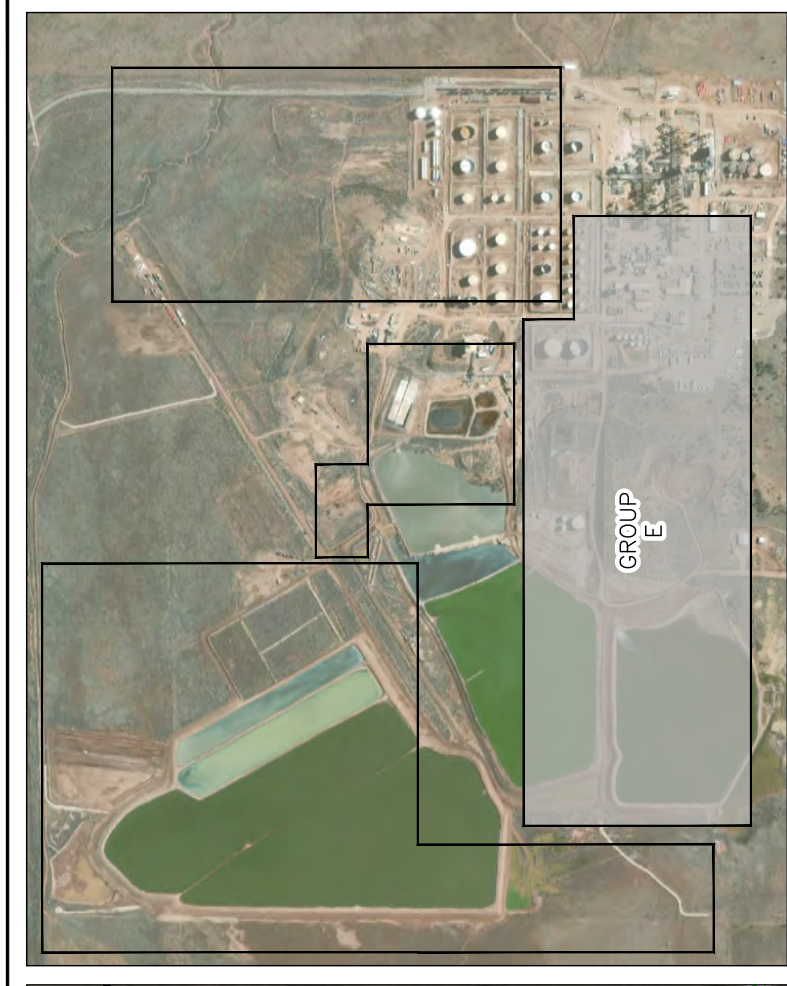
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**BTEX & MTBE THROUGH 2019 - WELL RW-2**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

FIGURE 16.14





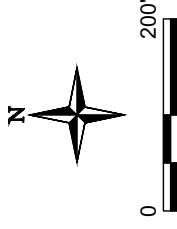
**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).

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

**EXPLANATION**

- SONSOLA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH



**FIGURE 17A**

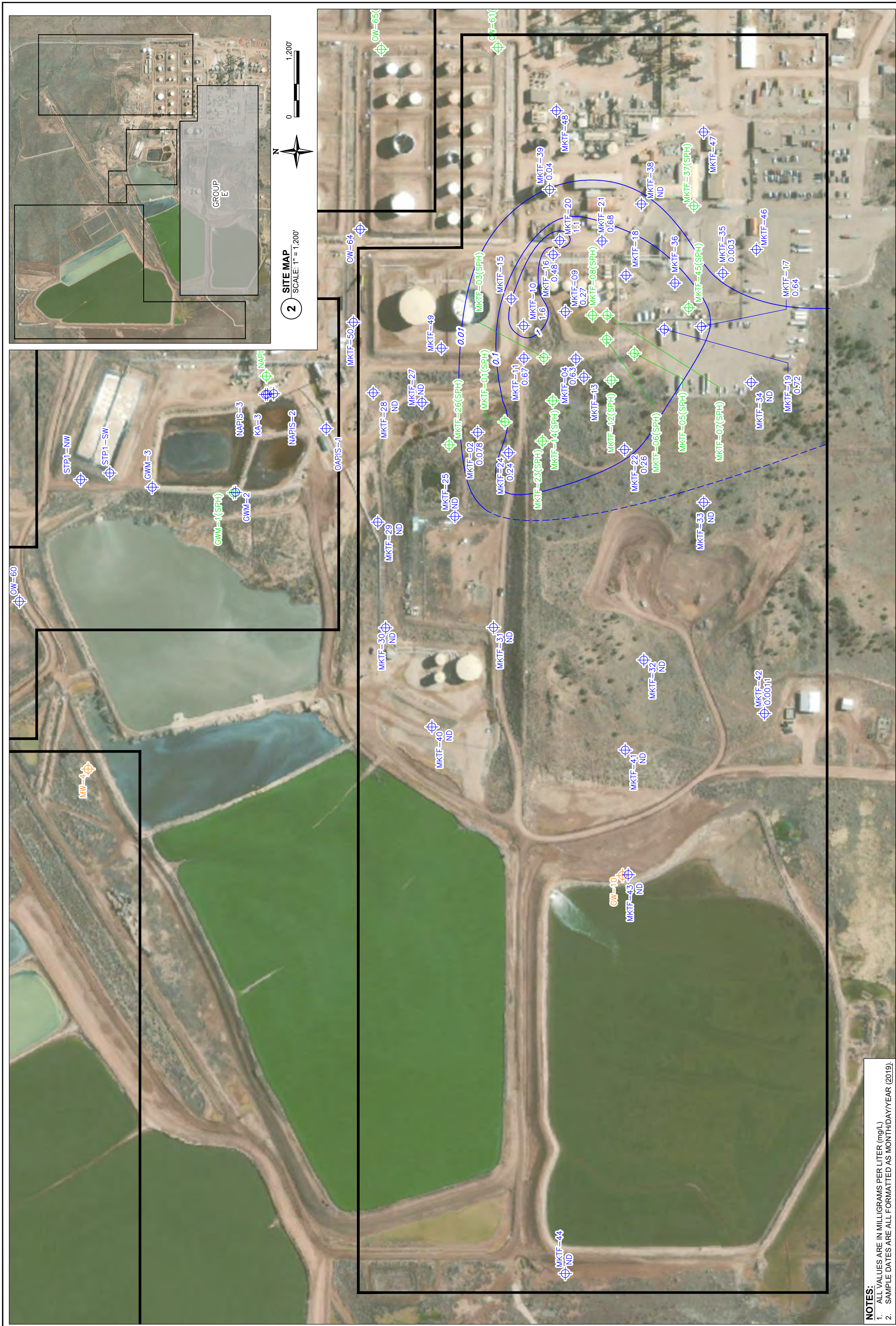
**GROUP E BENZENE RESULTS (AUGUST 2019)**

**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**

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Laramie, Wyoming 82070  
(307) 745-7223

Drawn By: REP Checked By: CF Scale: 1" = 100' Date: 9/4/20 File: 697-GROUPE-BENZENE

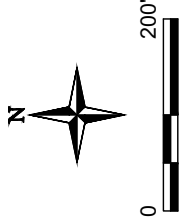




**EXPLANATION**

- SONSELA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH



**FIGURE 17B**

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**GROUP E ETHYLBENZENE RESULTS (AUGUST 2019)**

**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**

Drawn By: REP Checked By: CF

Scale: 1" = 100'

Date: 9/4/20

File: 697-GROUPE-ETHYLBENZENE









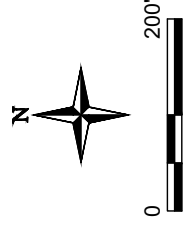
**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).

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**EXPLANATION**

- SONSOLA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH



**FIGURE 17D**

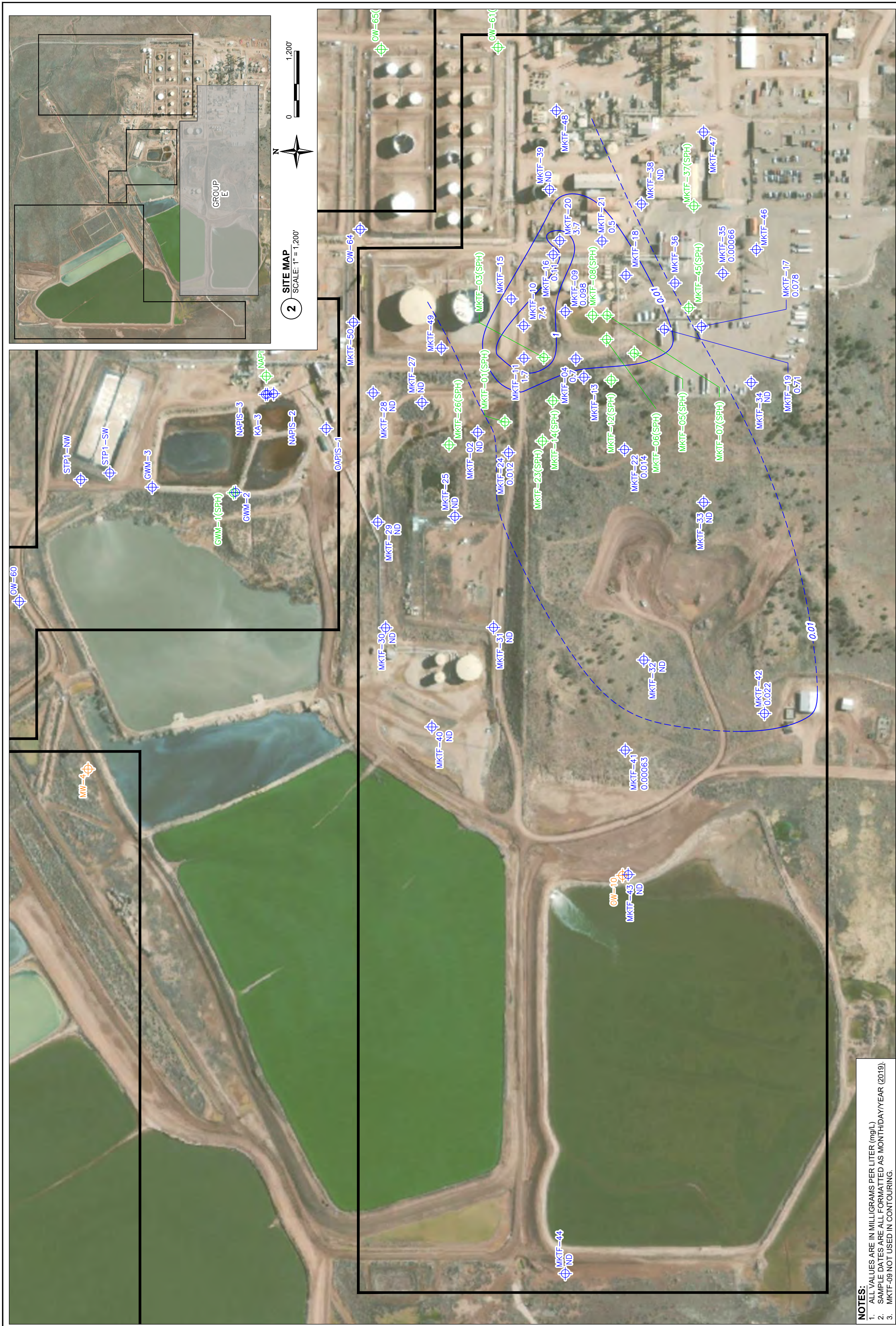
**GROUP E TOLUENE RESULTS (AUGUST 2019)**

**MARATHON PETROLEUM CORP.**  
**GALLUP REFINERY**  
**GALLUP, NEW MEXICO**

**Trihydro**  
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Drawn By: REP Checked By: CF Scale: 1" = 100' Date: 9/4/20 File: 697-GROUPE-TOLUENE





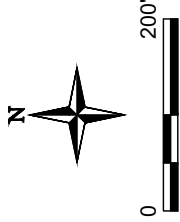
**NOTES:**  
1. ALL VALUES ARE IN MILLIGRAMS PER LITER (mg/L)  
2. SAMPLE DATES ARE ALL FORMATTED AS MONTH/DAY/YEAR (2019).  
3. MKTF-09 NOT USED IN CONTOURING.

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

**EXPLANATION**

- SONSOLA WELL AND DESIGNATION
- CHINLE/ALLUVIUM INTERFACE WELL AND DESIGNATION
- SPH MONITORING WELL AND DESIGNATION
- RECOVERY WELL AND DESIGNATION
- SINGLE-PHASE HYDROCARBON

- OW-10
- OW-11
- MKTF-45
- RW-6
- SPH

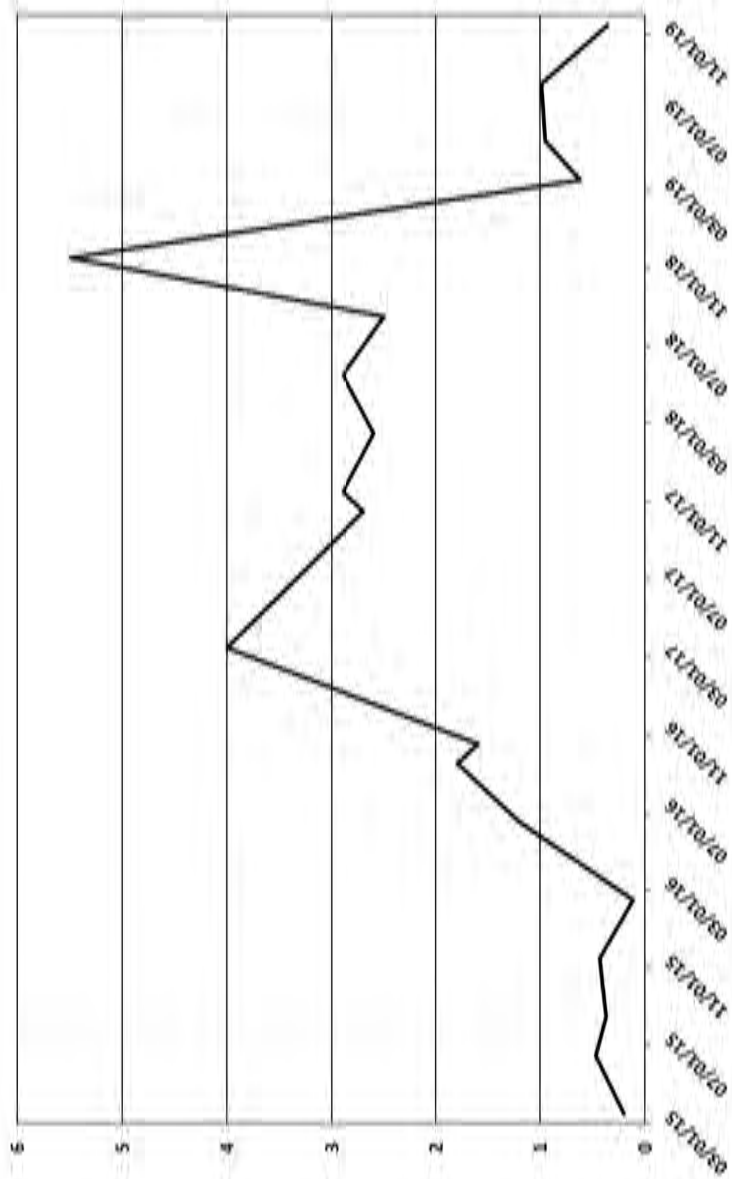


**FIGURE 17E**

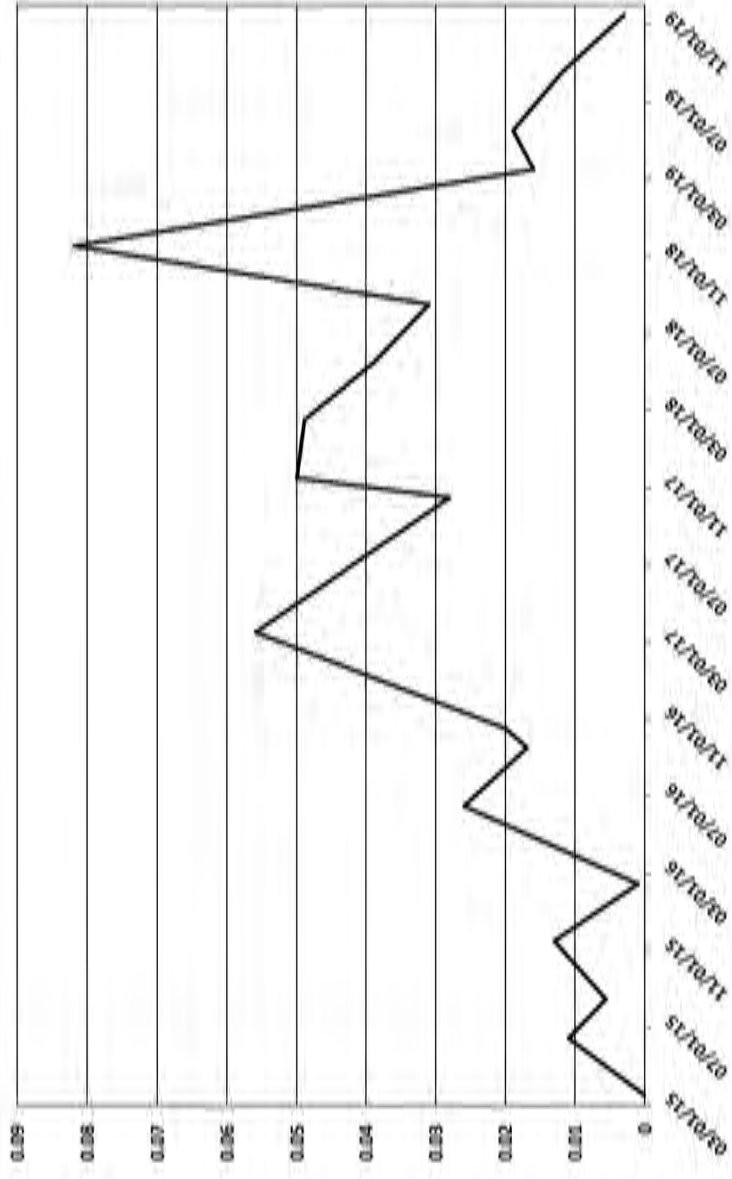
GROUP E XYLENES, TOTAL RESULTS (AUGUST 2019)			
MARATHON PETROLEUM CORP. GALLUP REFINERY GALLUP, NEW MEXICO			
Drawn By: REP	Checked By: CF	Scale: 1" = 100'	Date: 9/4/20
File: 697-GROUPE-XYLENES			



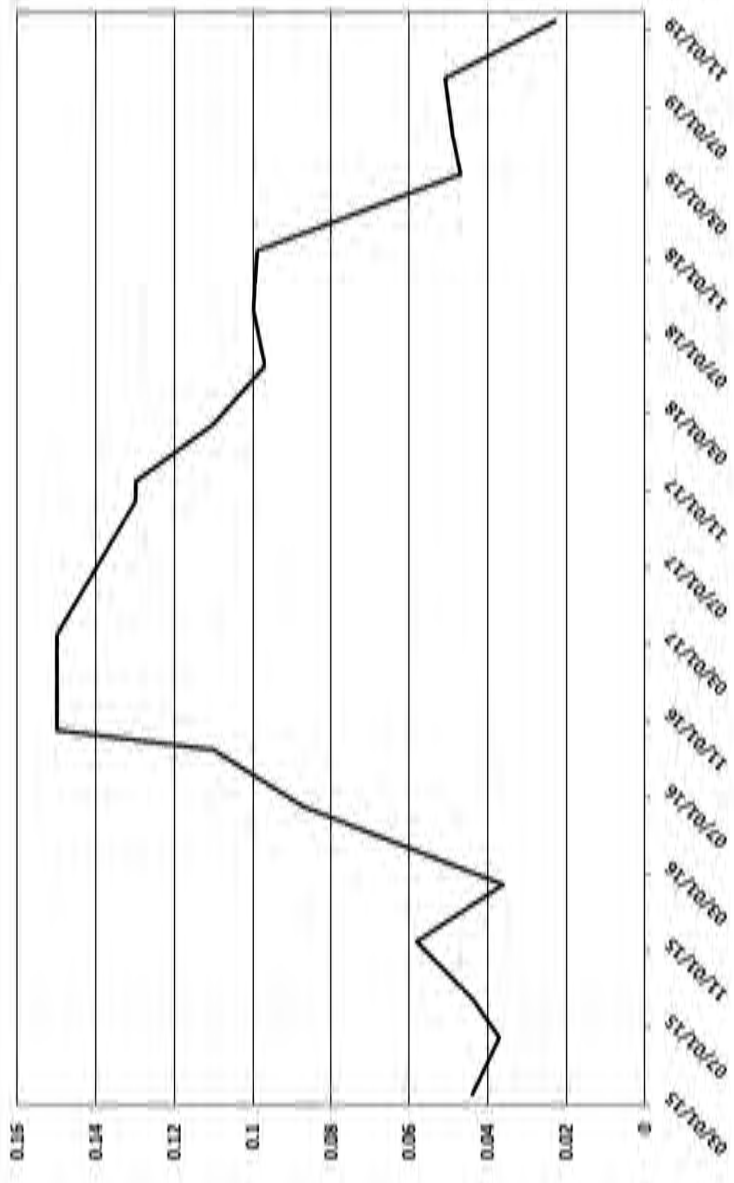
MKTF-02 BENZENE (mg/L)



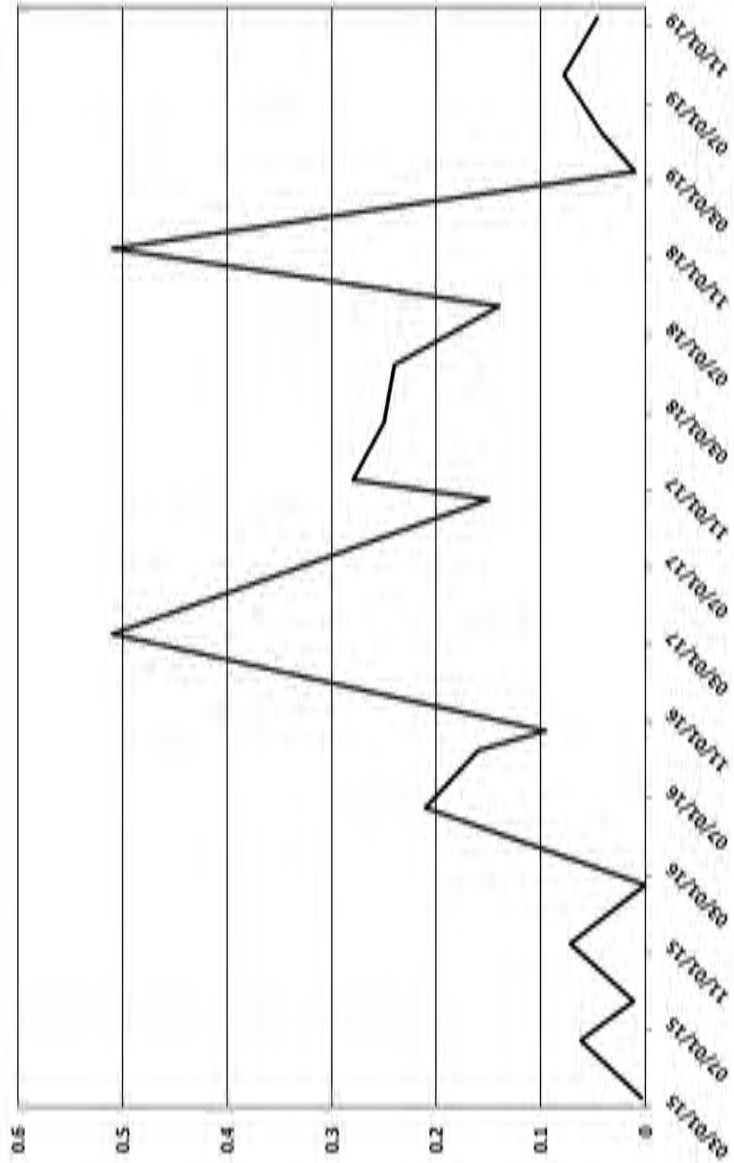
MKTF-02 TOLUENE (mg/L)



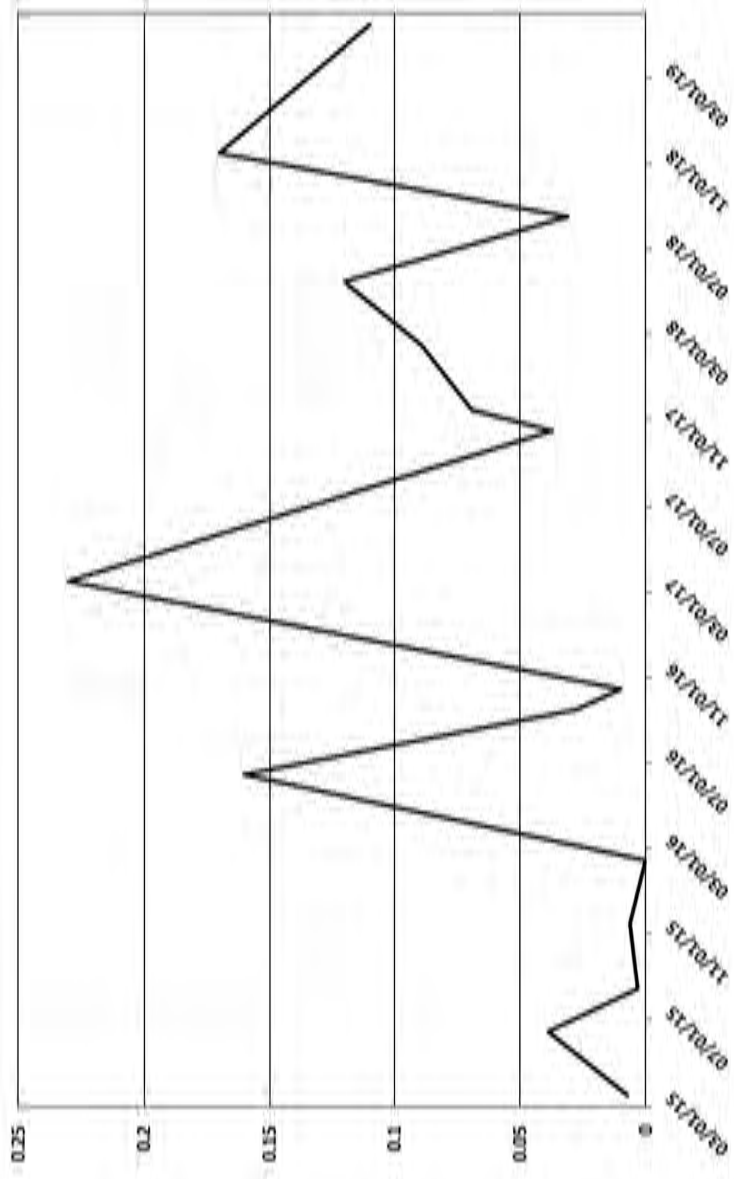
MKTF-02 MTBE (mg/L)



MKTF-02 ETHYLBENZENE (mg/L)

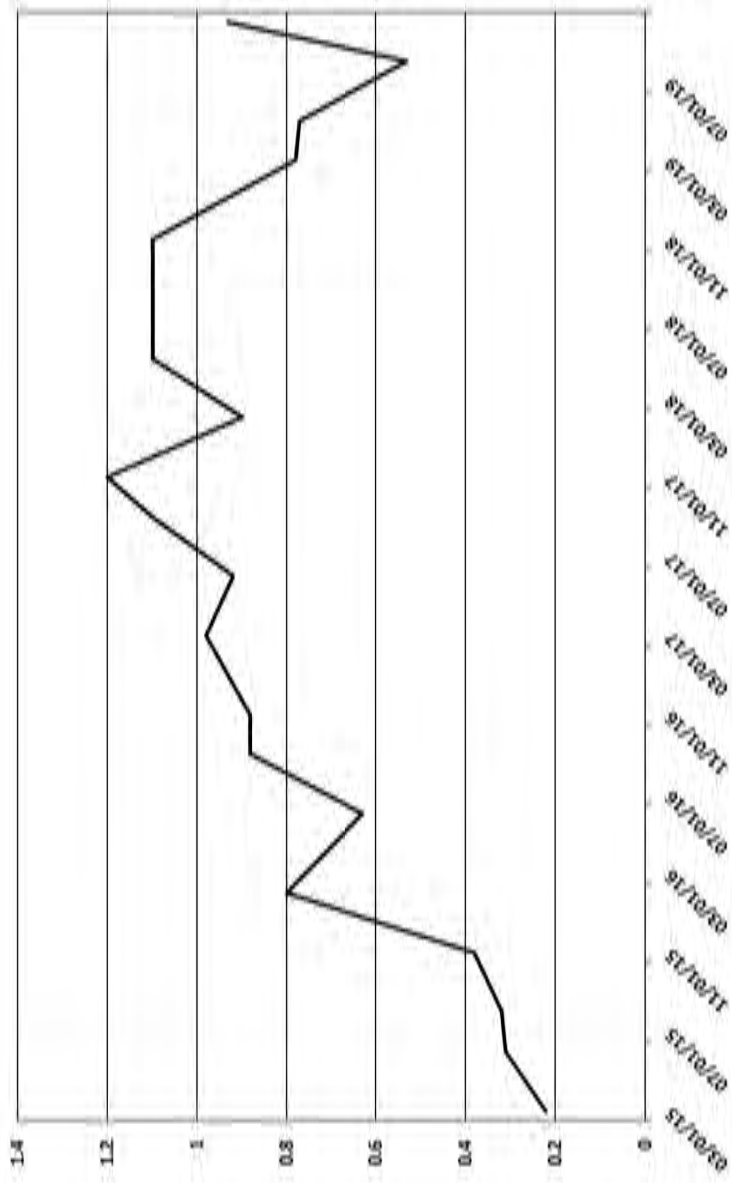


MKTF-02 TOTAL XYLENES (mg/L)

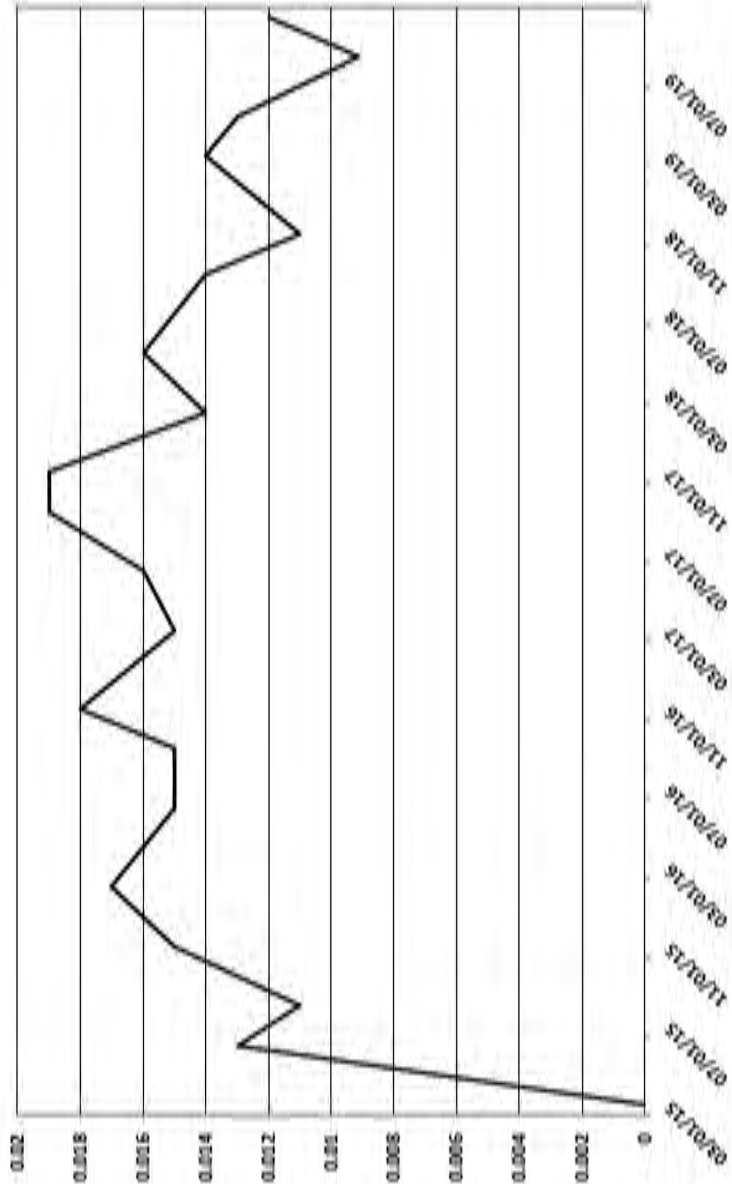




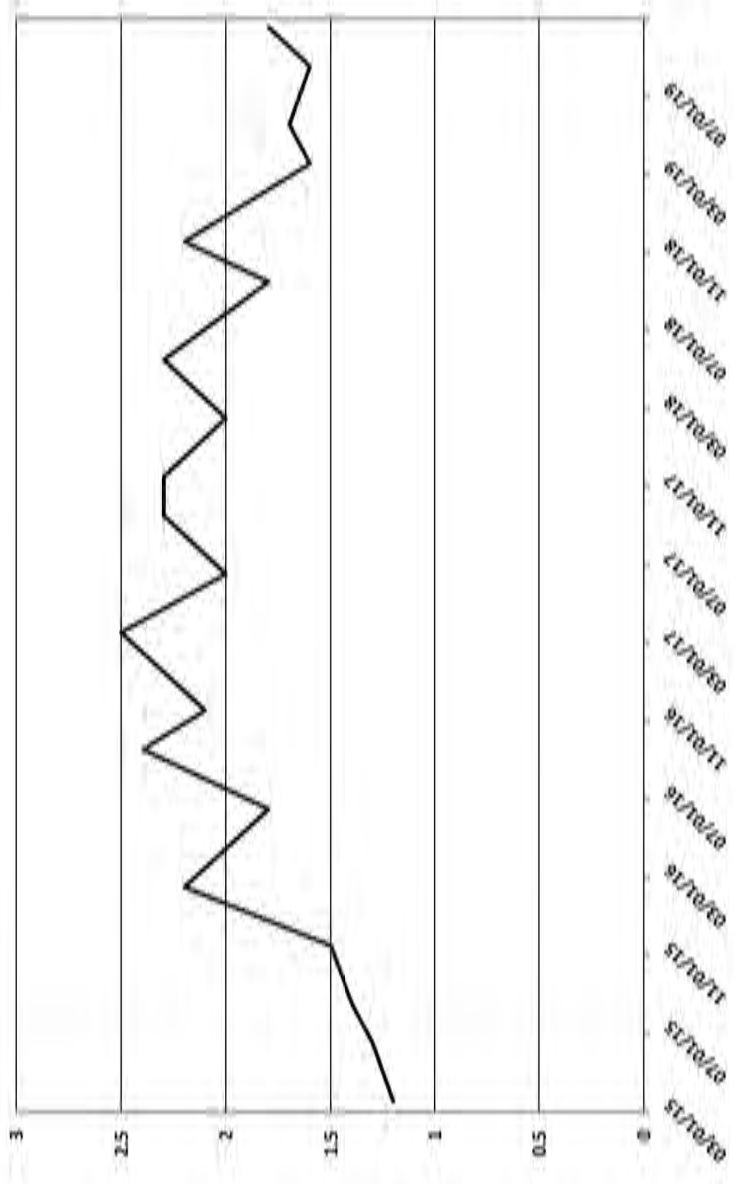
MKTF-04 BENZENE (mg/L)



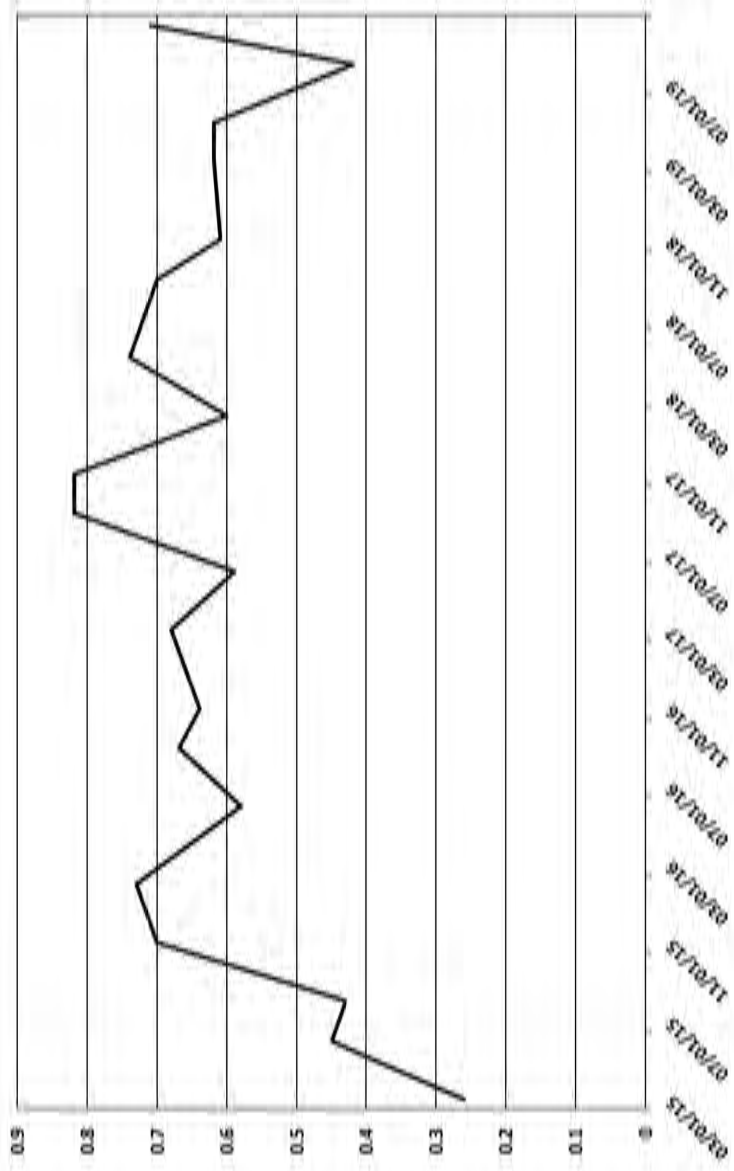
MKTF-04 TOLUENE (mg/L)



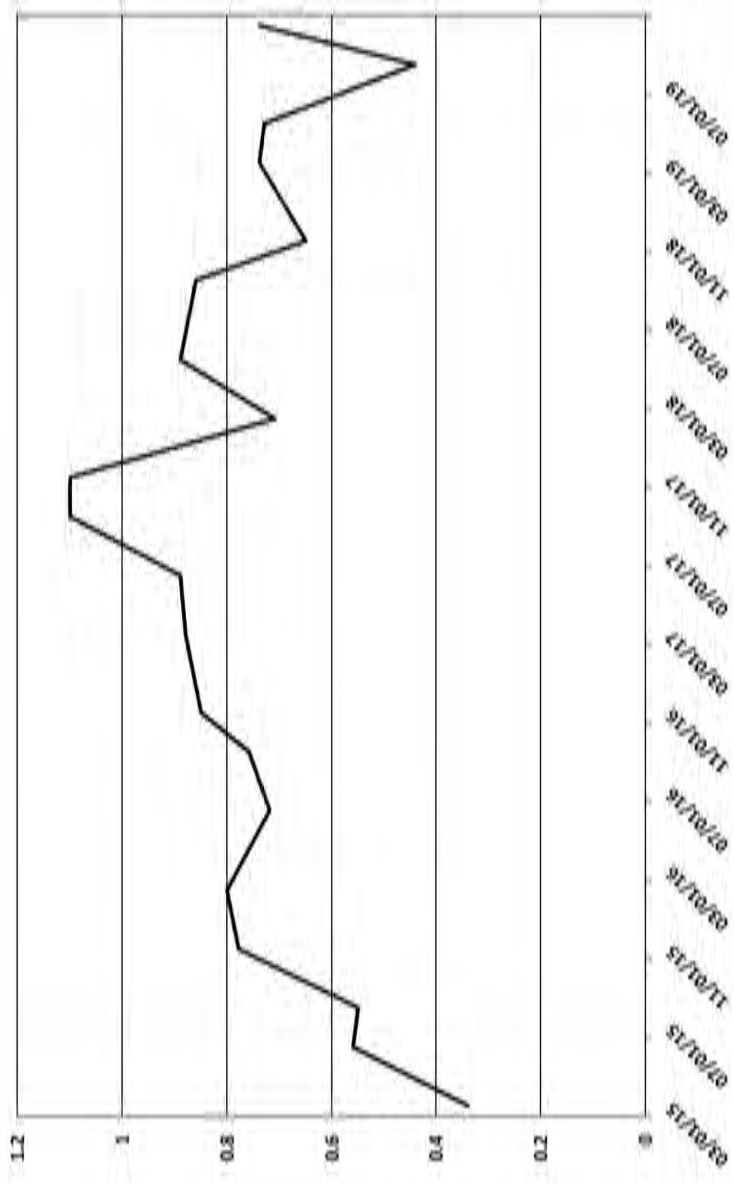
MKTF-04 MTBE (mg/L)



MKTF-04 ETHYLBENZENE (mg/L)



MKTF-04 TOTAL XYLENES (mg/L)





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FIGURE 18.2

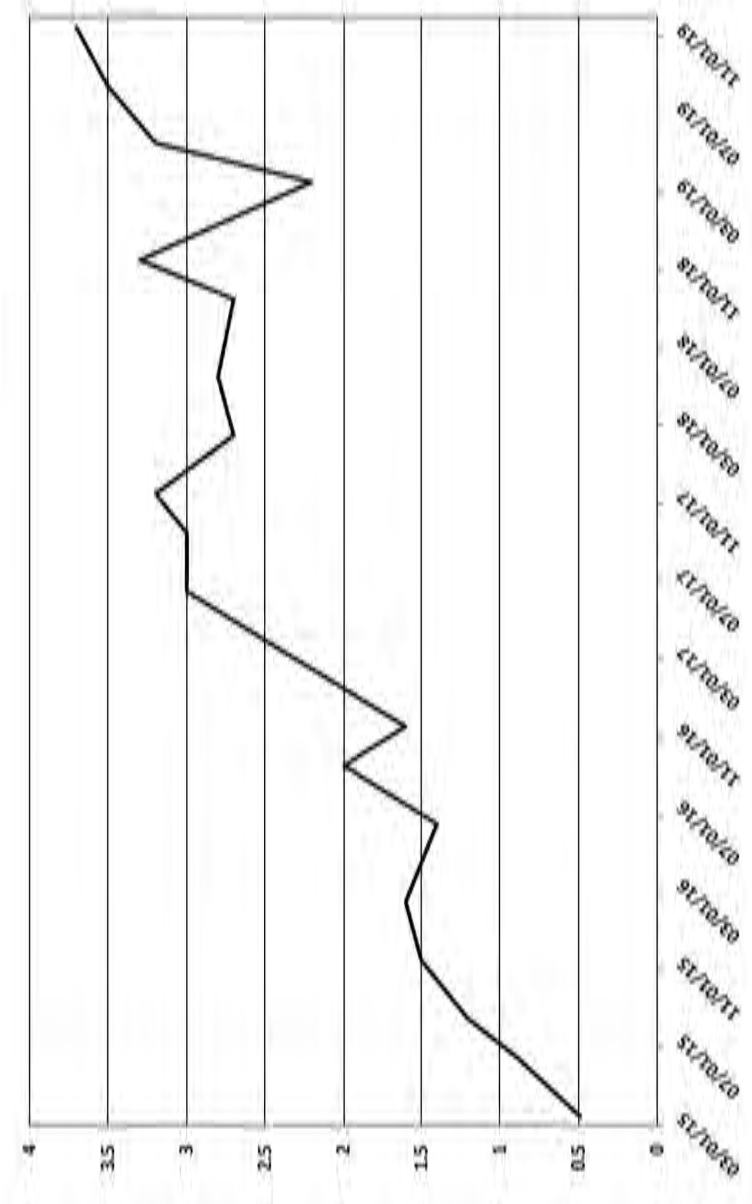
BTEX & MTBE THROUGH 2019 - WELL MKTF-04

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

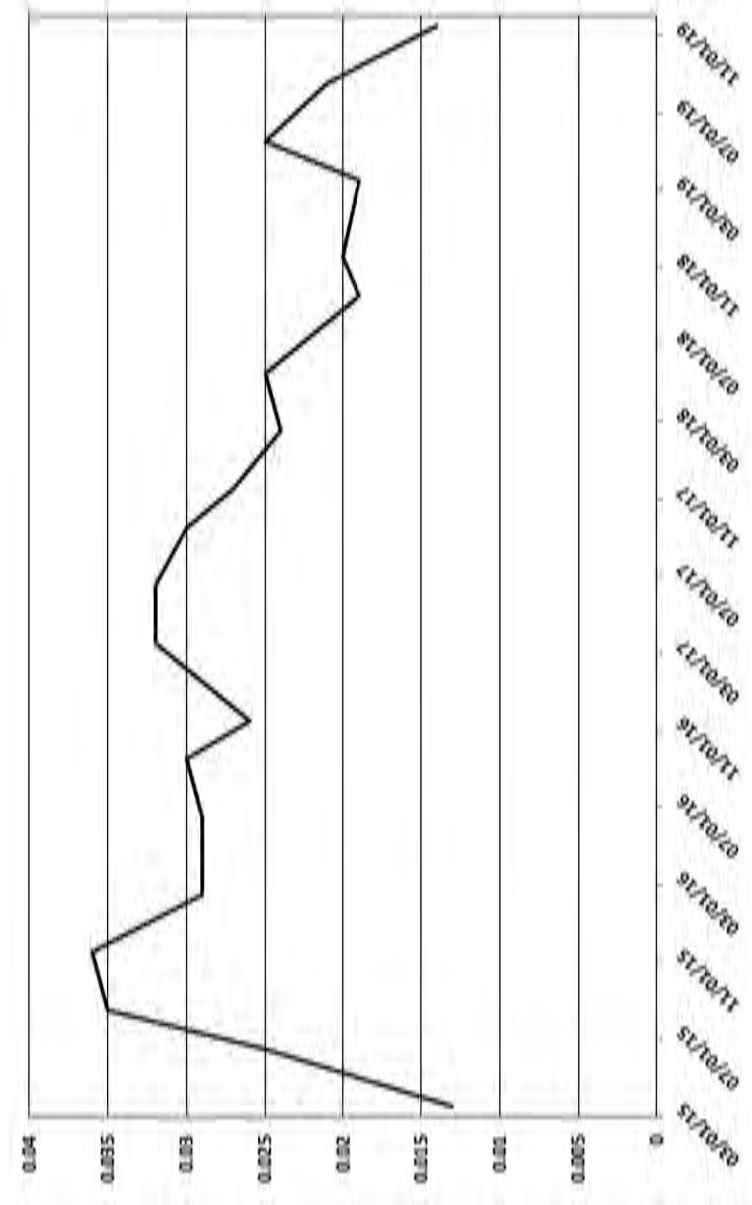
Drawn By: REP | Checked By: BM | Scale: NONE | Date: 9/15/2020 | File: 697-GWMON-2019-FIGS-18.1-18.20



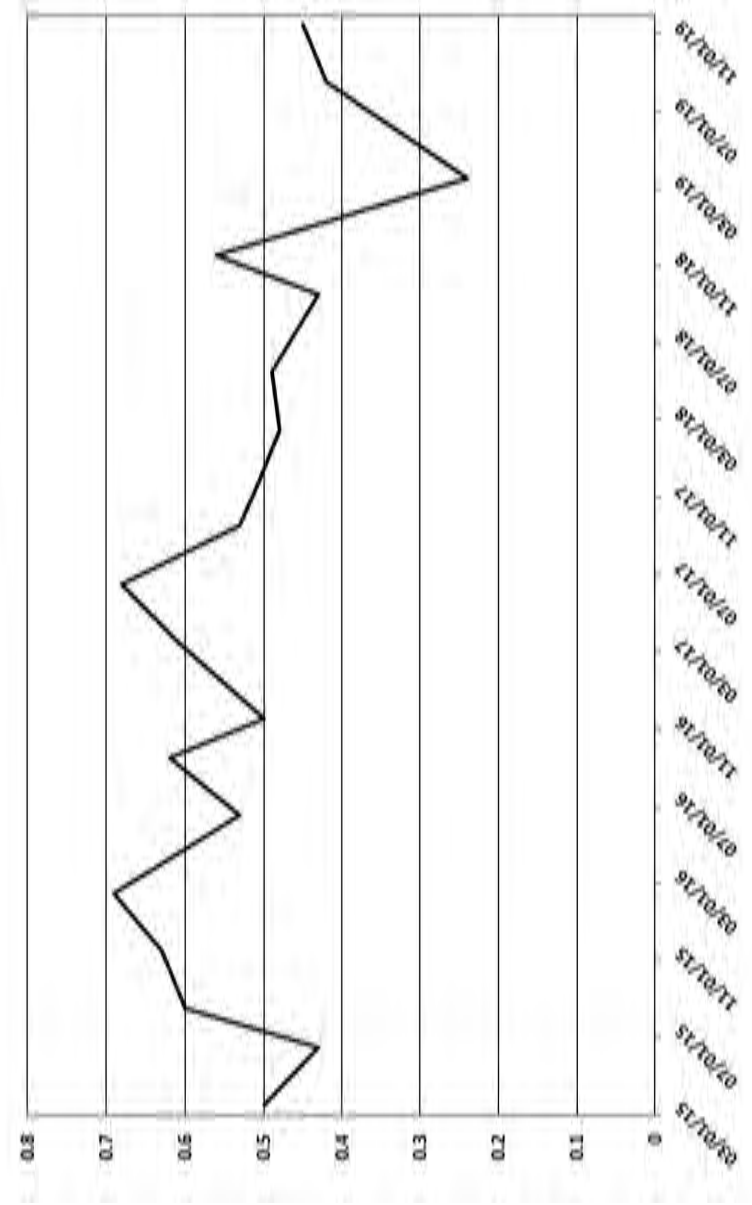
MKTF-09 BENZENE (mg/L)



MKTF-09 TOLUENE (mg/L)



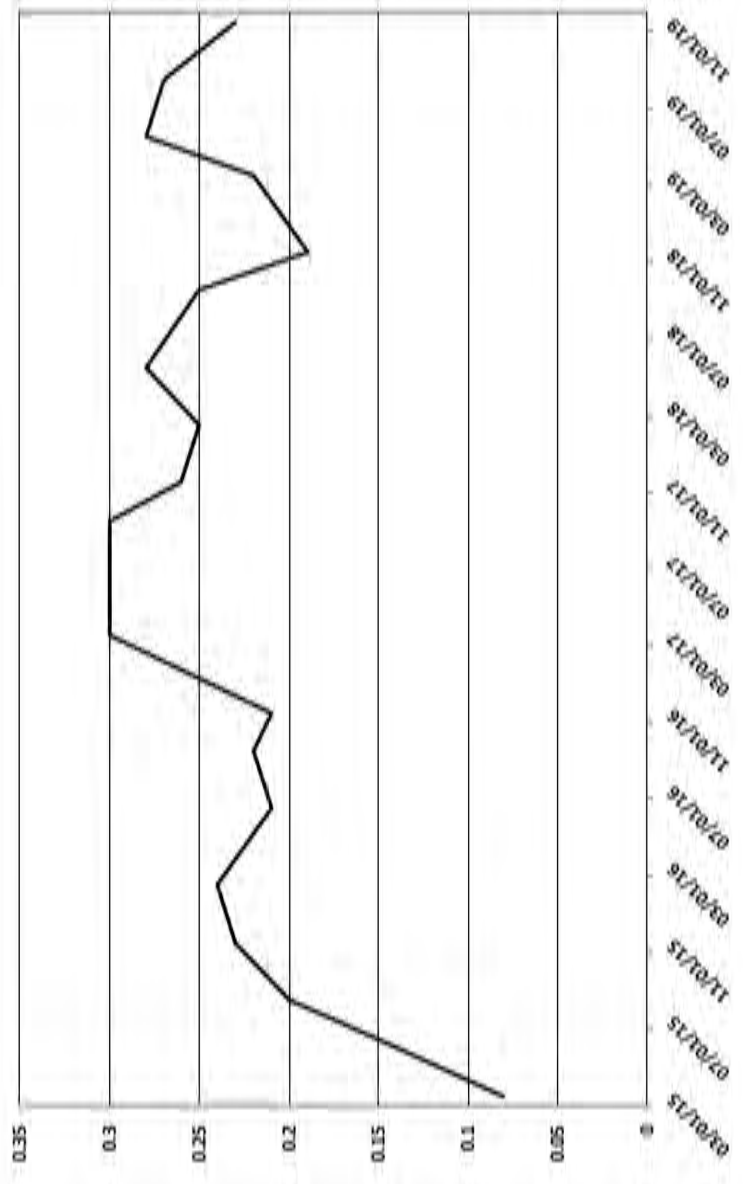
MKTF-09 MTBE (mg/L)



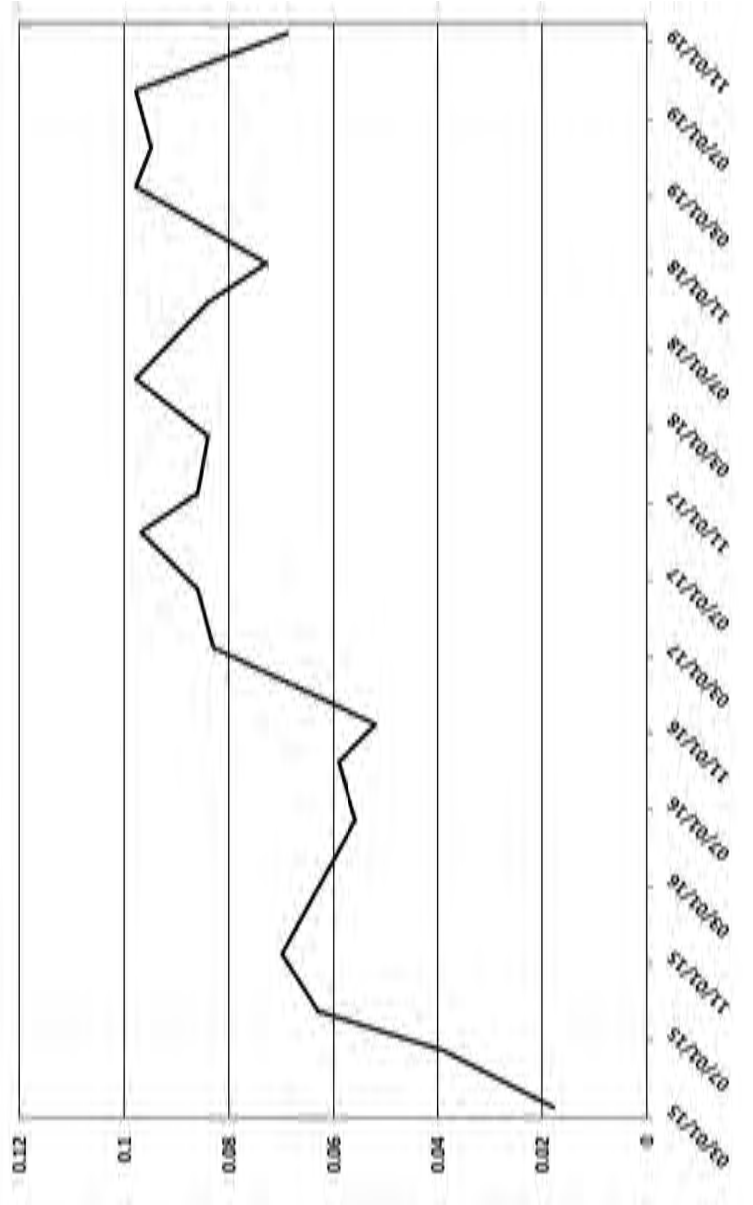
MKTF-09 TOTAL XYLENES (mg/L)



MKTF-09 ETHYLBENZENE (mg/L)



MKTF-09 TOTAL XYLENES (mg/L)



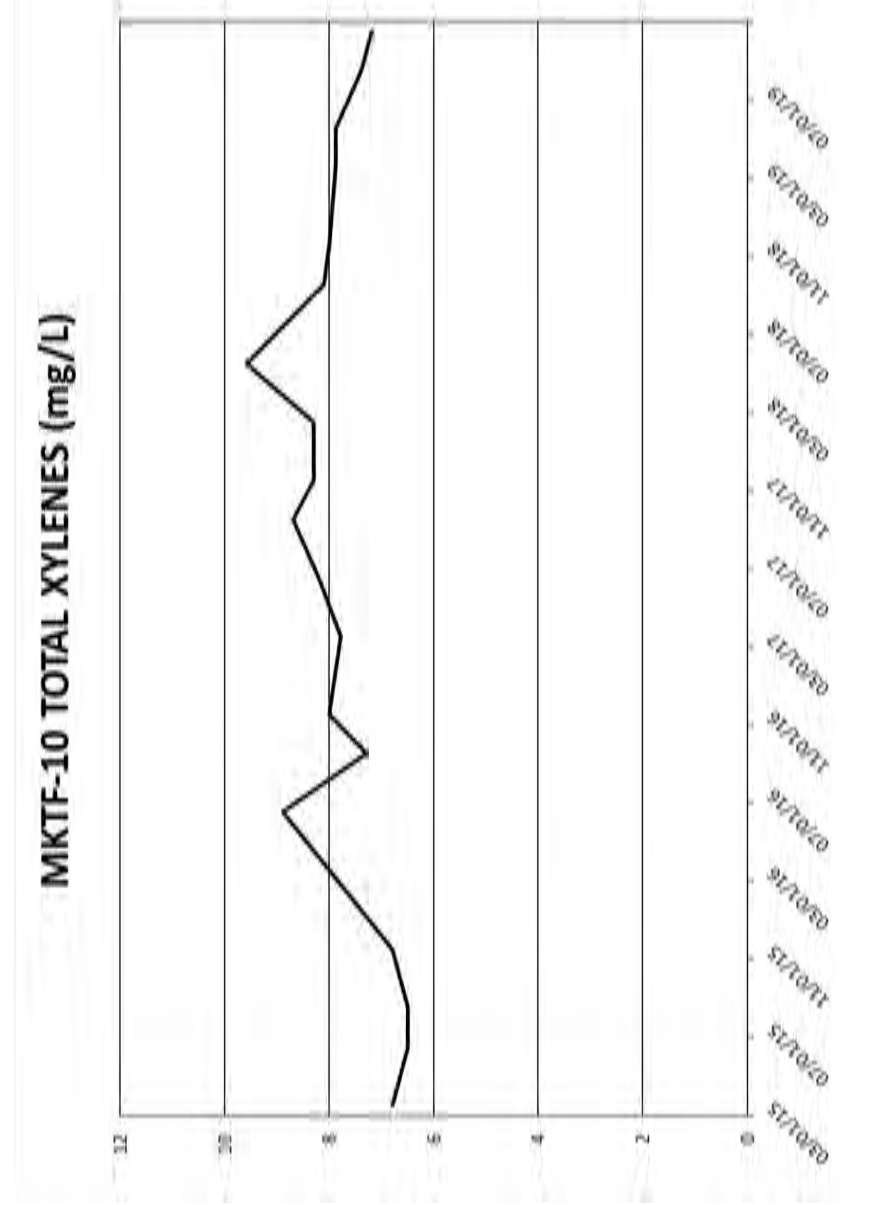
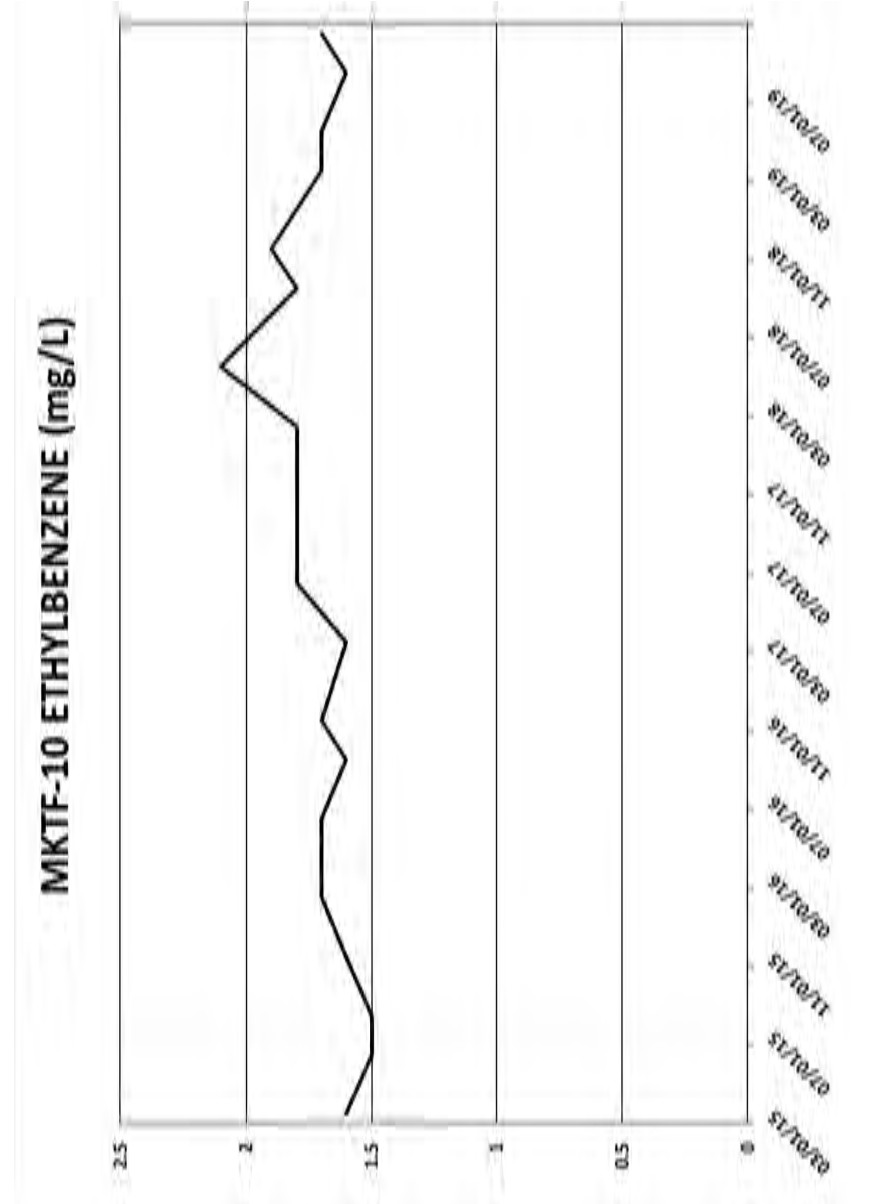
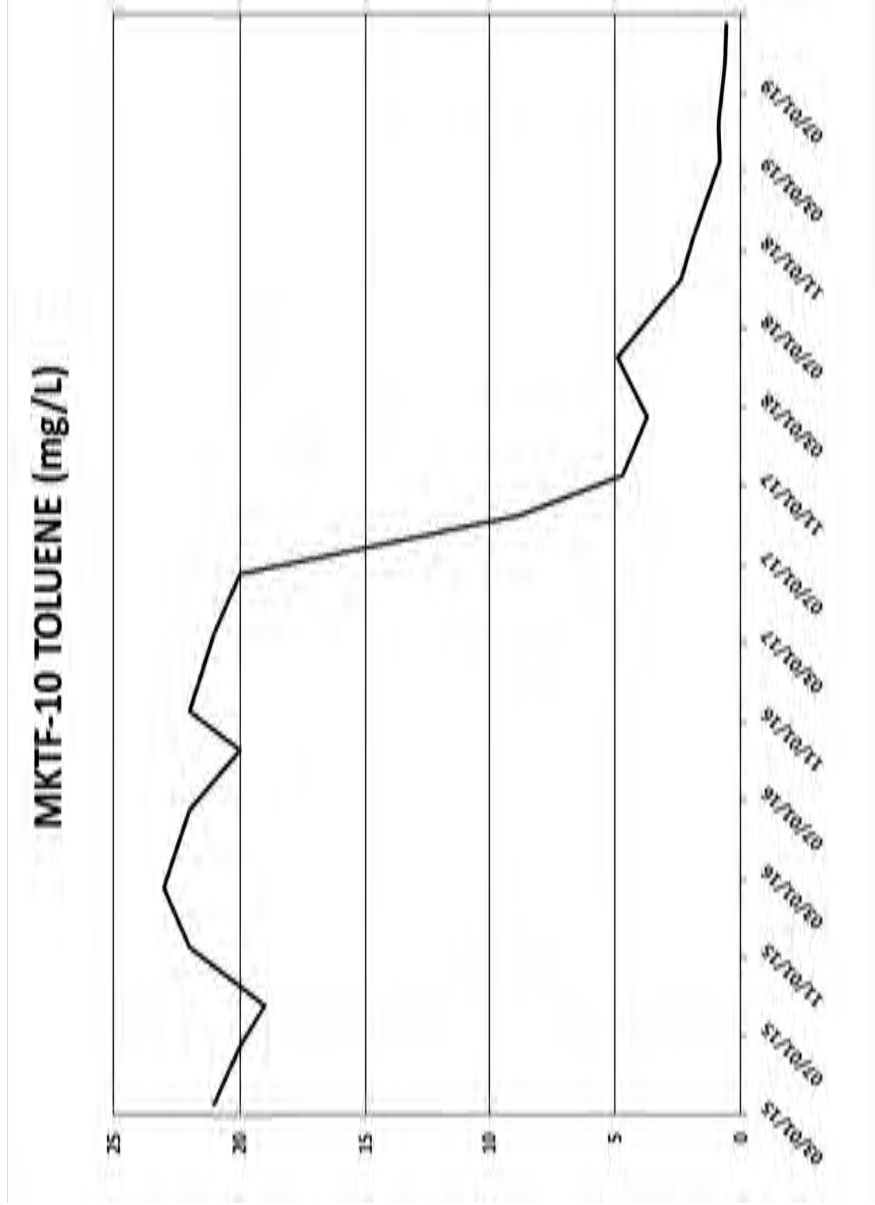
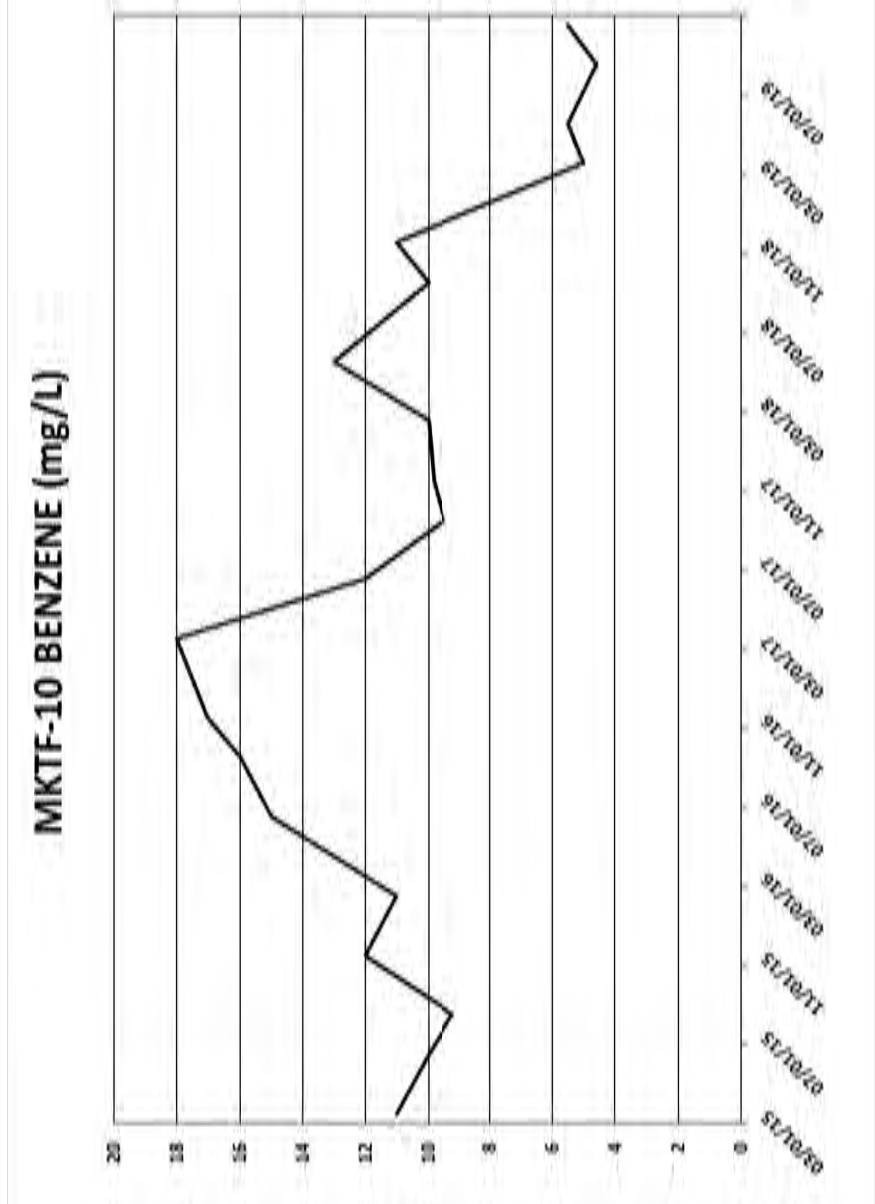


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BTEX & MTBE THROUGH 2019 - WELL MKTF-09		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.1-18.20

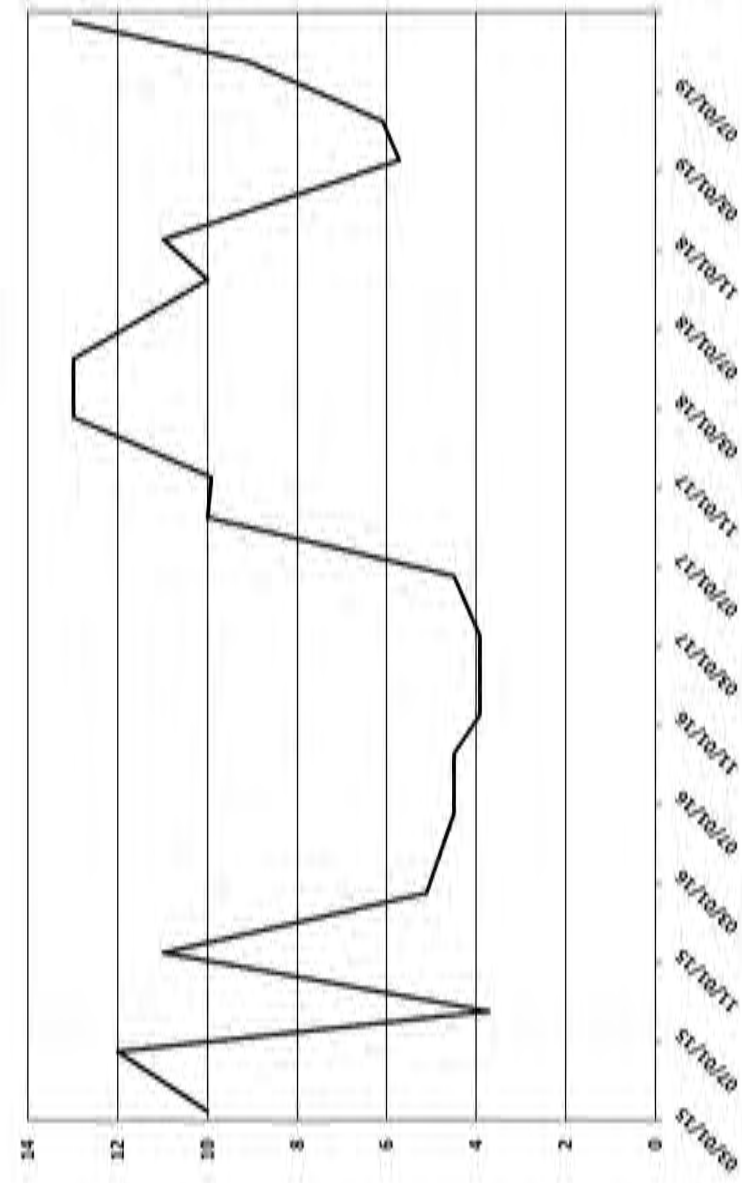
FIGURE 18.3



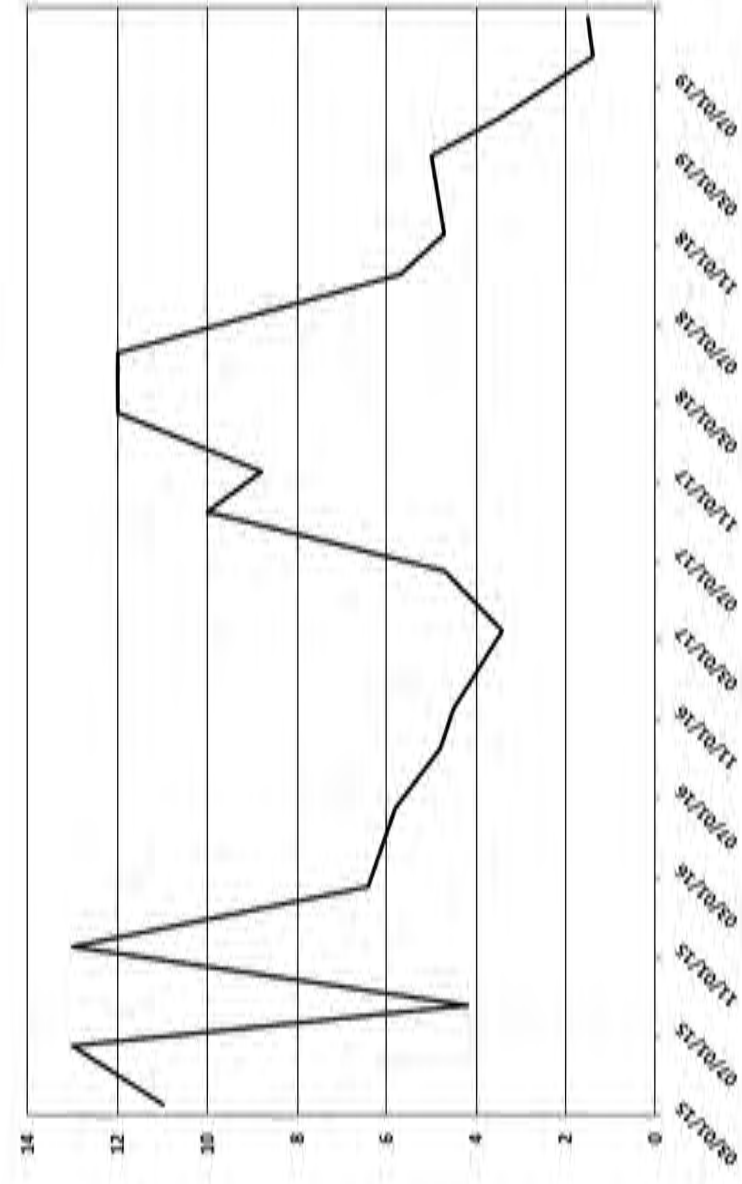




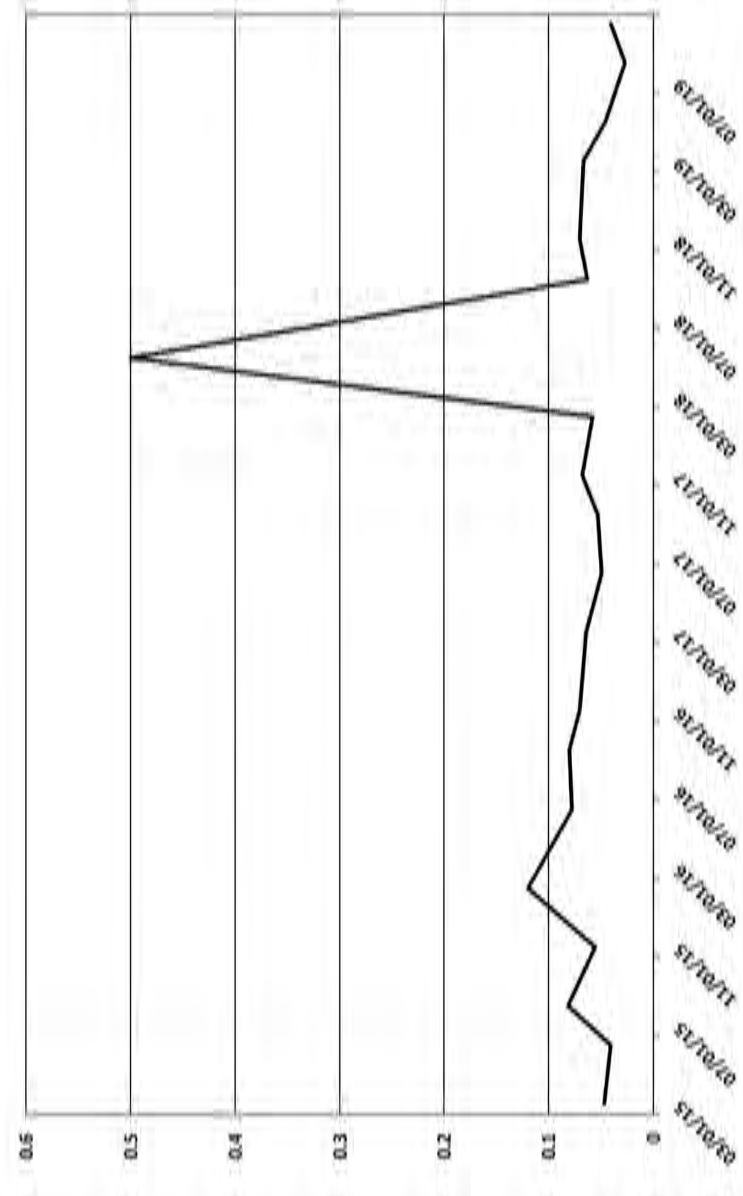
MKTF-11 BENZENE (mg/L)



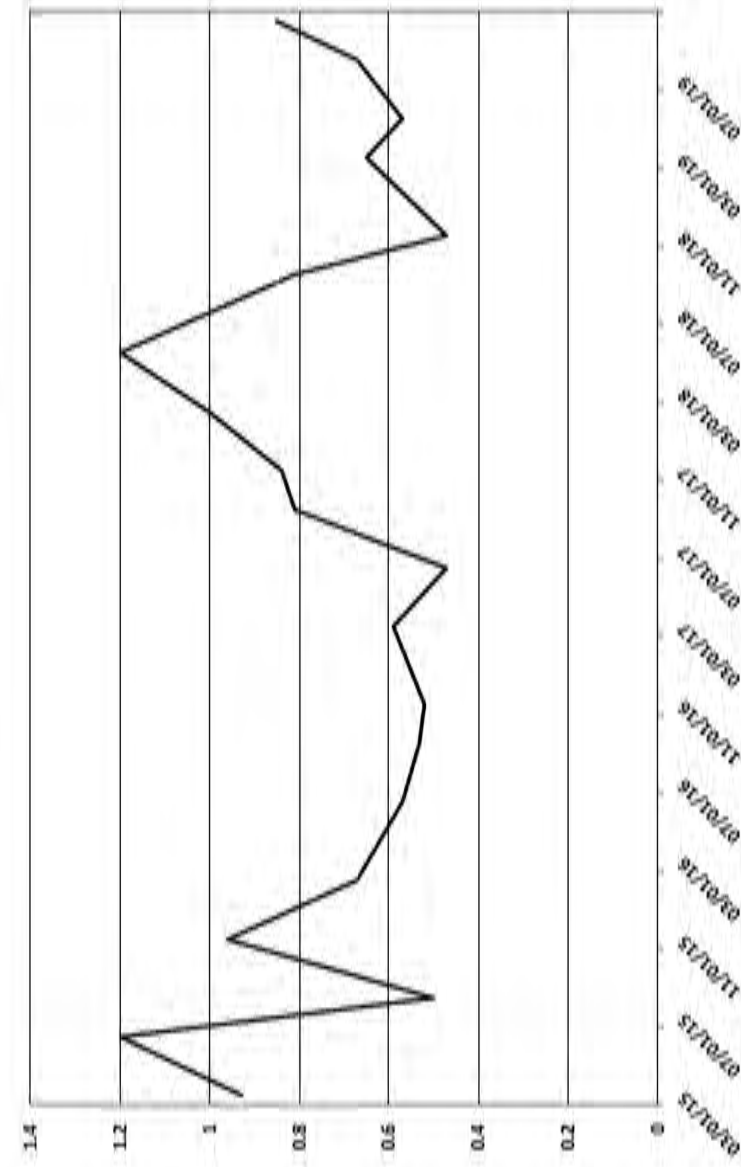
MKTF-11 TOLUENE (mg/L)



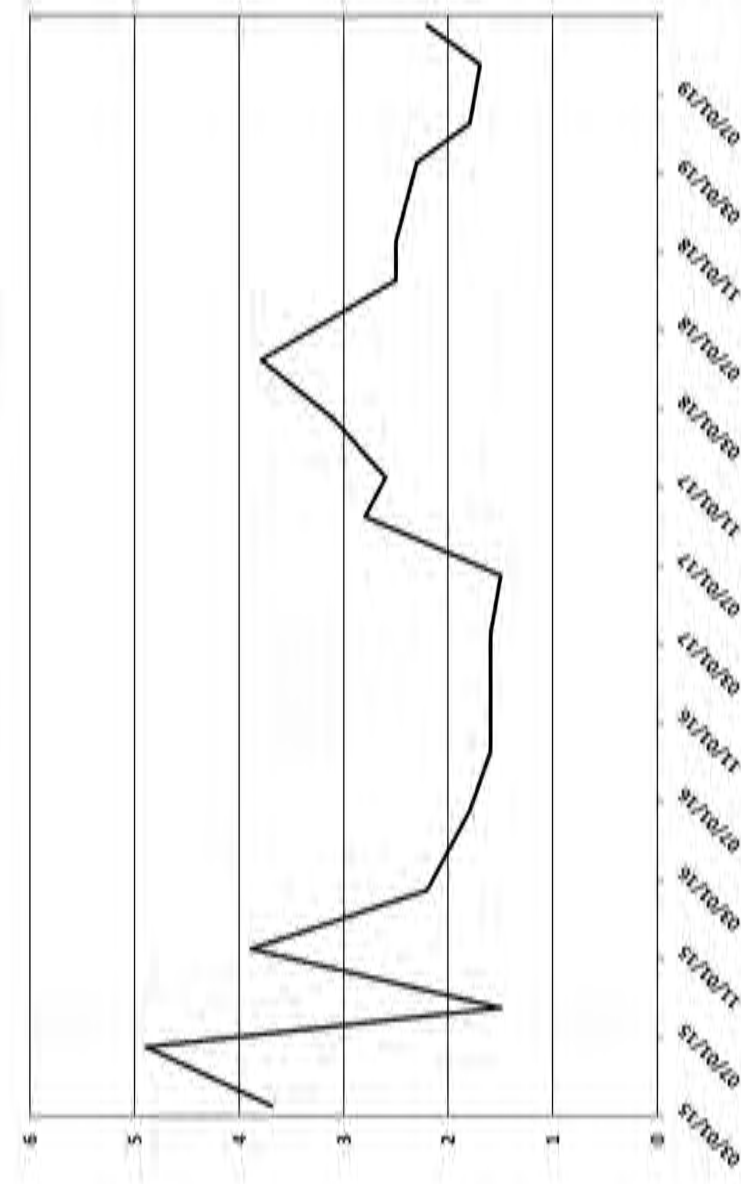
MKTF-11 MTBE (mg/L)



MKTF-11 ETHYLBENZENE (mg/L)

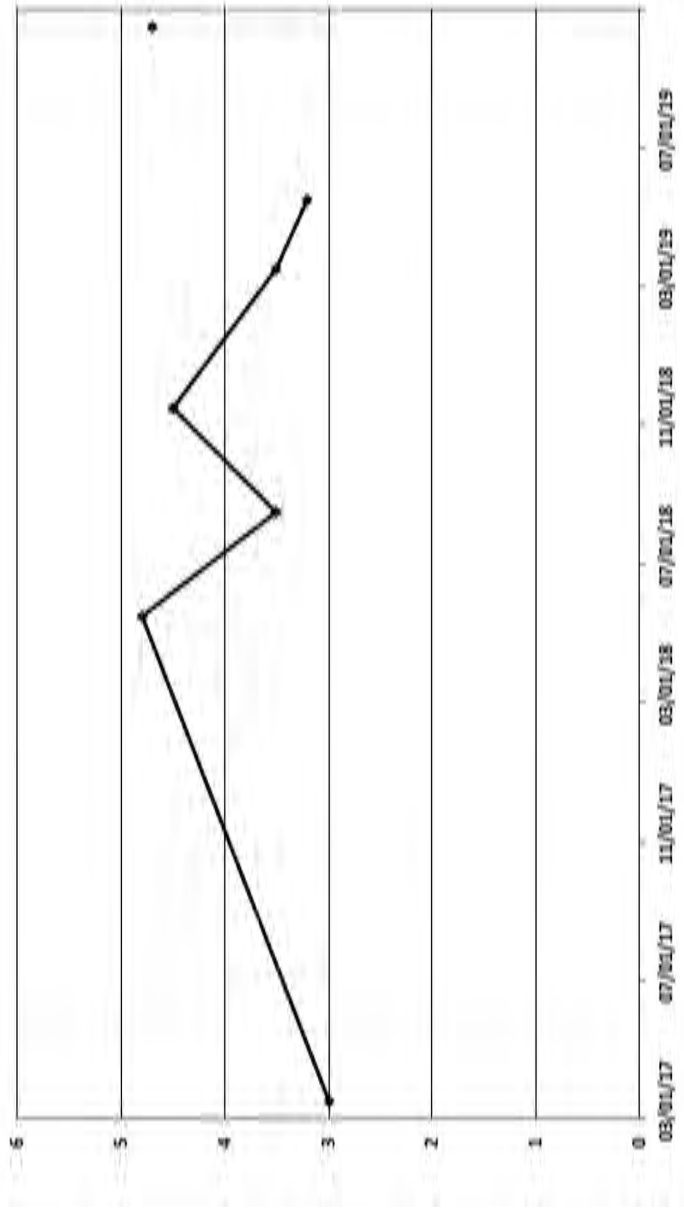


MKTF-11 TOTAL XYLENES (mg/L)

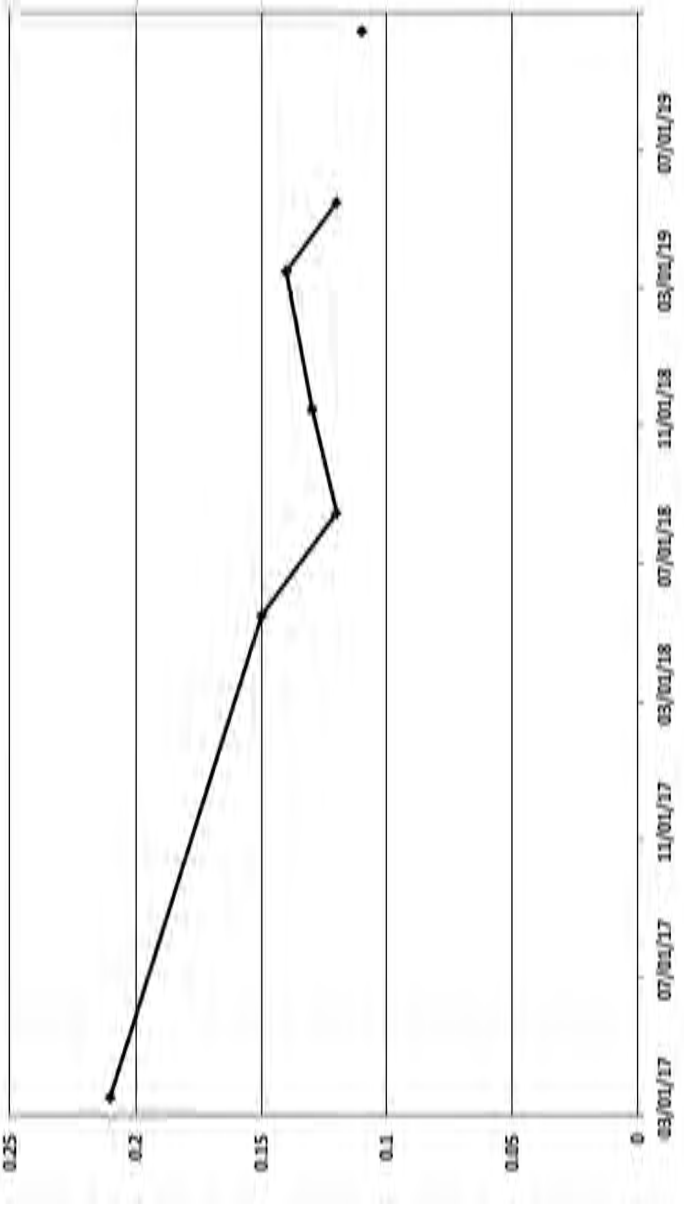




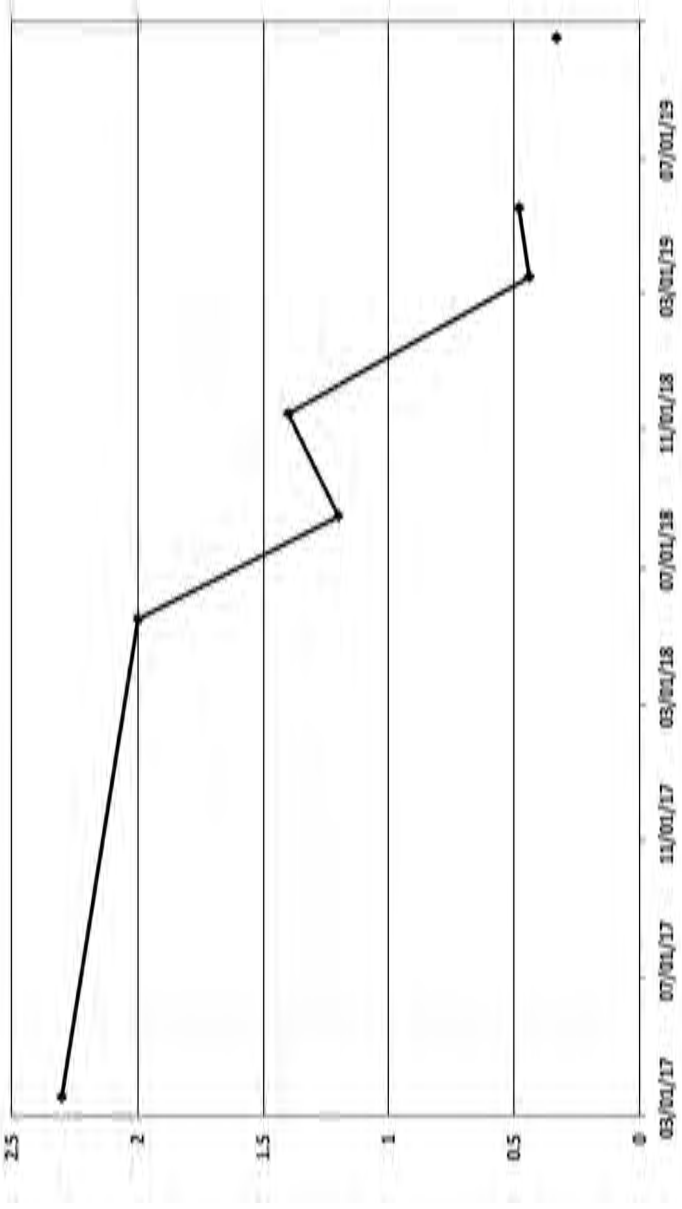
MKTF-13 BENZENE (mg/L)



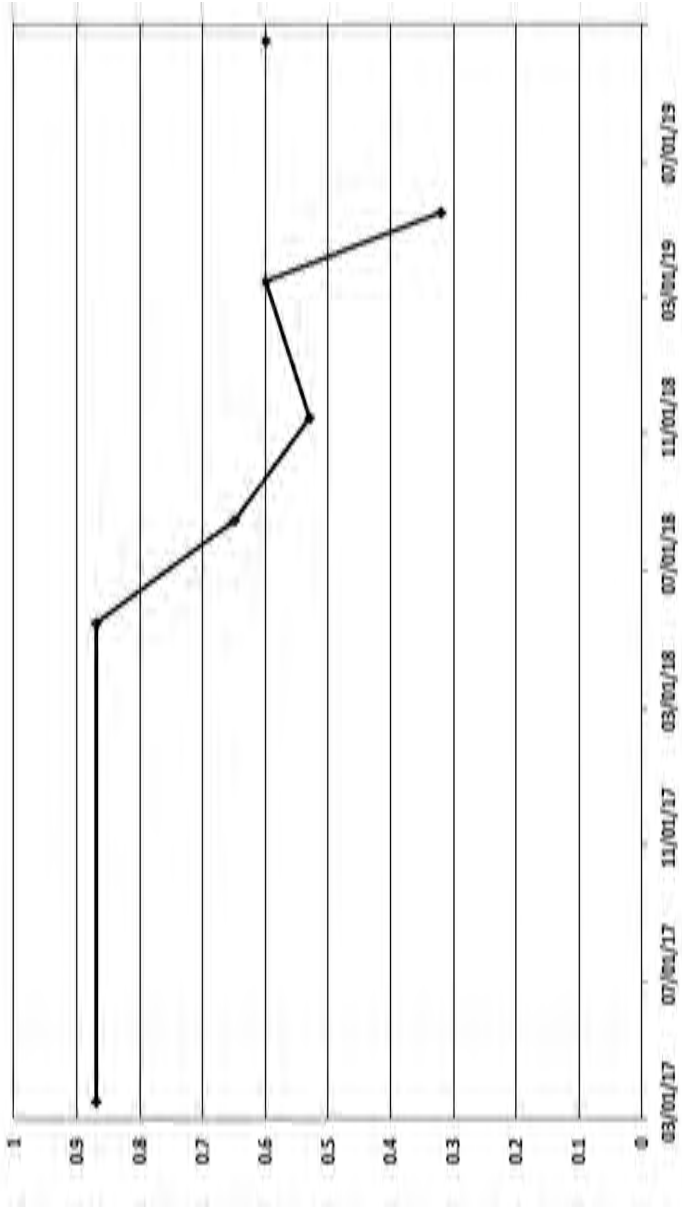
MKTF-13 TOLUENE (mg/L)



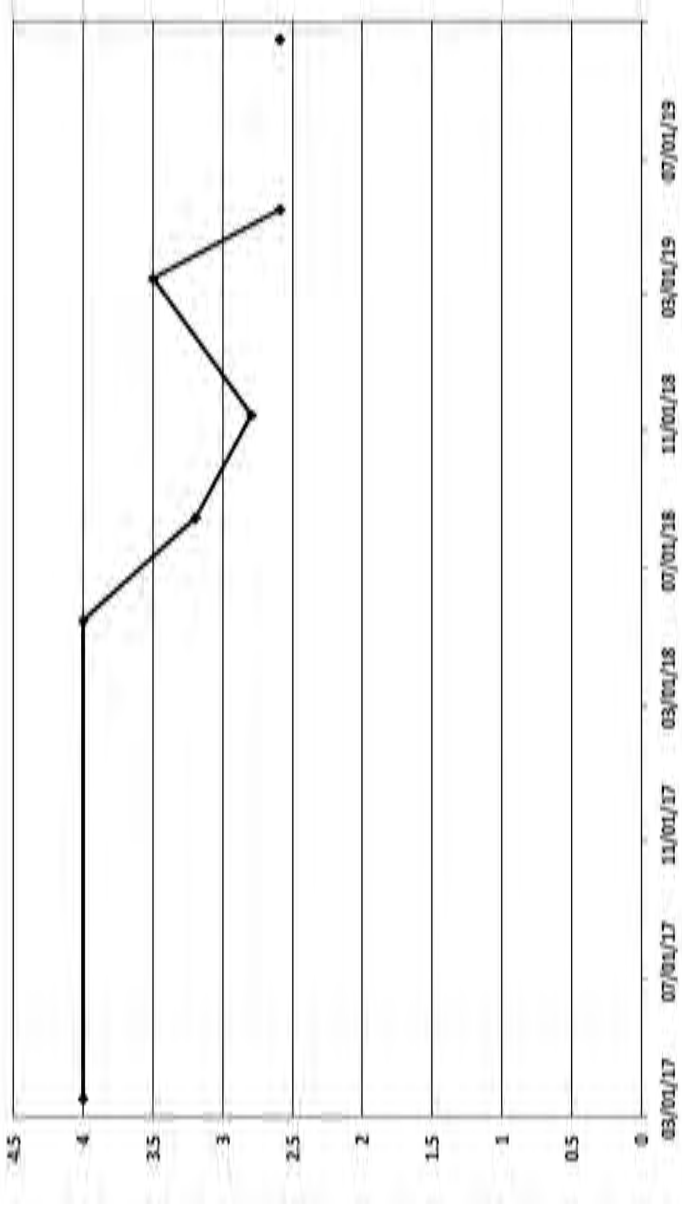
MKTF-13 MTBE (mg/L)



MKTF-13 ETHYLBENZENE (mg/L)



MKTF-13 TOTAL XYLENES (mg/L)





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**FIGURE 18.6**

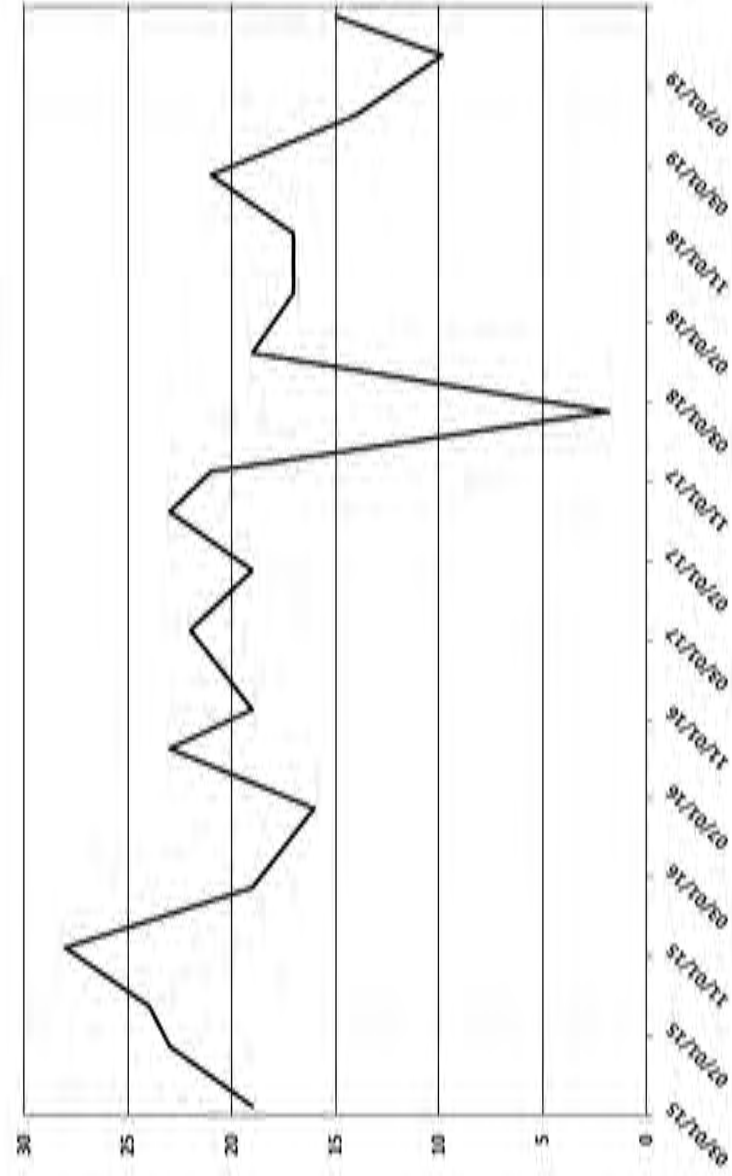
**BTEX & MTBE THROUGH 2019 - WELL MKTF-13**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

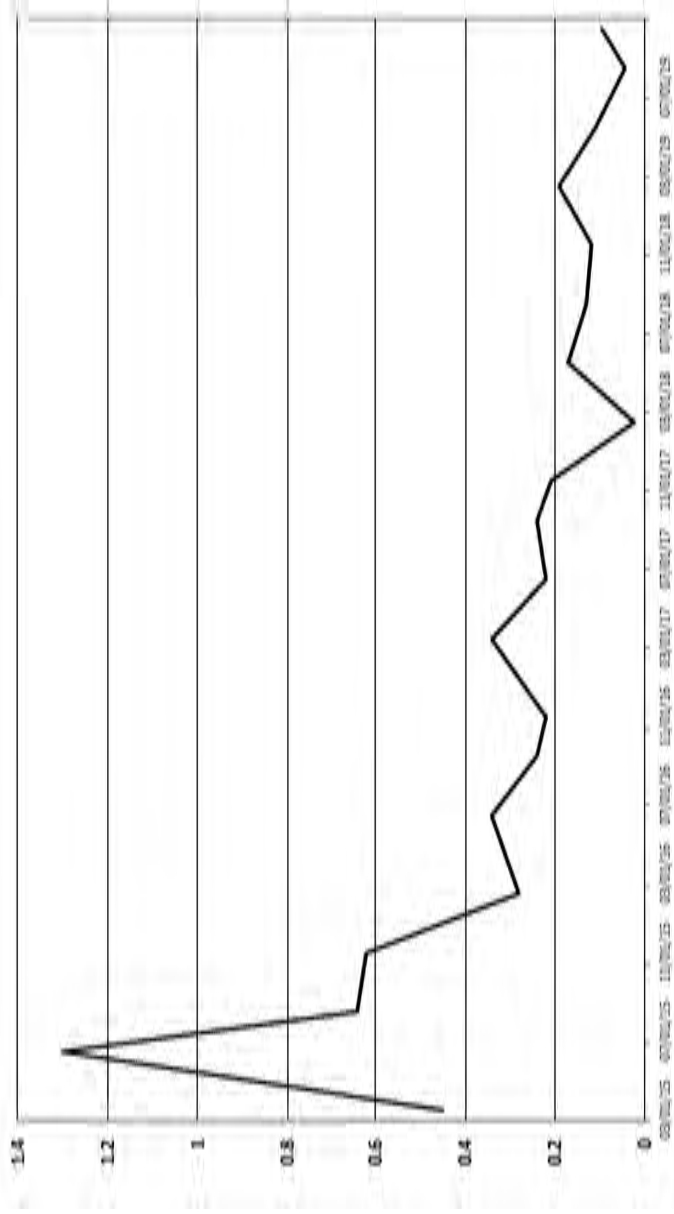
Drawn By: REP Checked By: BM Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.1-18.20



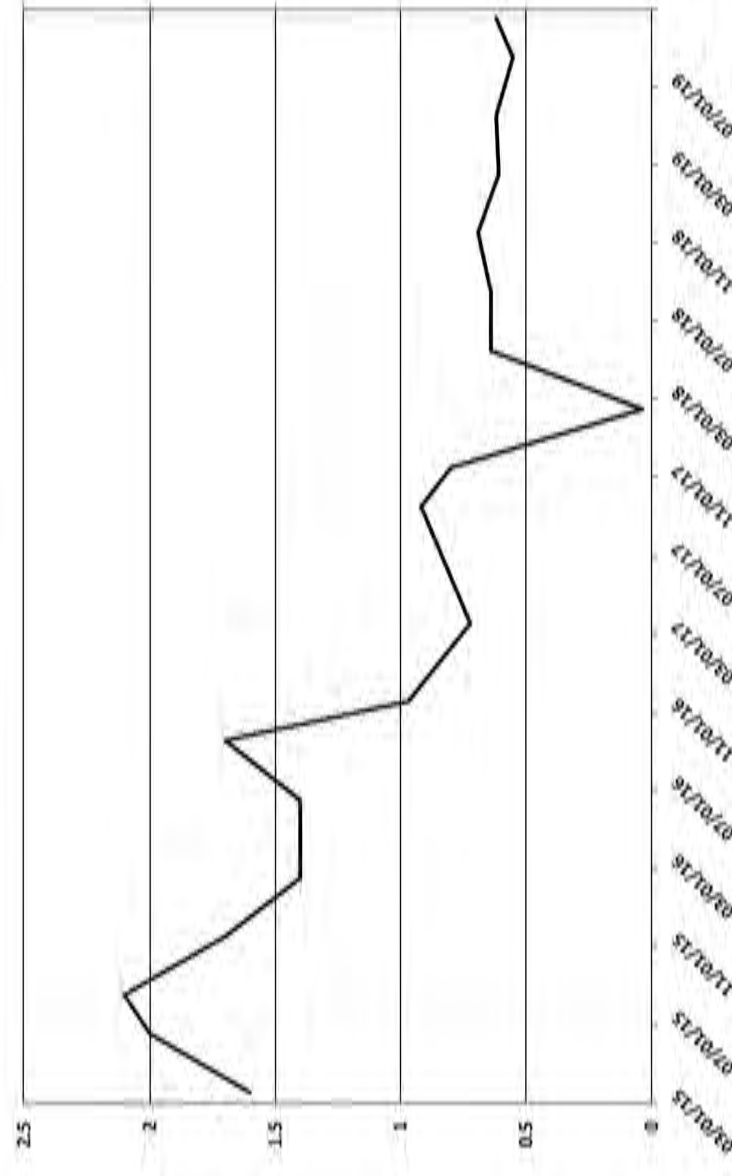
MKTF-16 BENZENE (mg/L)



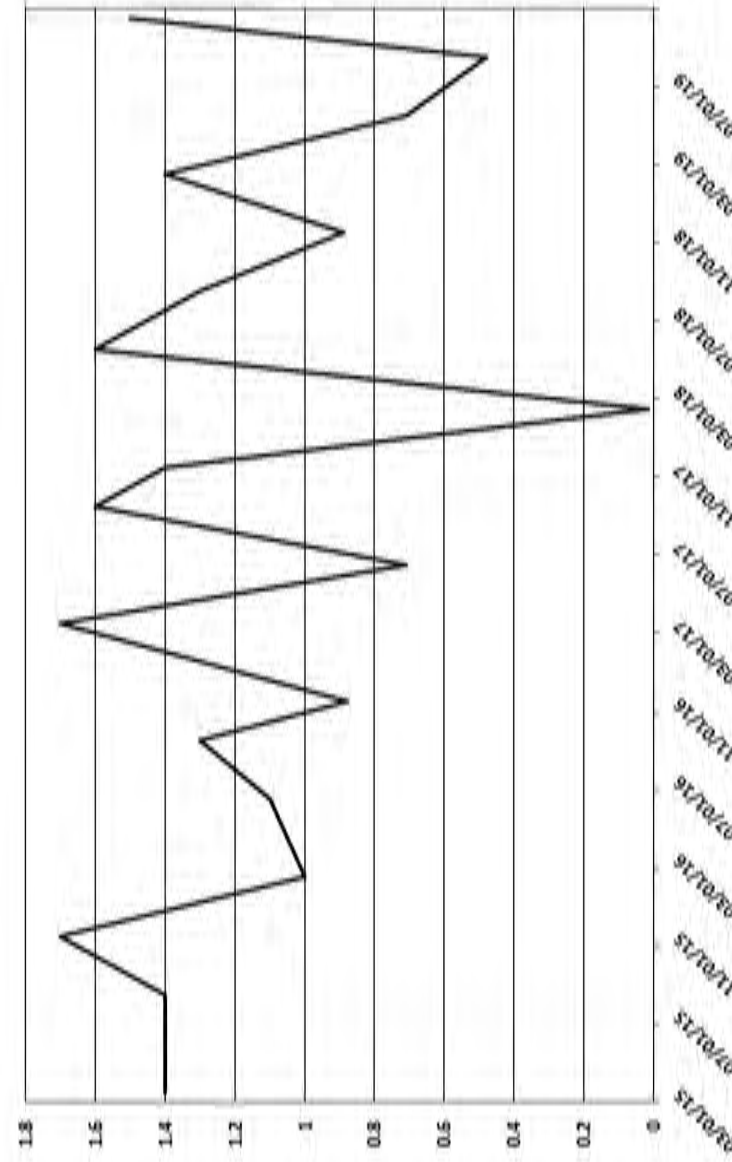
MKTF-16 TOLUENE (mg/L)



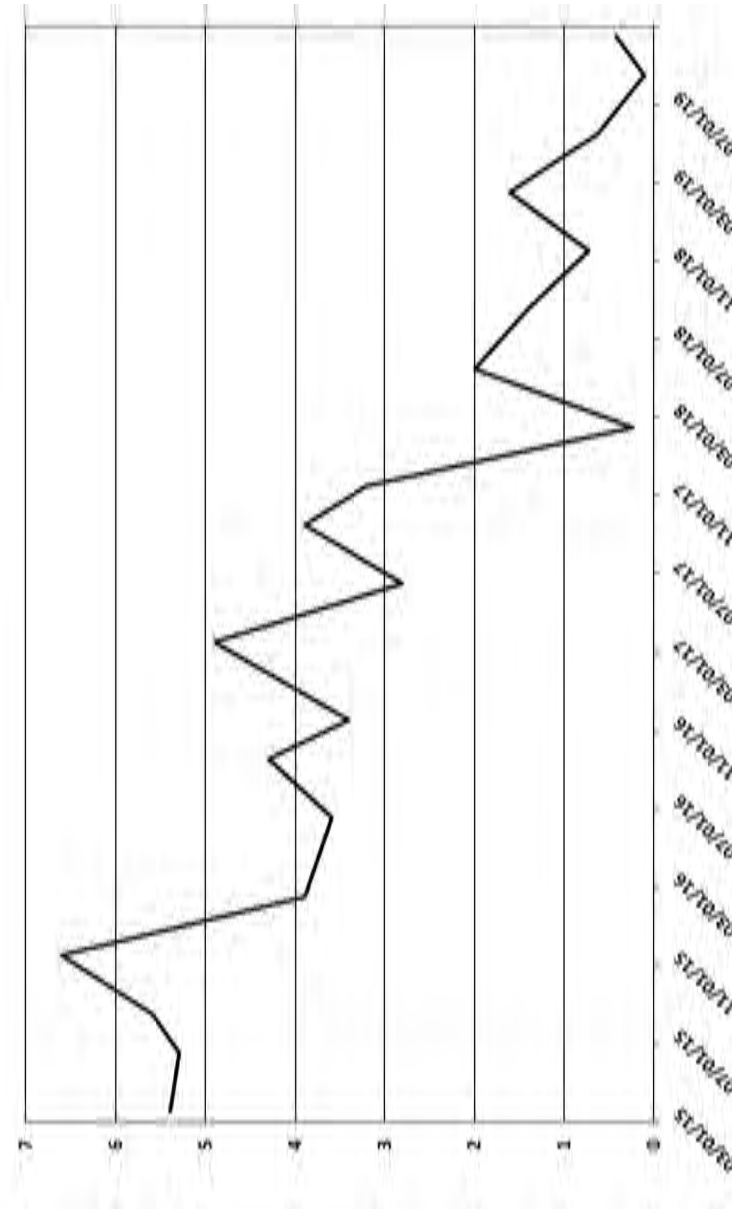
MKTF-16 MTBE (mg/L)



MKTF-16 ETHYLBENZENE (mg/L)



MKTF-16 TOTAL XYLENES (mg/L)





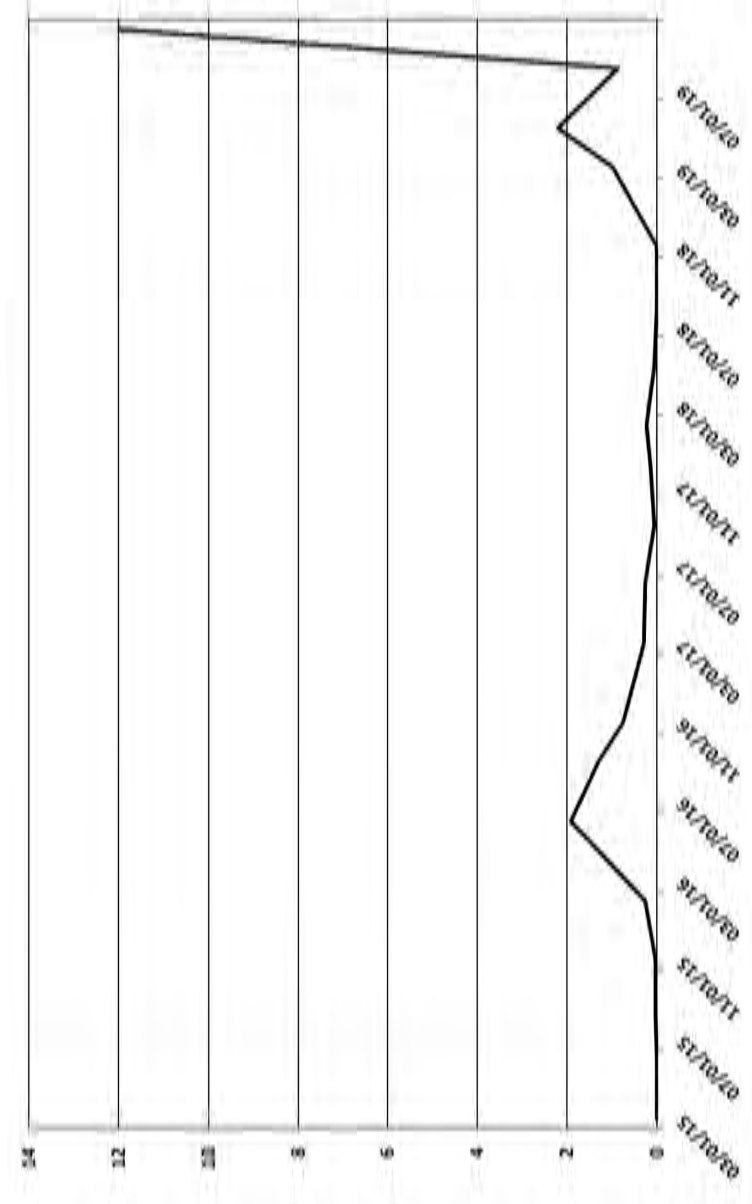
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BTEX & MTBE THROUGH 2019 - WELL MKTF-16		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.1-18.20

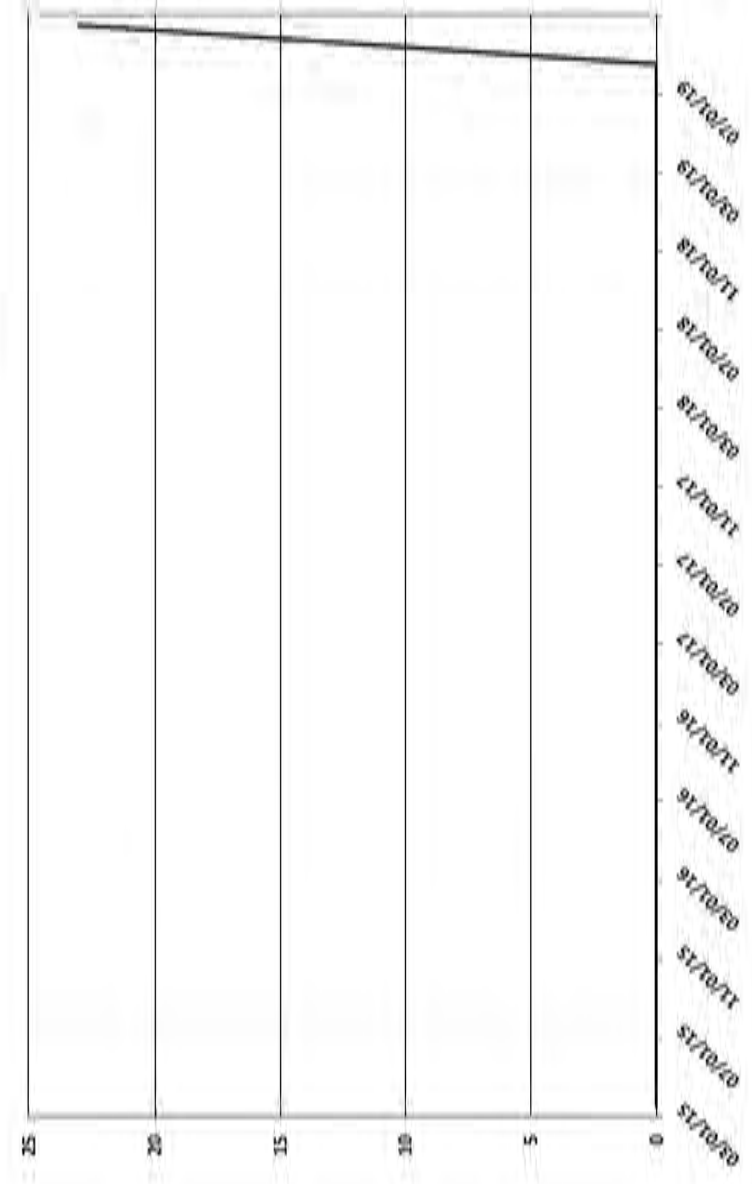
FIGURE 18.7



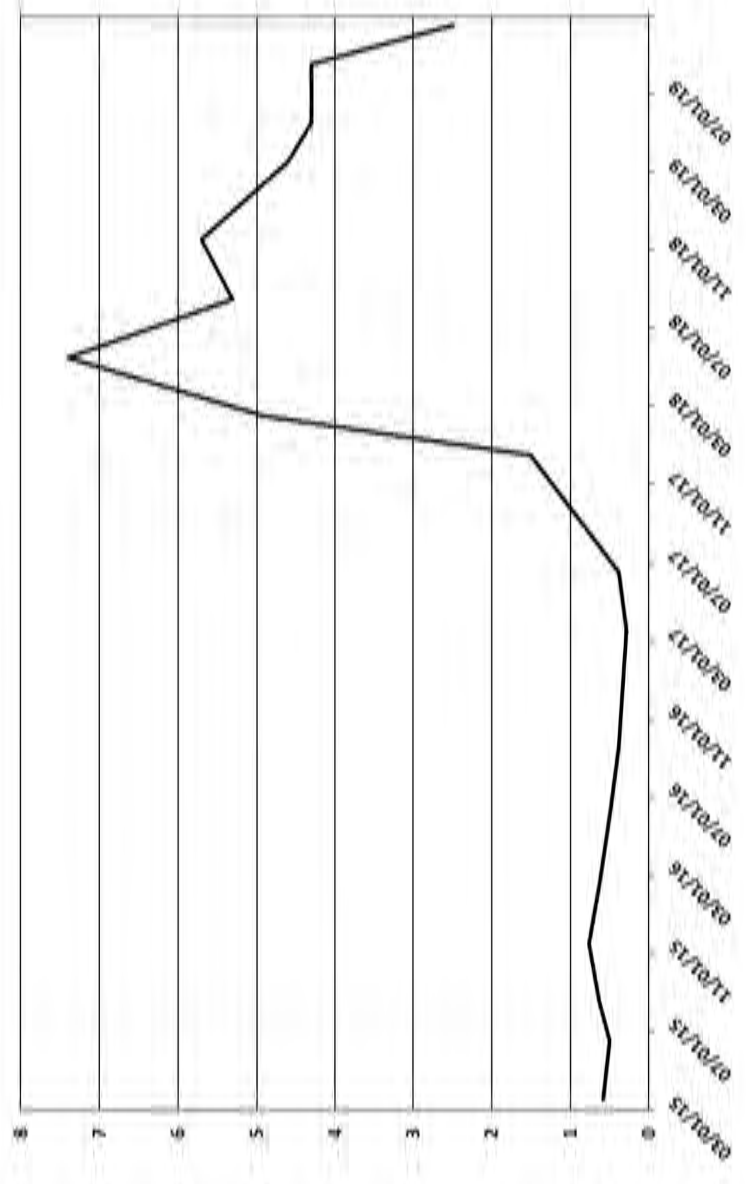
MKTF-17 BENZENE (mg/L)



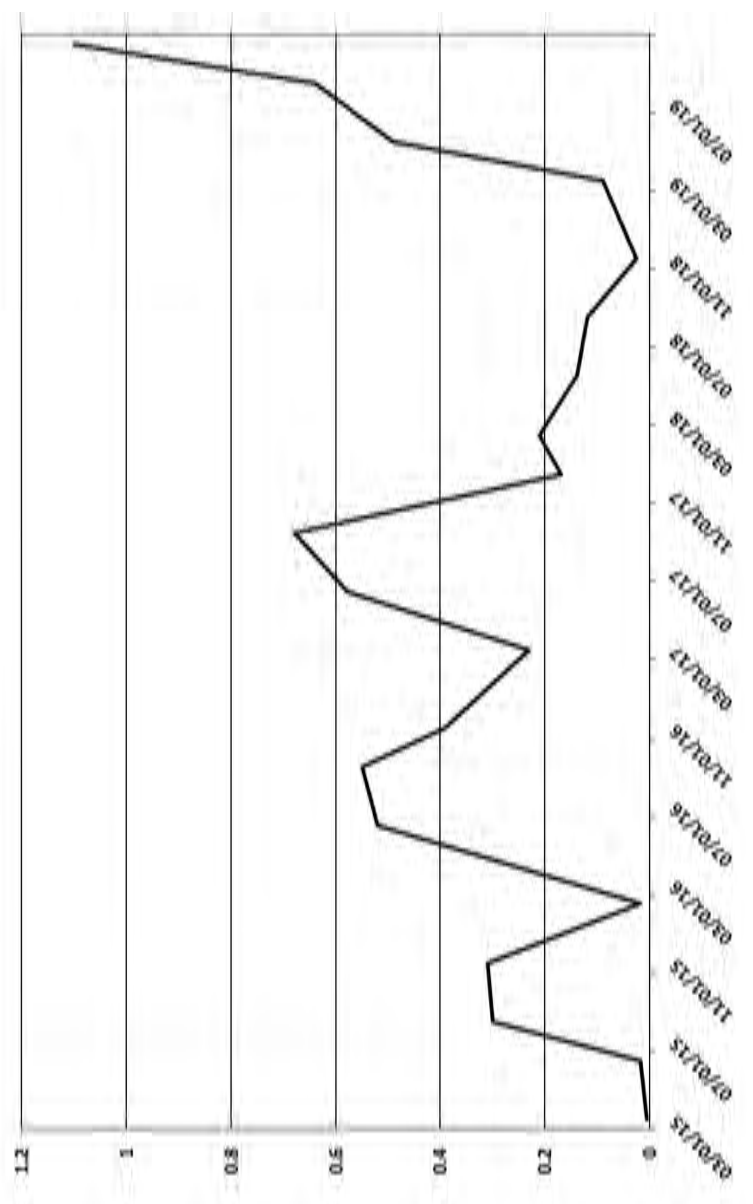
MKTF-17 TOLUENE (mg/L)



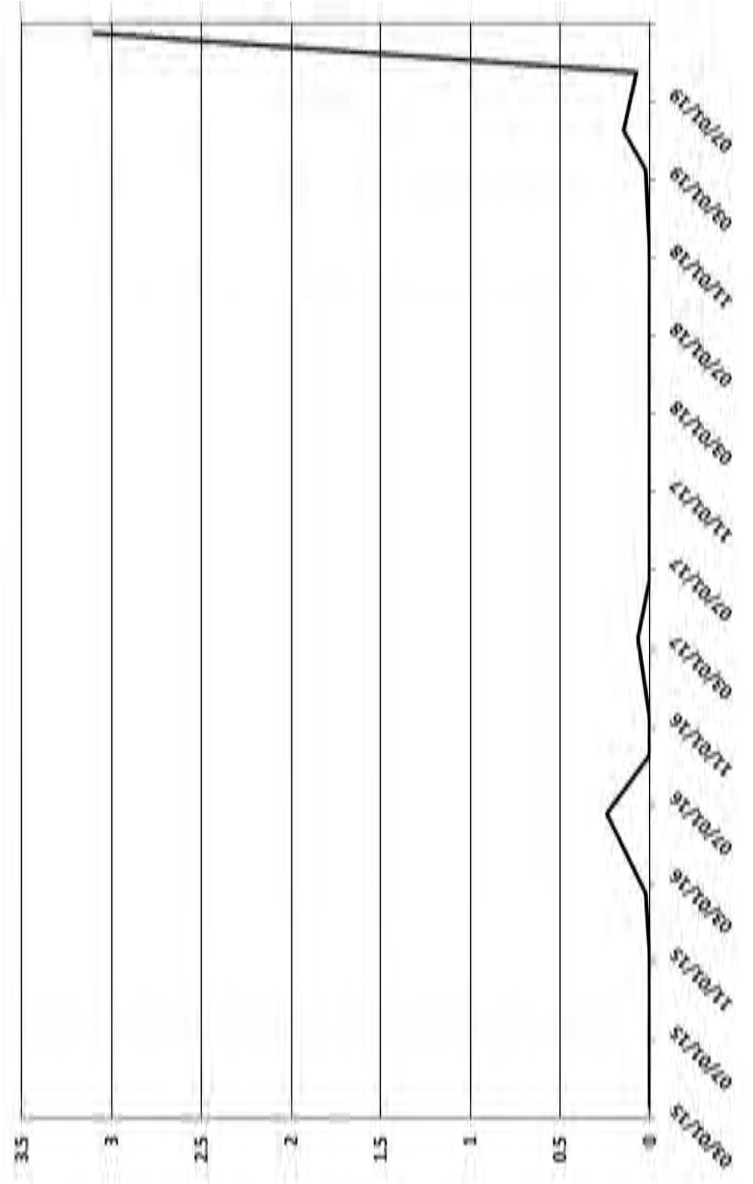
MKTF-17 MTBE (mg/L)



MKTF-17 ETHYLBENZENE (mg/L)



MKTF-17 TOTAL XYLENES (mg/L)



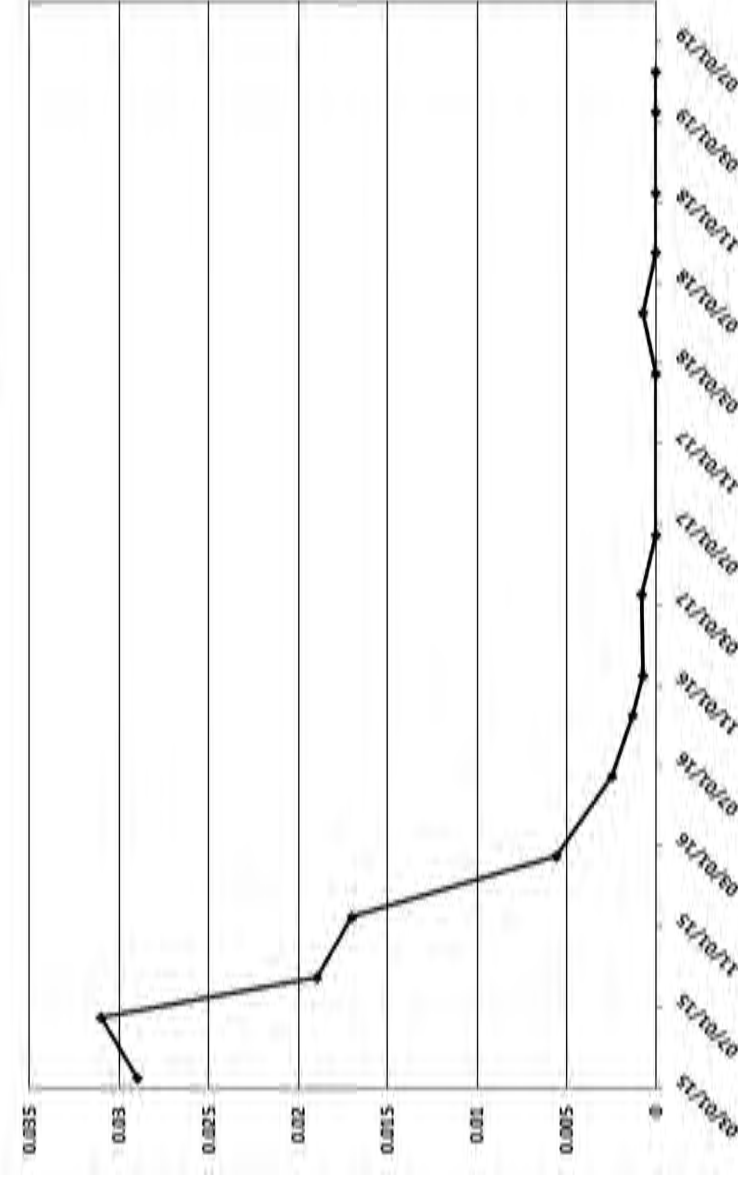
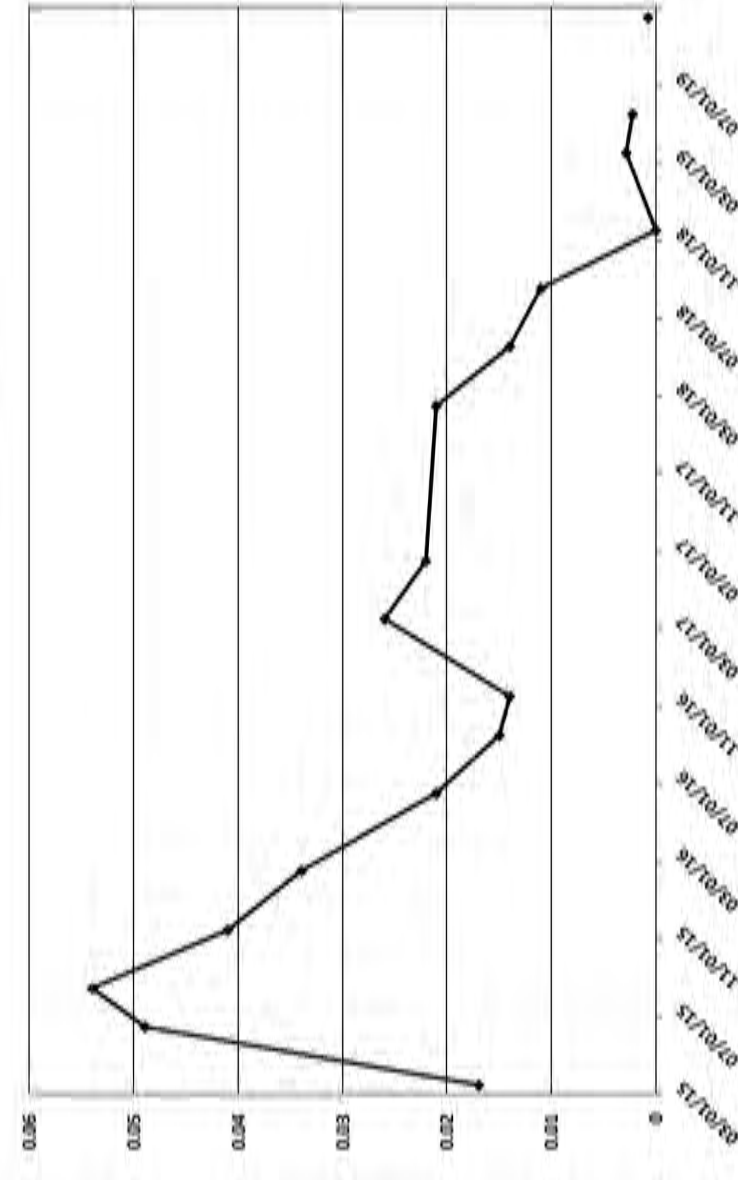
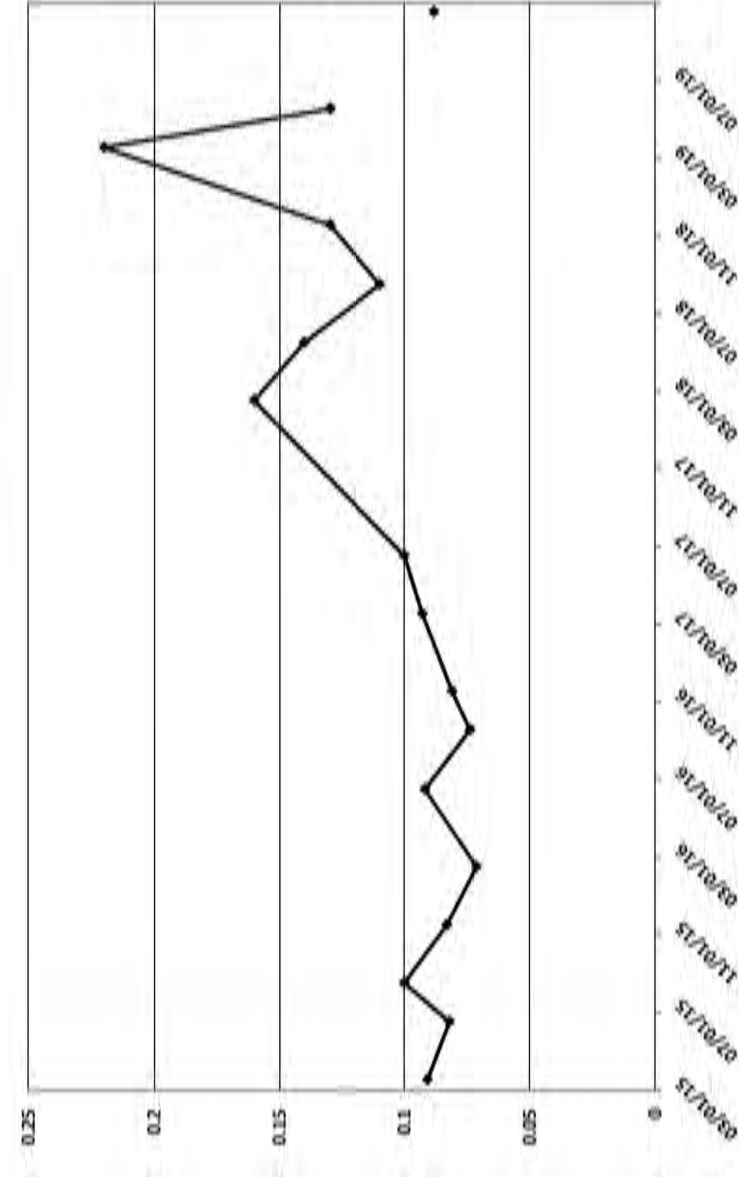
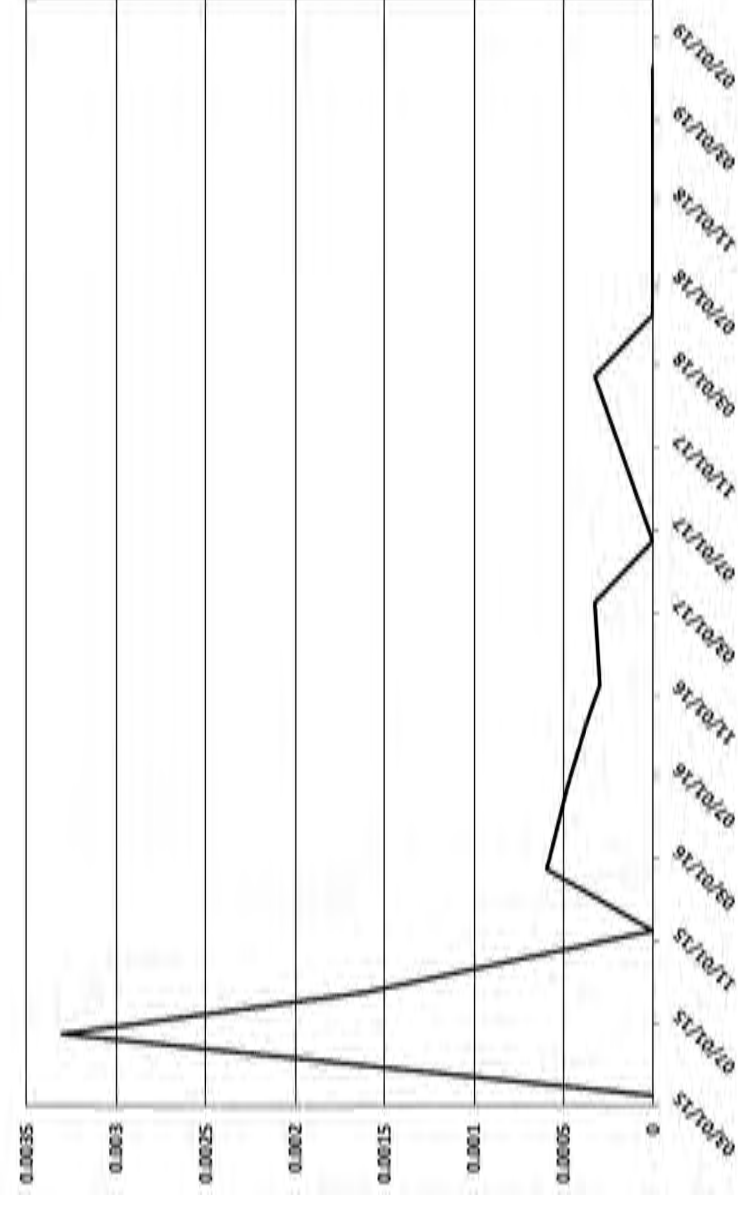
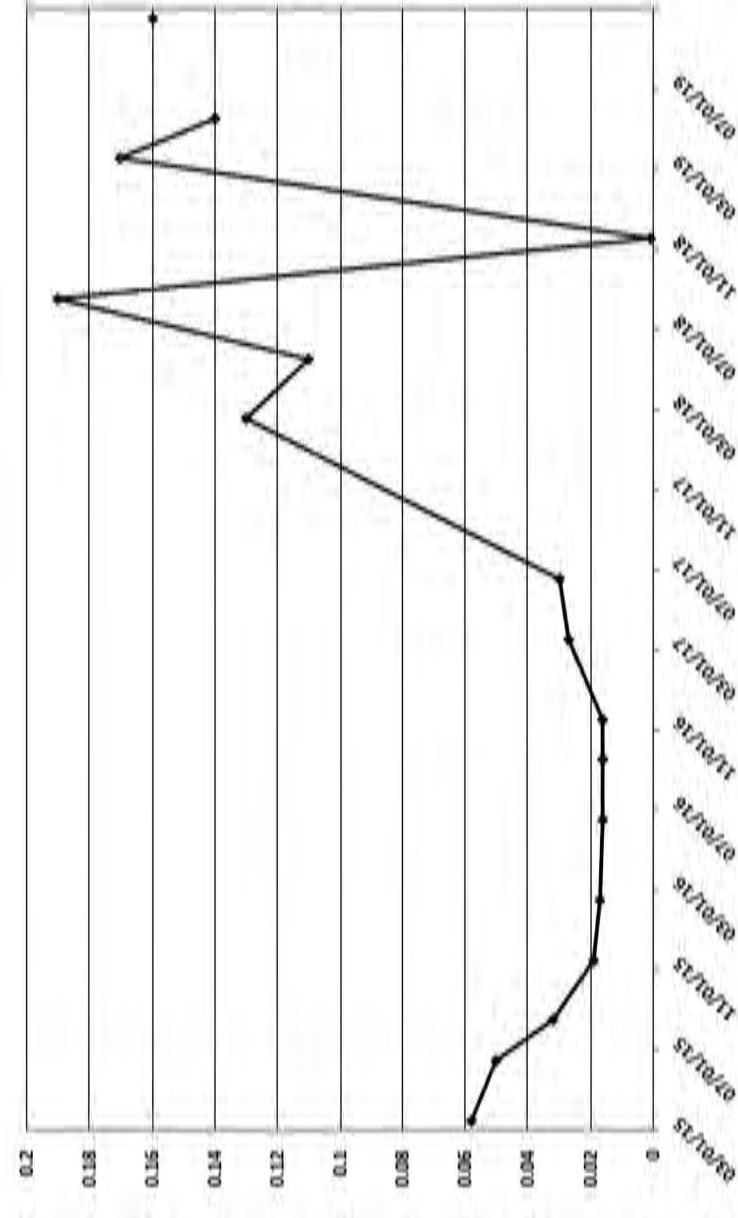


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BTEX & MTBE THROUGH 2019 - WELL MKTF-17		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

FIGURE 18.8





**FIGURE 18.9**

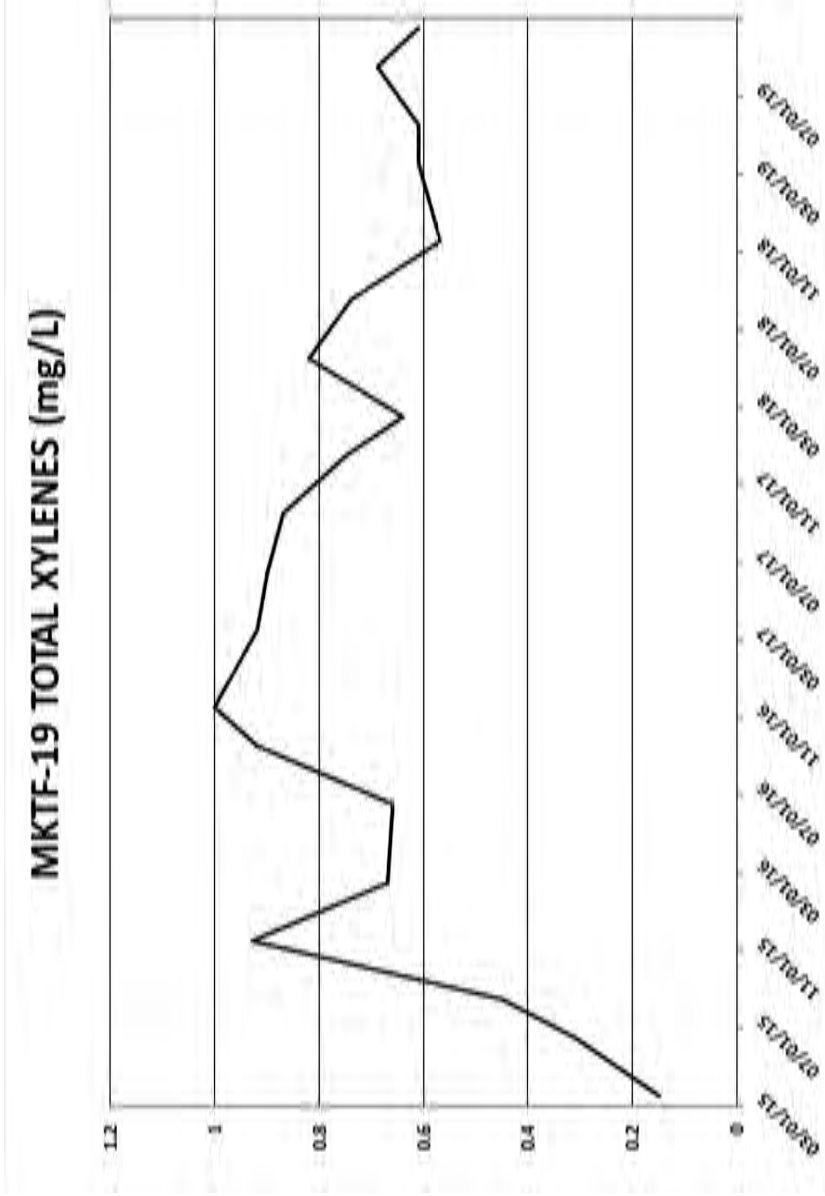
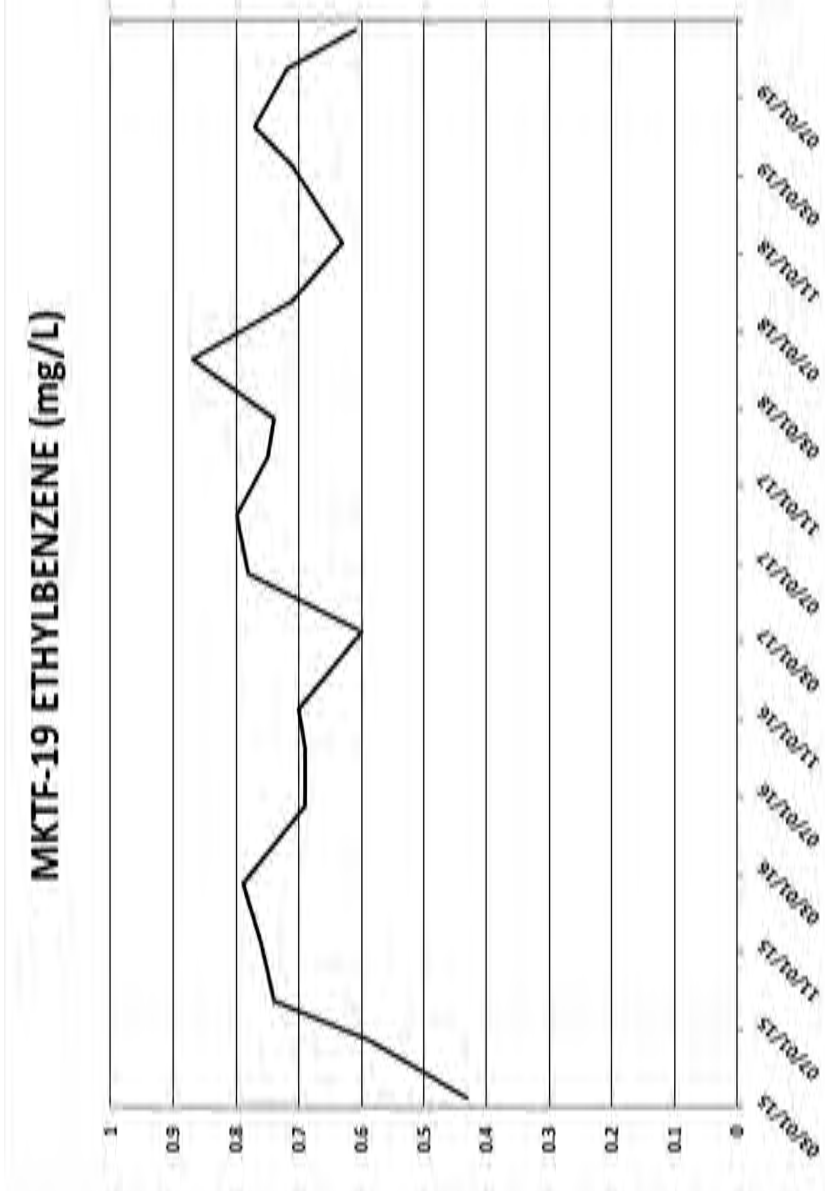
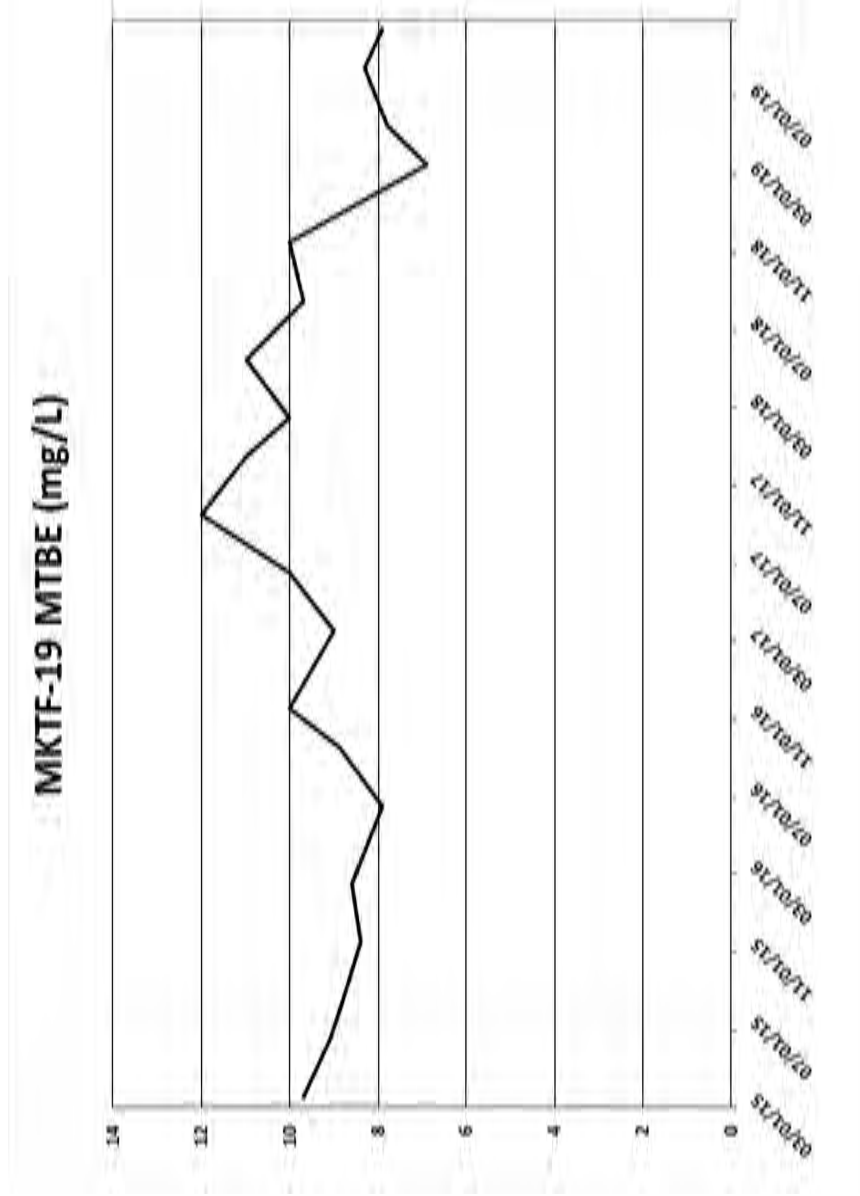
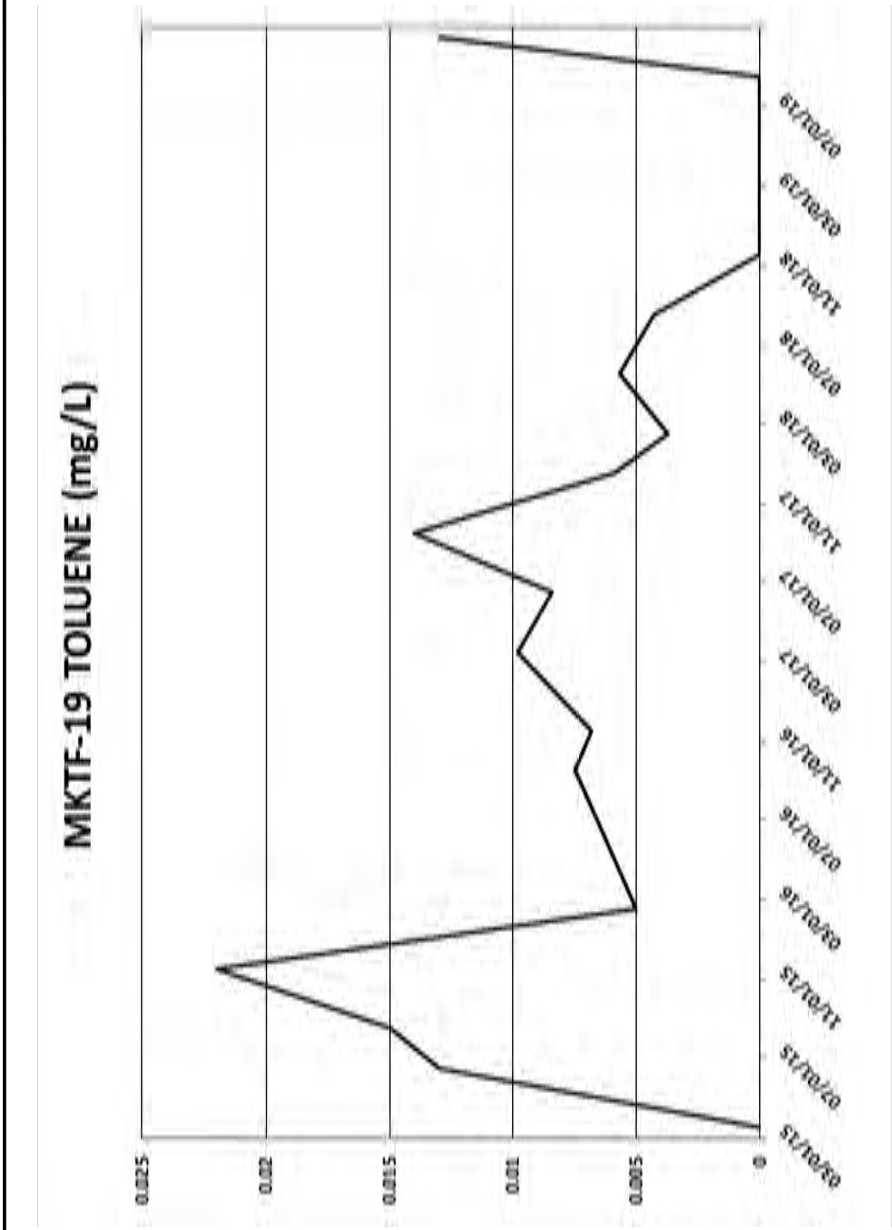
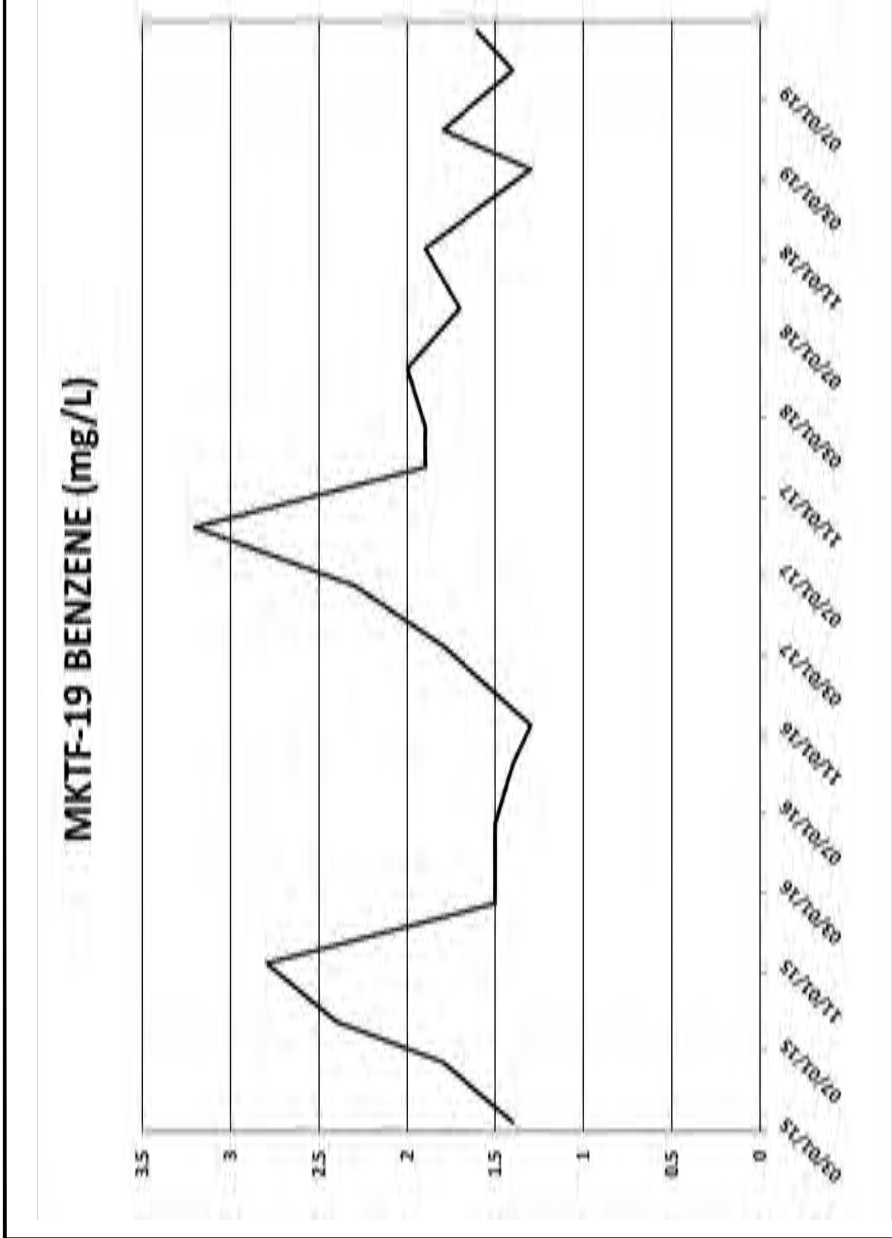
BTEX &amp; MTBE THROUGH 2019 - WELL MKTF-18

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**



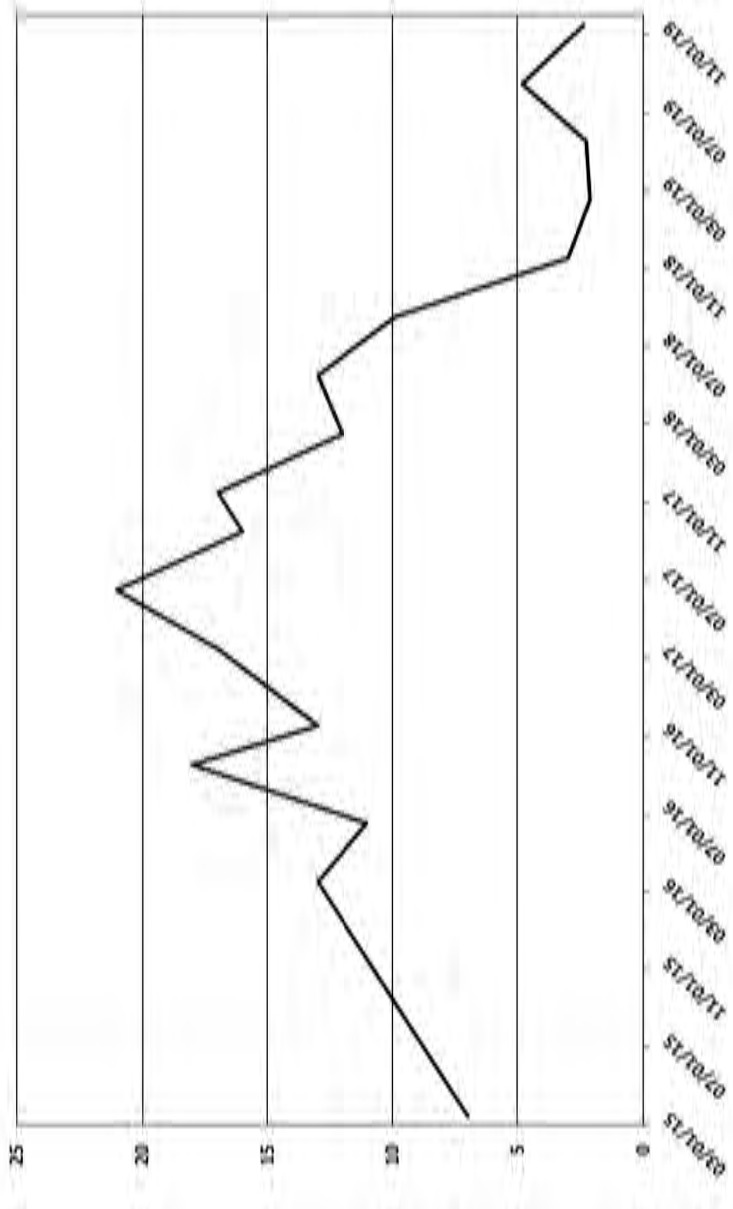
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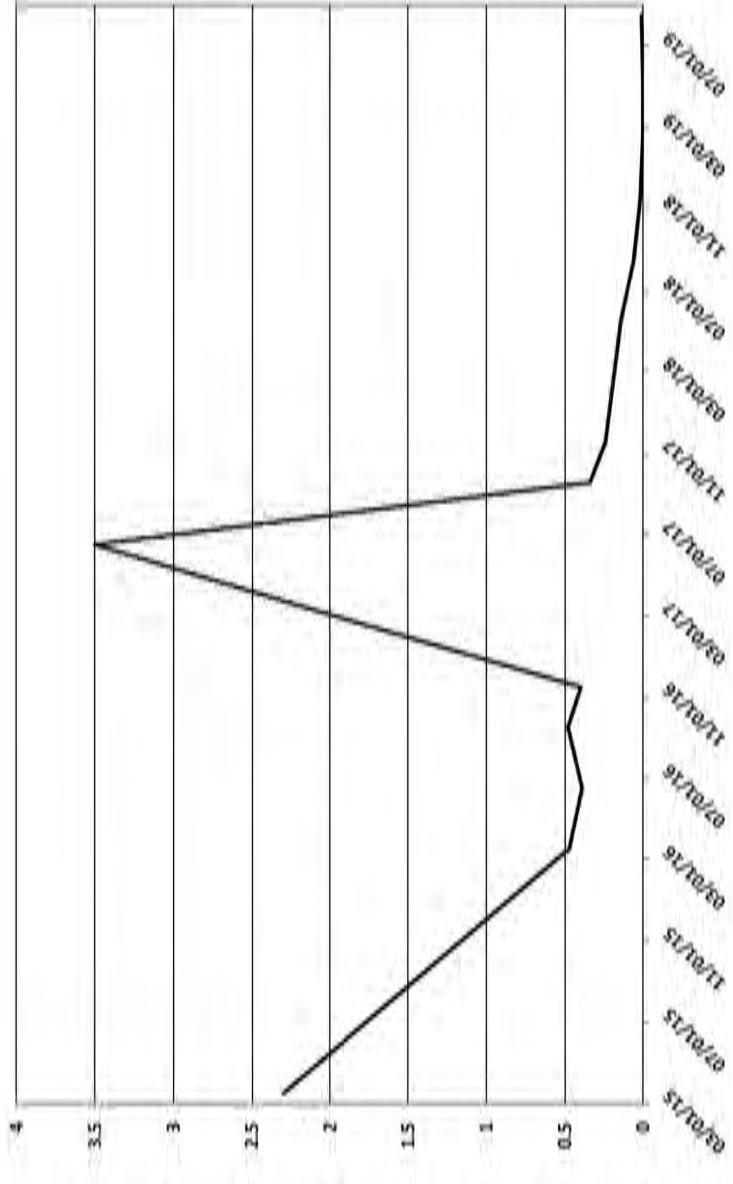




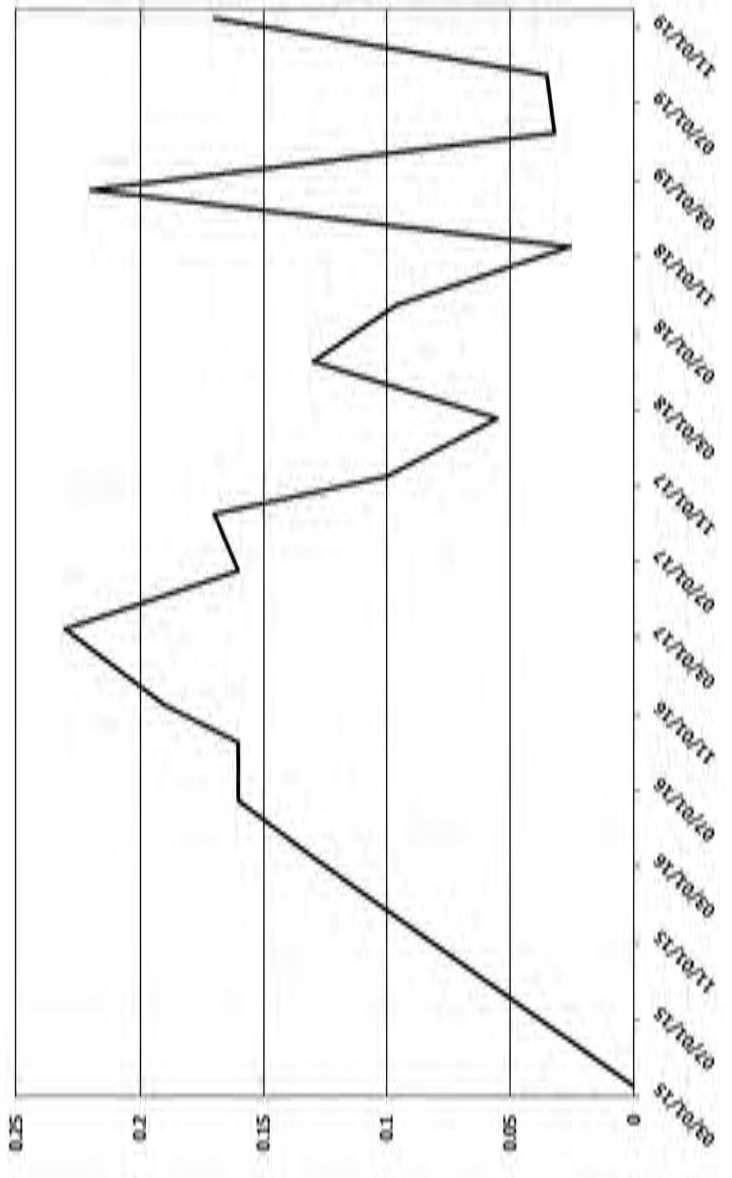
MKTF-20 BENZENE (mg/L)



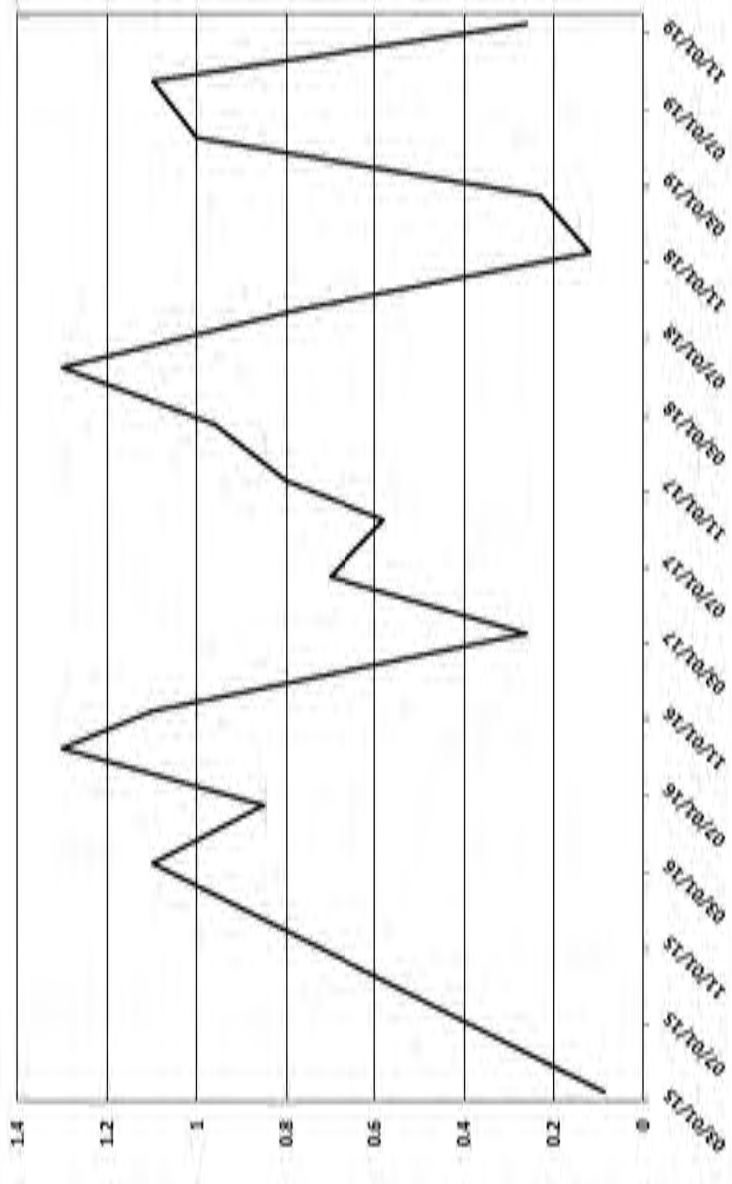
MKTF-20 TOLUENE (mg/L)



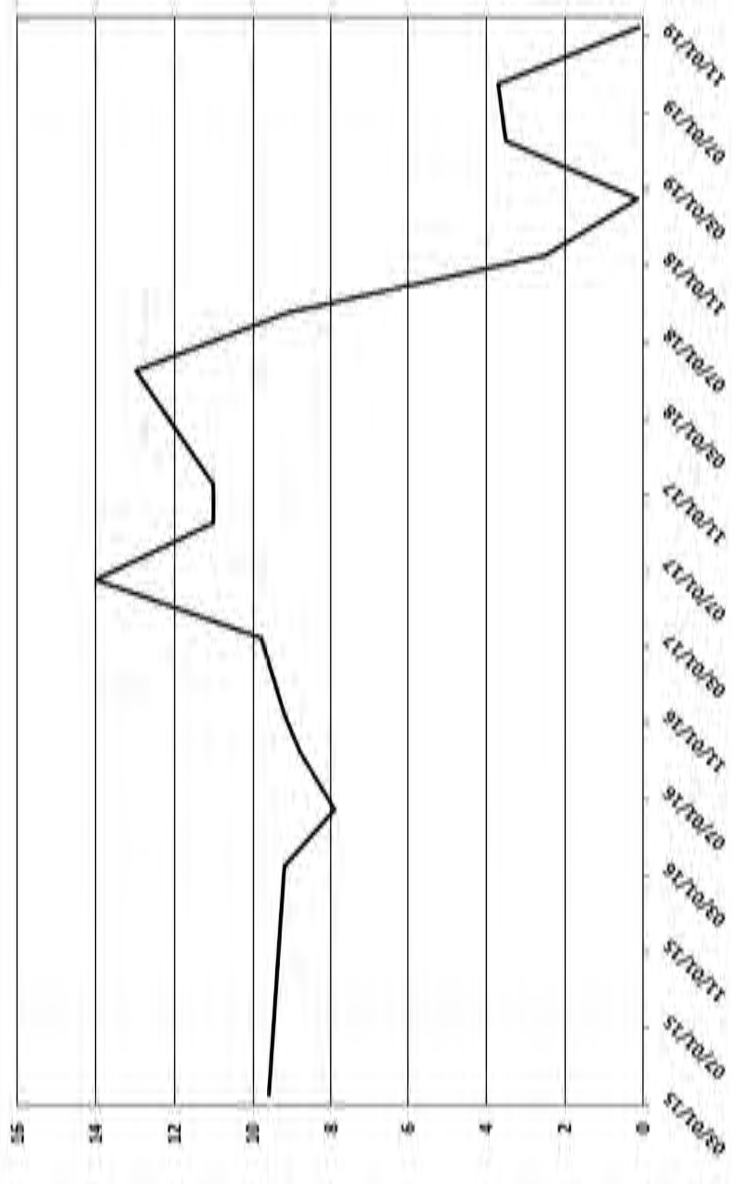
MKTF-20 MTBE (mg/L)



MKTF-20 ETHYLBENZENE (mg/L)



MKTF-20 TOTAL XYLENES (mg/L)





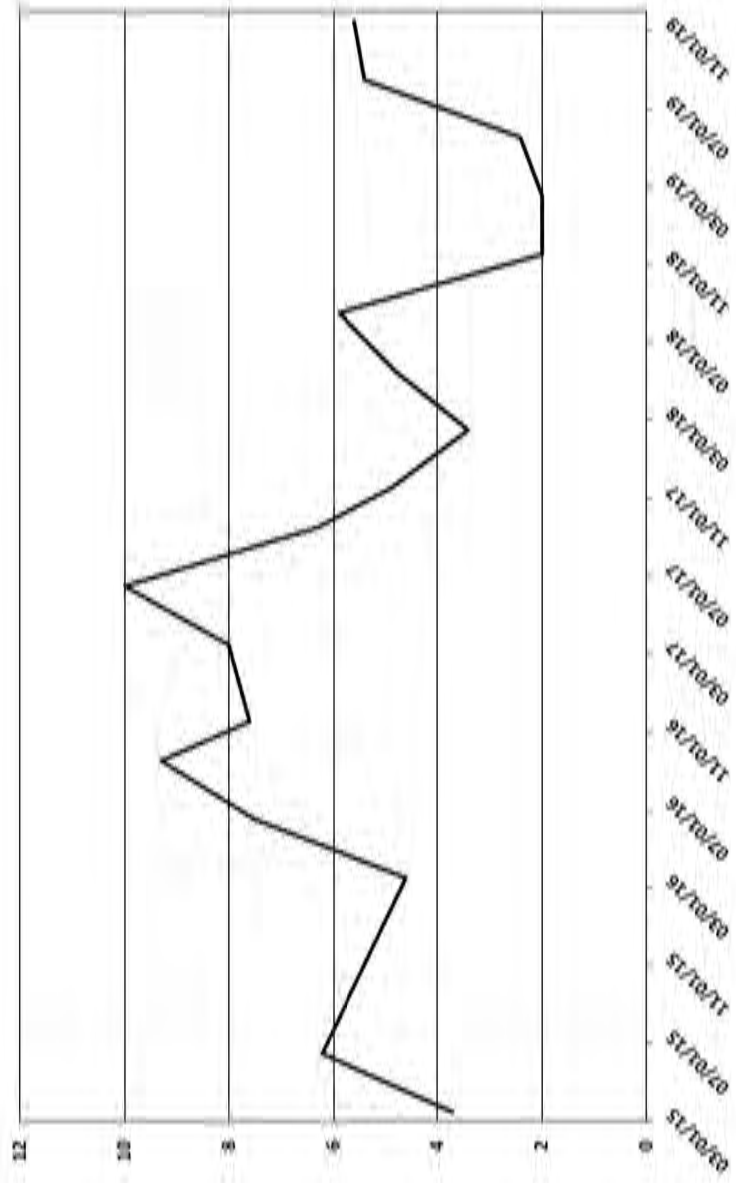
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BTEX & MTBE THROUGH 2019 - WELL MKTF-20		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

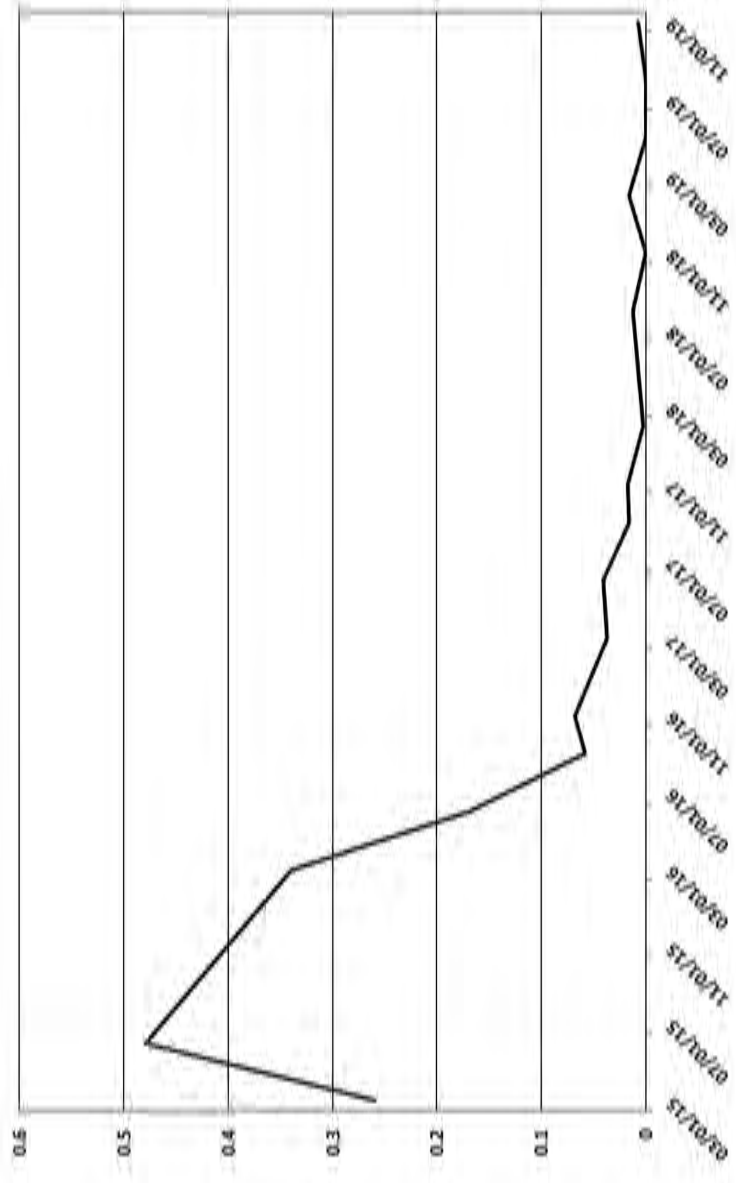
FIGURE 18.11



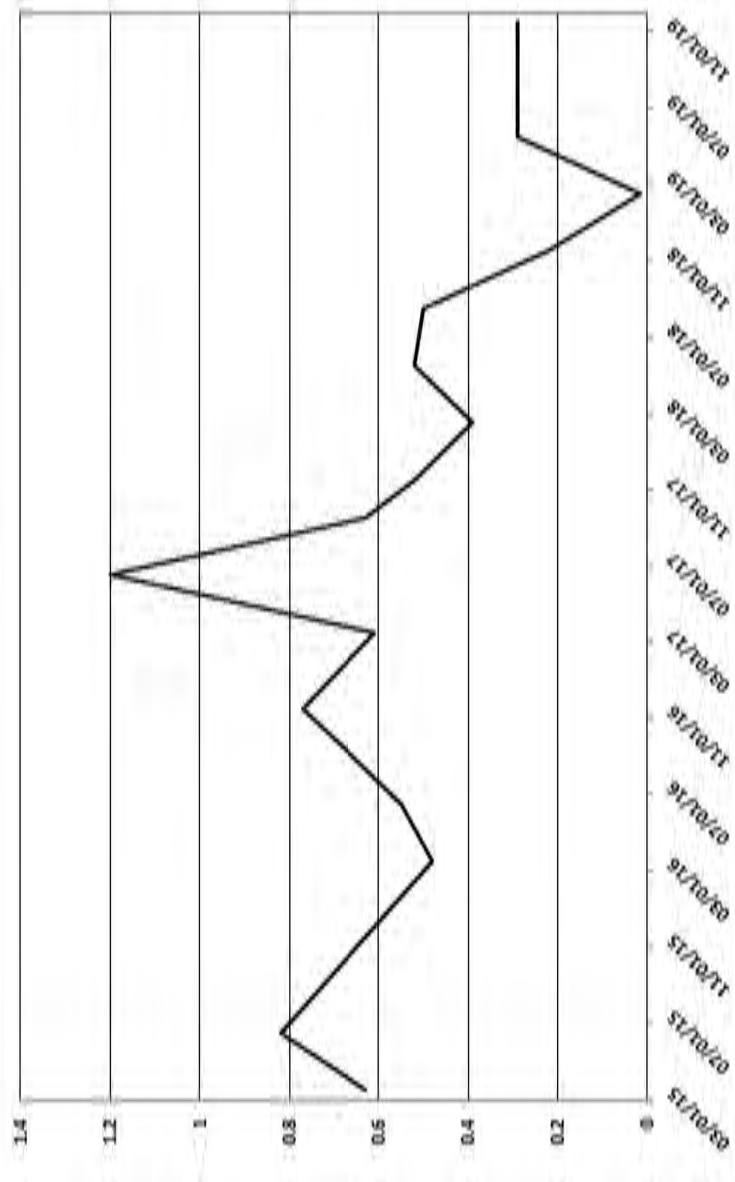
MKTF-21 BENZENE (mg/L)



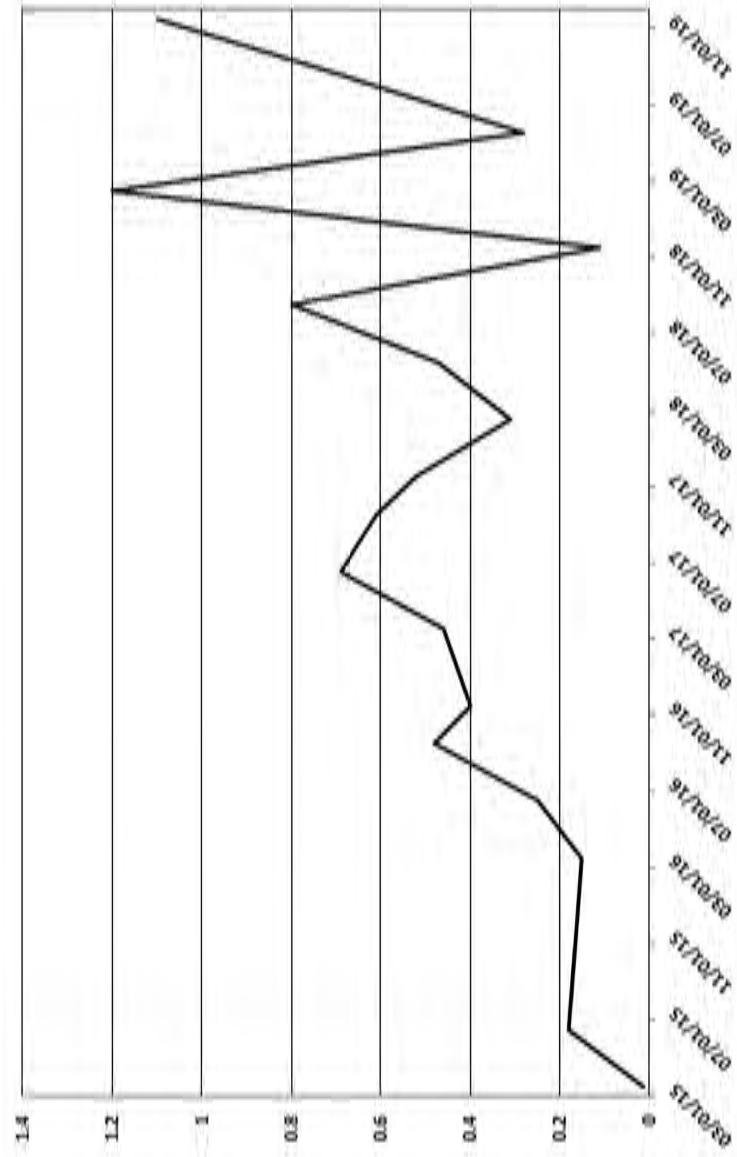
MKTF-21 TOLUENE (mg/L)



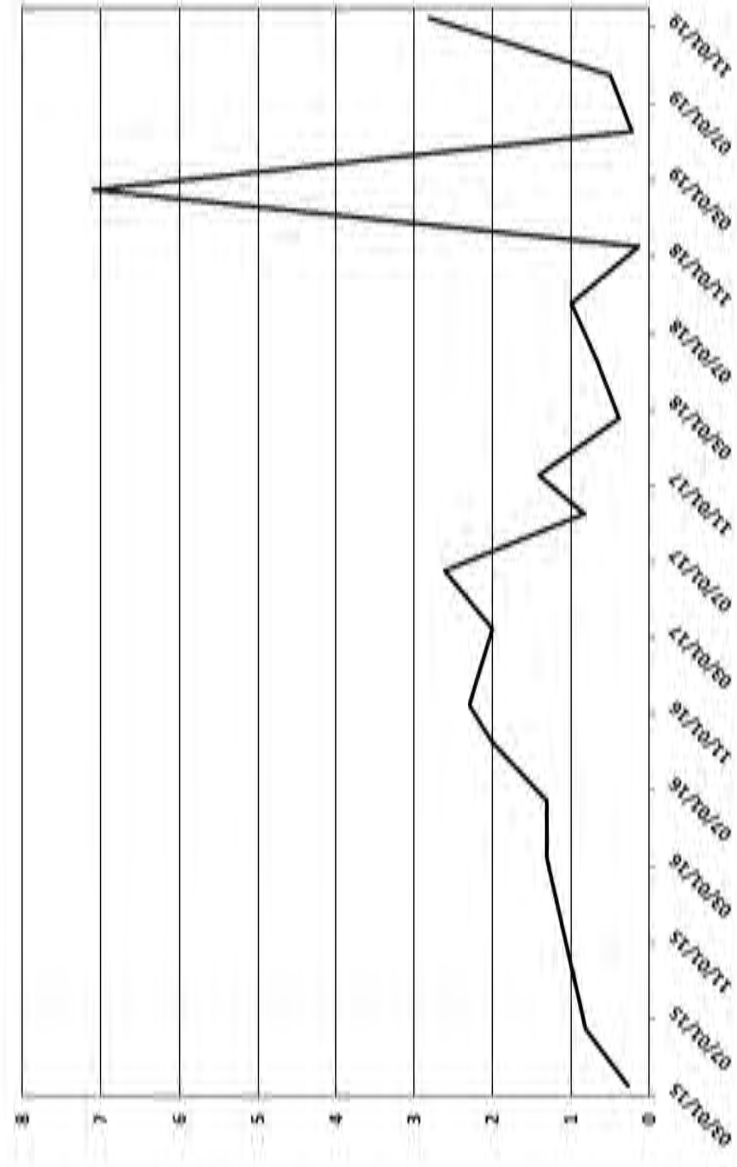
MKTF-21 MTBE (mg/L)



MKTF-21 ETHYLBENZENE (mg/L)



MKTF-21 TOTAL XYLENES (mg/L)





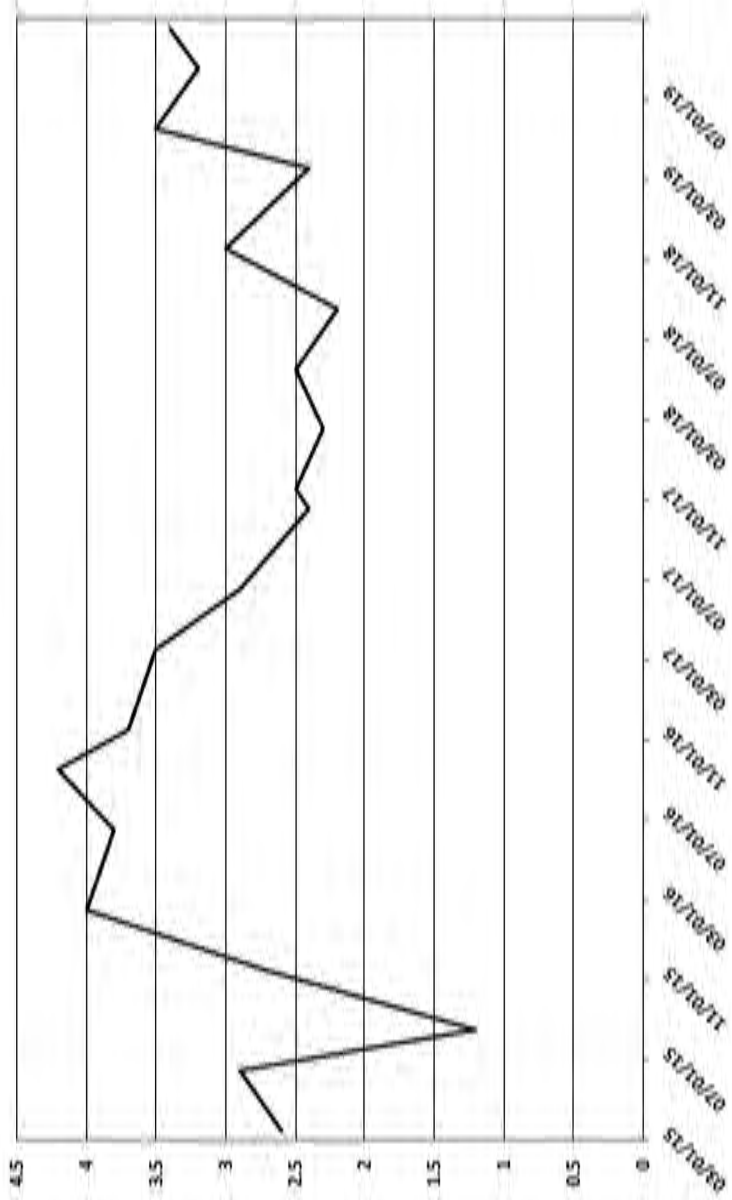
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BTEX & MTBE THROUGH 2019 - WELL MKTF-21		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

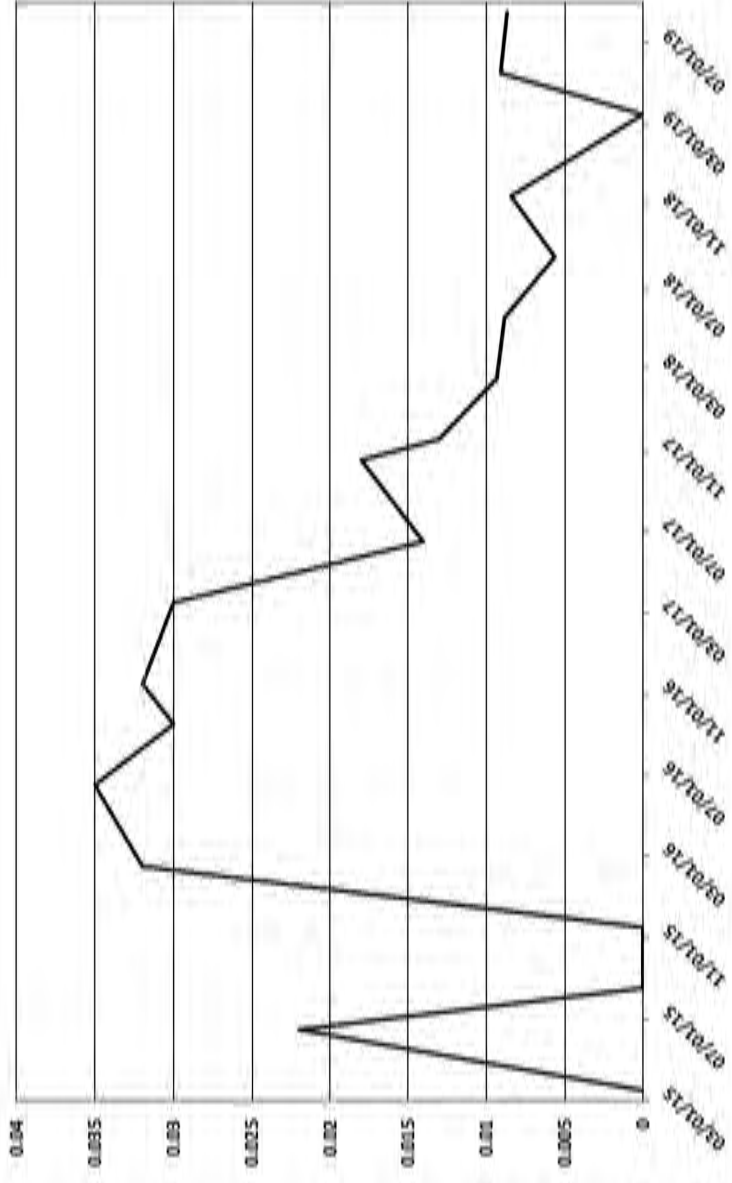
FIGURE 18.12



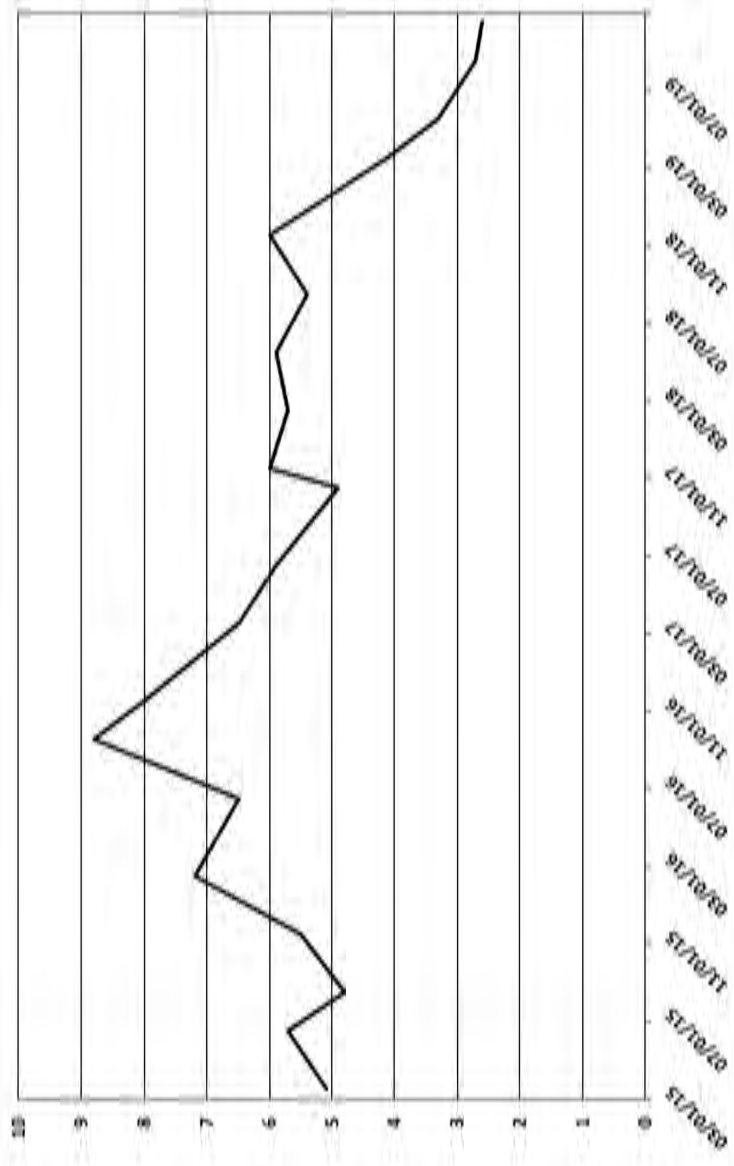
MKTF-22 BENZENE (mg/L)



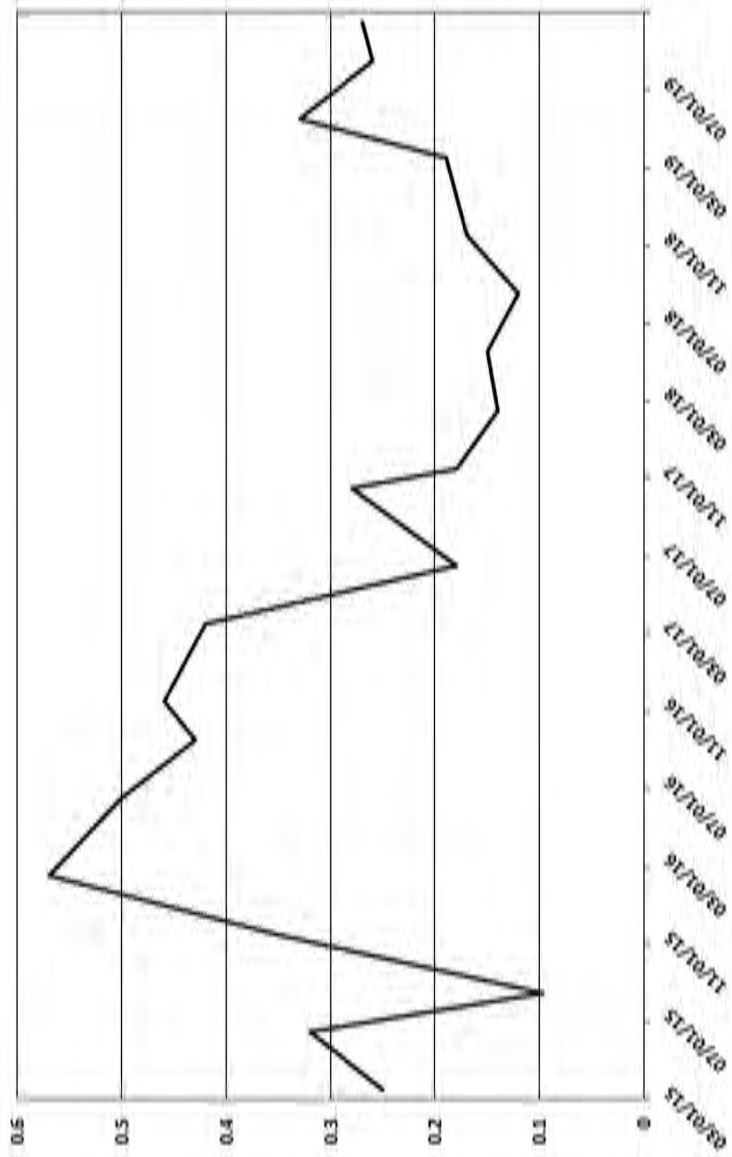
MKTF-22 TOLUENE (mg/L)



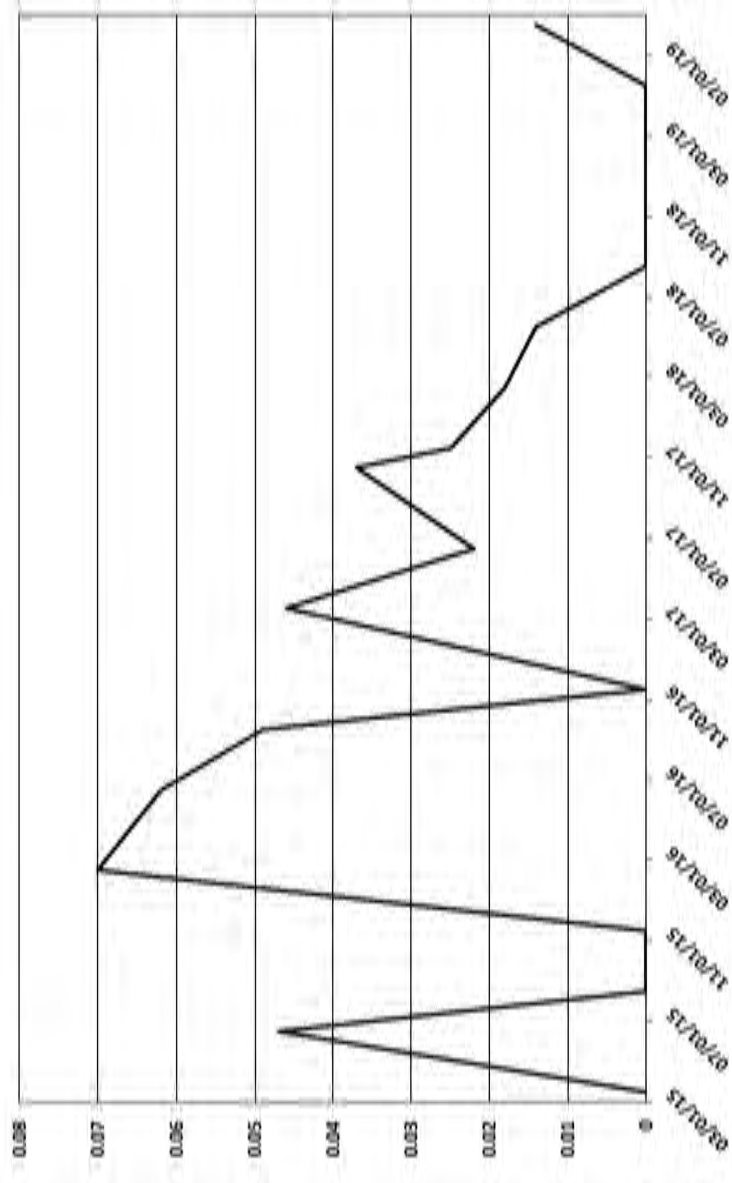
MKTF-22 MTBE (mg/L)



MKTF-22 ETHYLBENZENE (mg/L)



MKTF-22 TOTAL XYLENES (mg/L)





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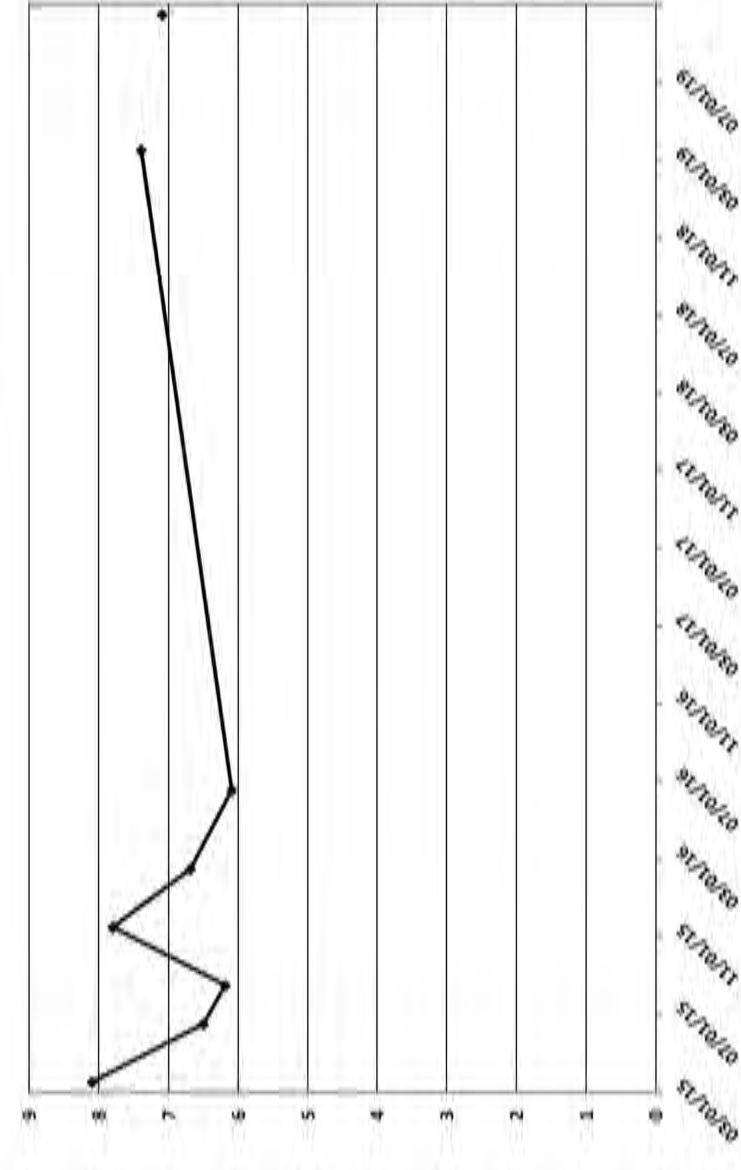
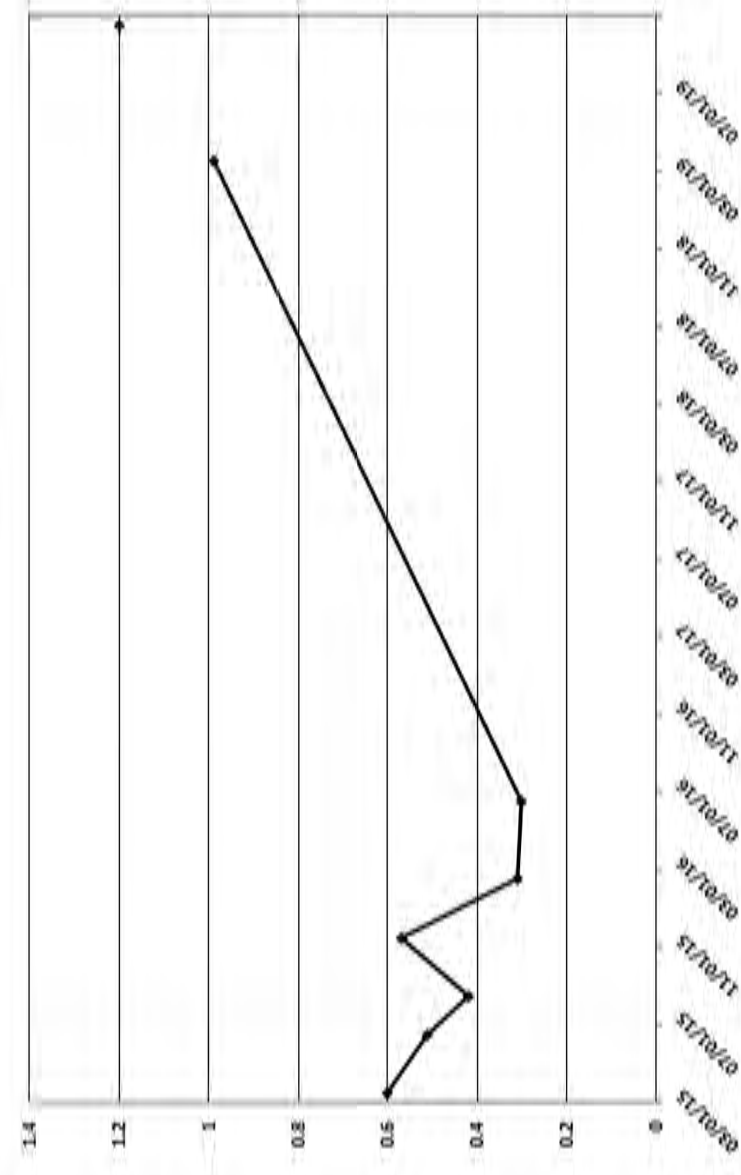
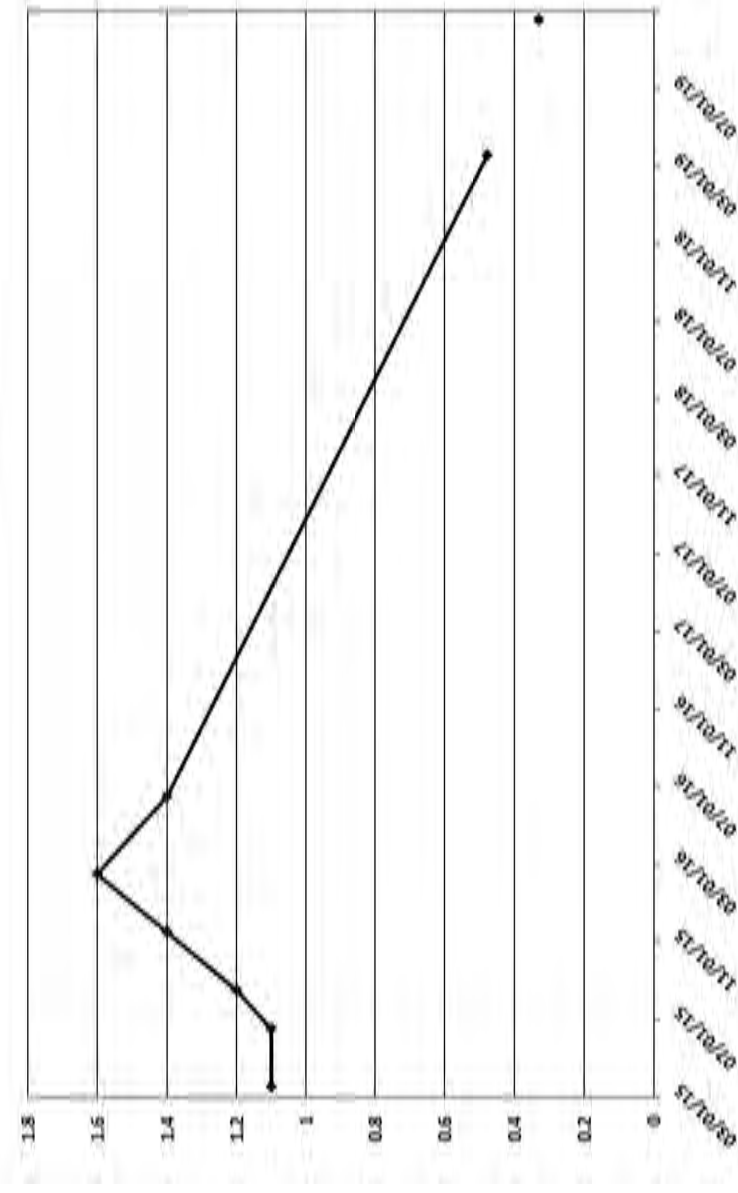
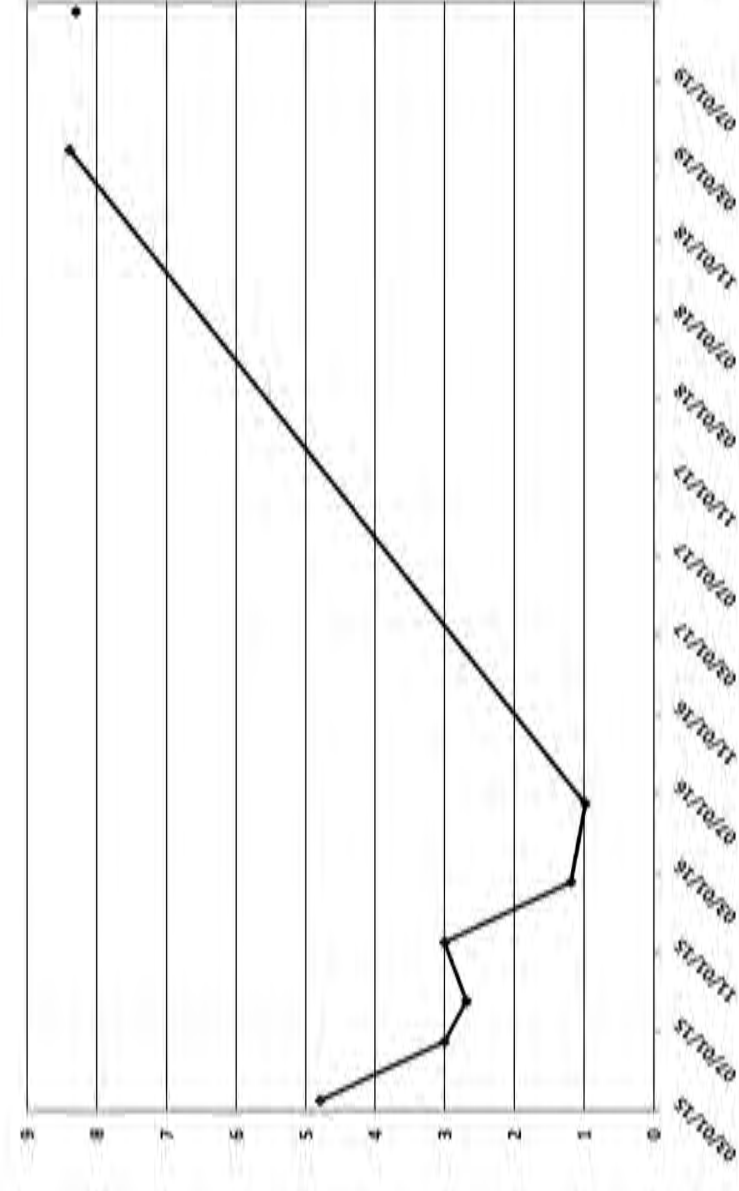
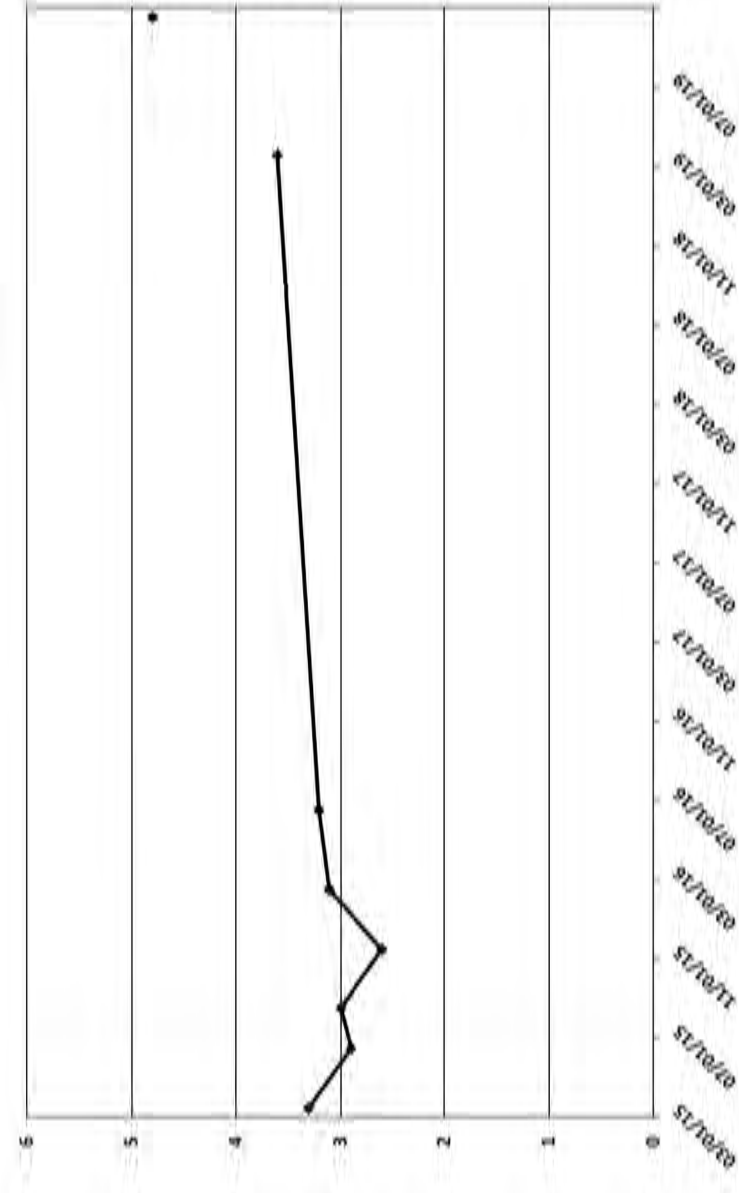
FIGURE 18.13

BTEX & MTBE THROUGH 2019 - WELL MKTF-22

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM Scale: NONE Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.1-18.20

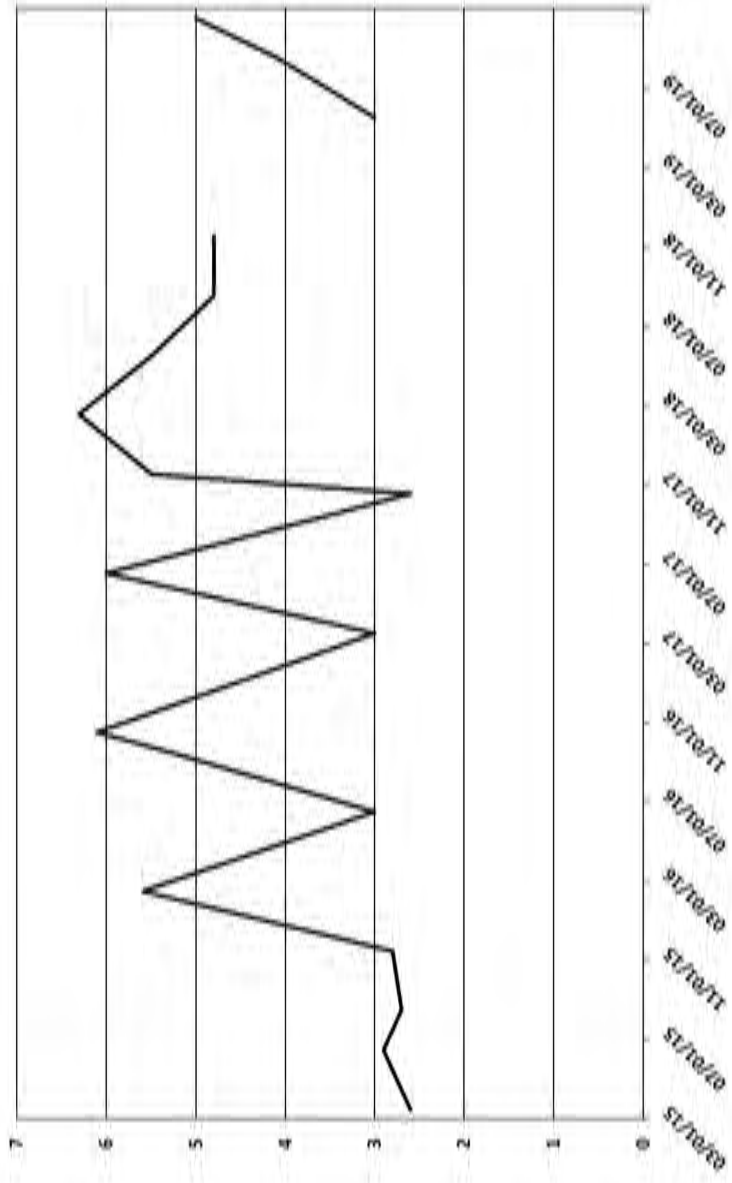




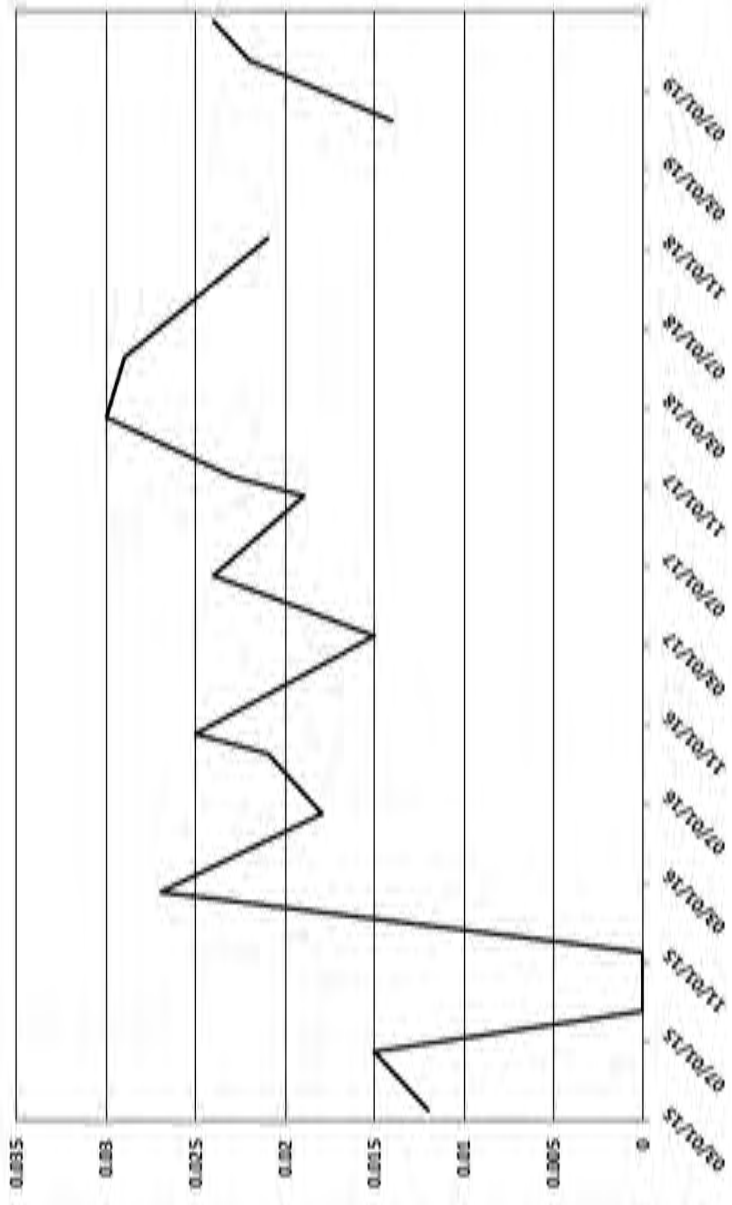
**FIGURE 18.14**



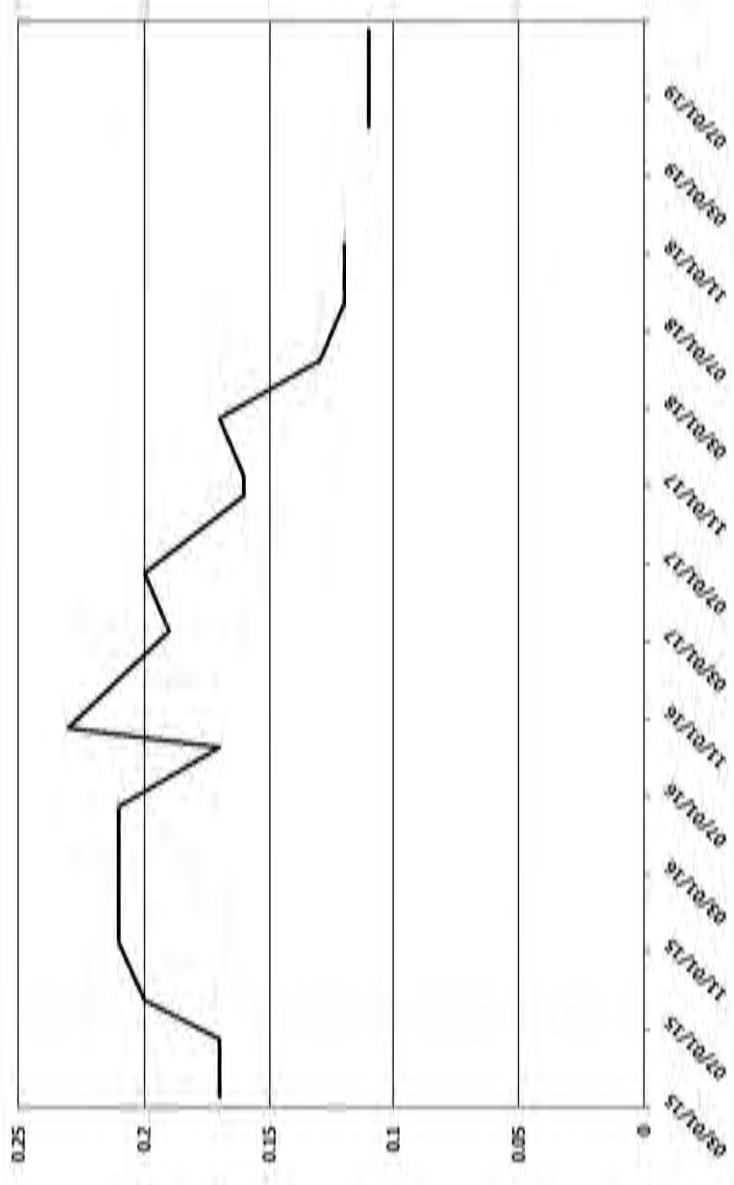
MKTF-24 BENZENE (mg/L)



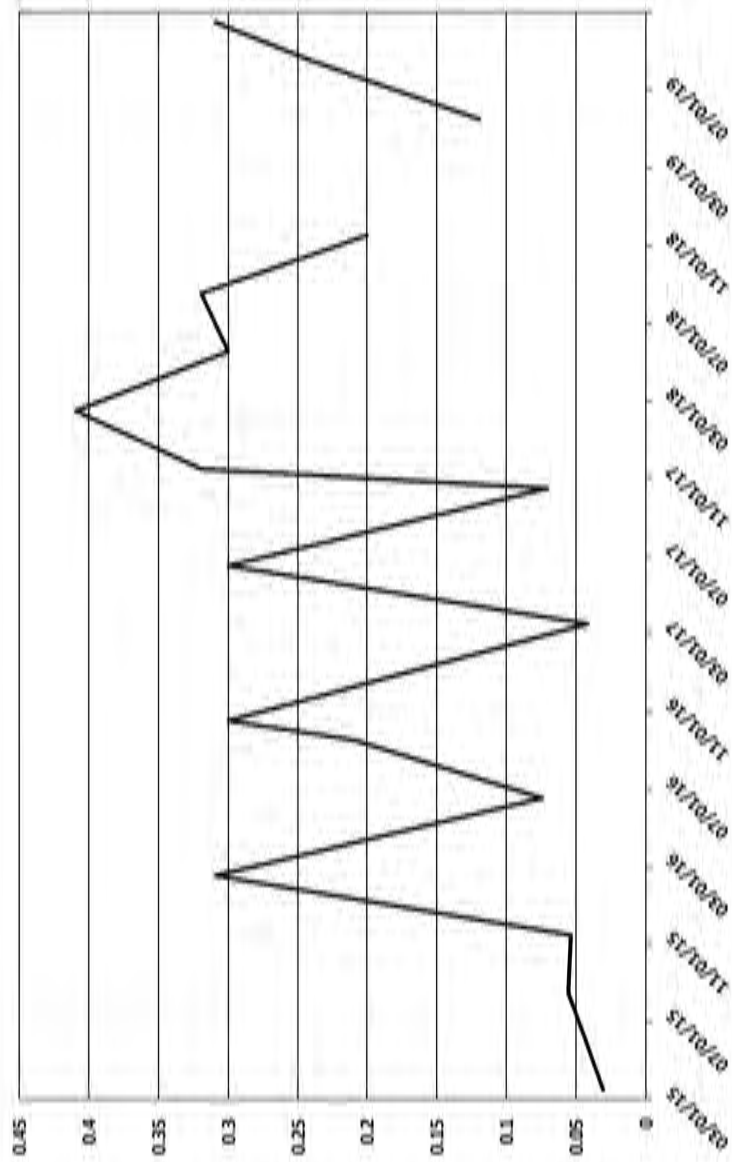
MKTF-24 TOLUENE (mg/L)



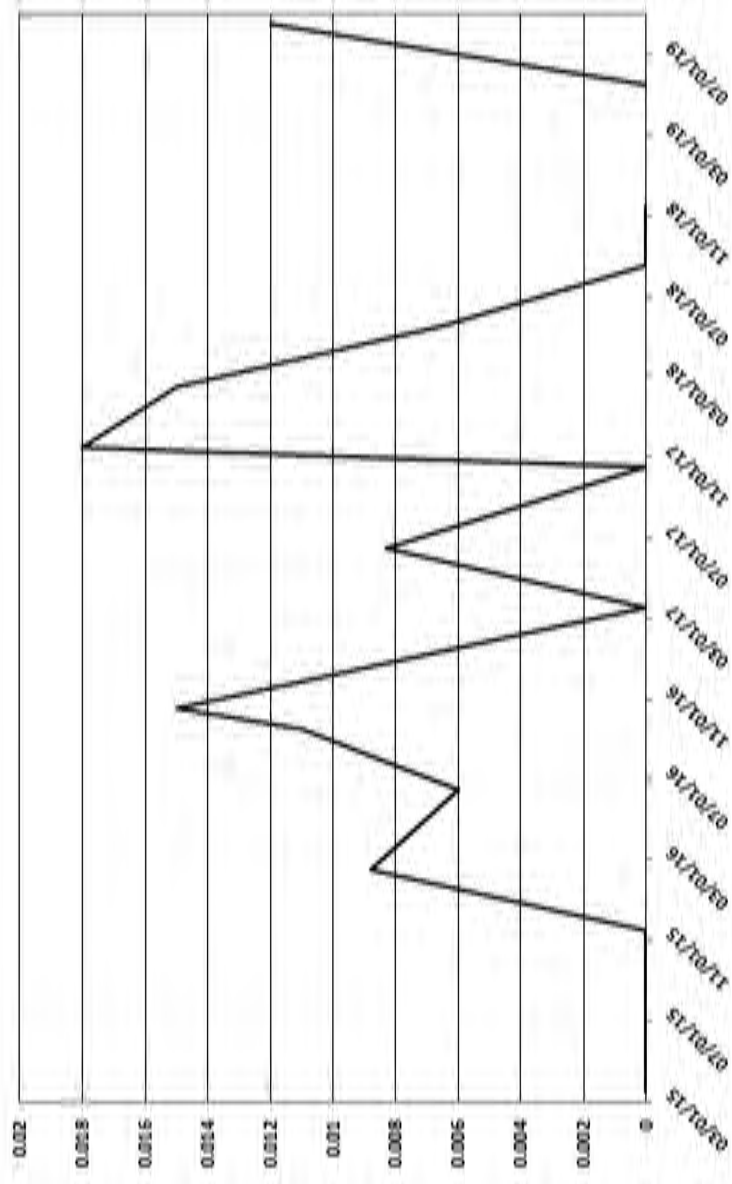
MKTF-24 MTBE (mg/L)



MKTF-24 ETHYLBENZENE (mg/L)



MKTF-24 TOTAL XYLENES (mg/L)





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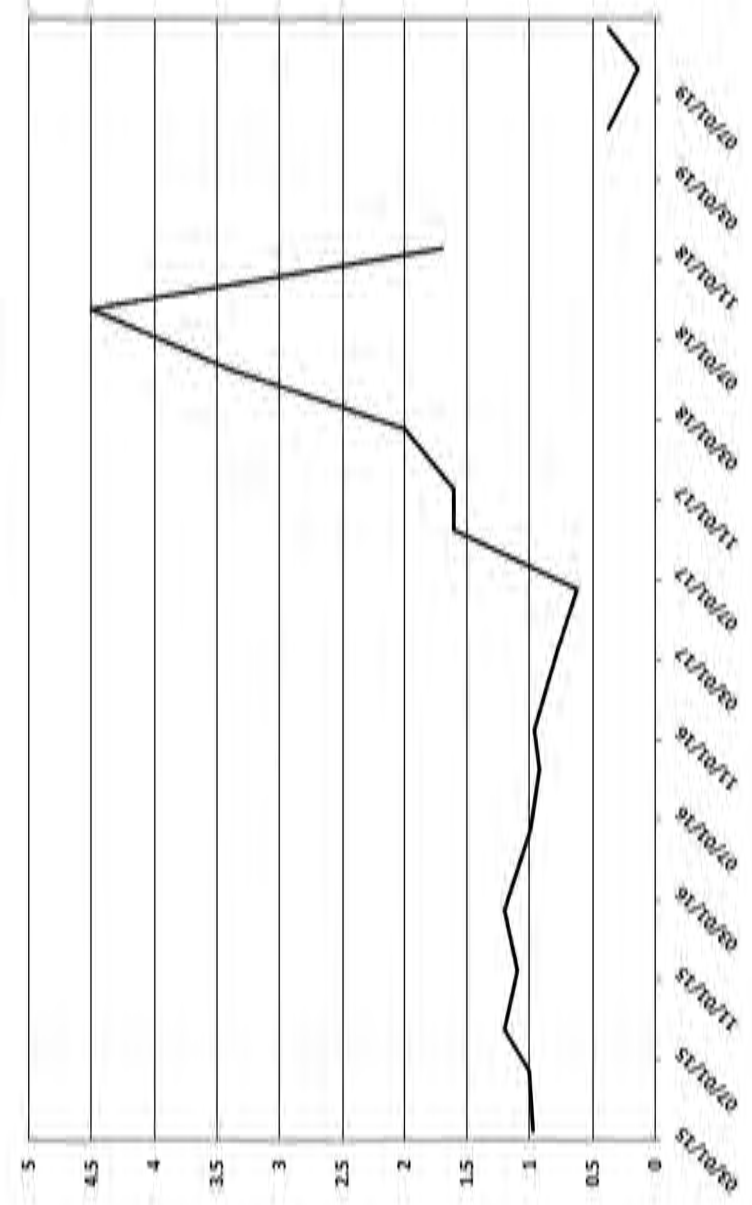
**FIGURE 18.15**

**BTEX & MTBE THROUGH 2019 - WELL MKTF-24**

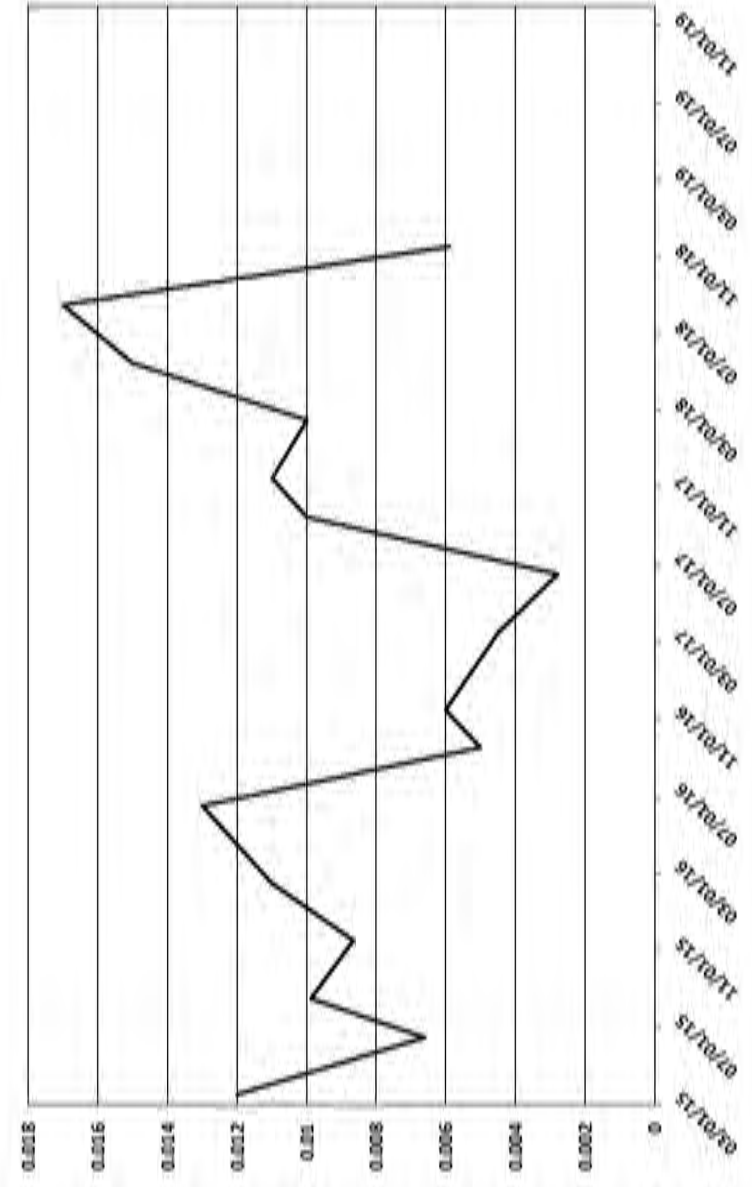
**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**



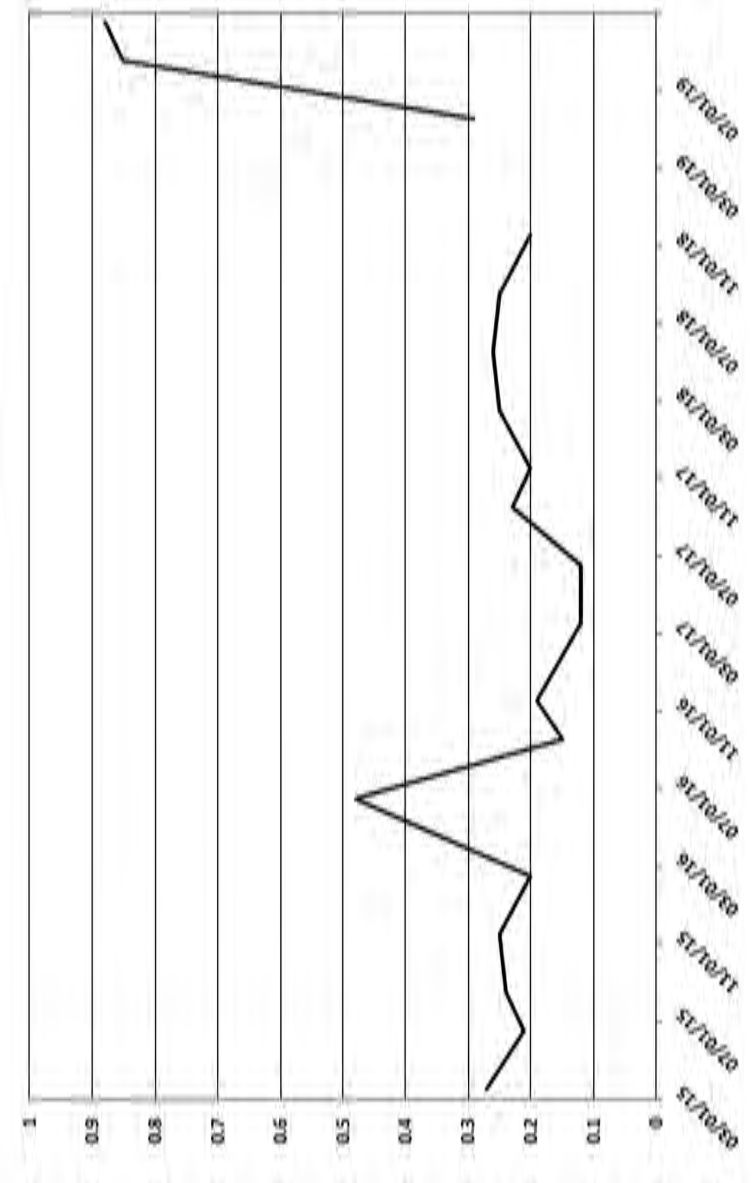
MKTF-25 BENZENE (mg/L)



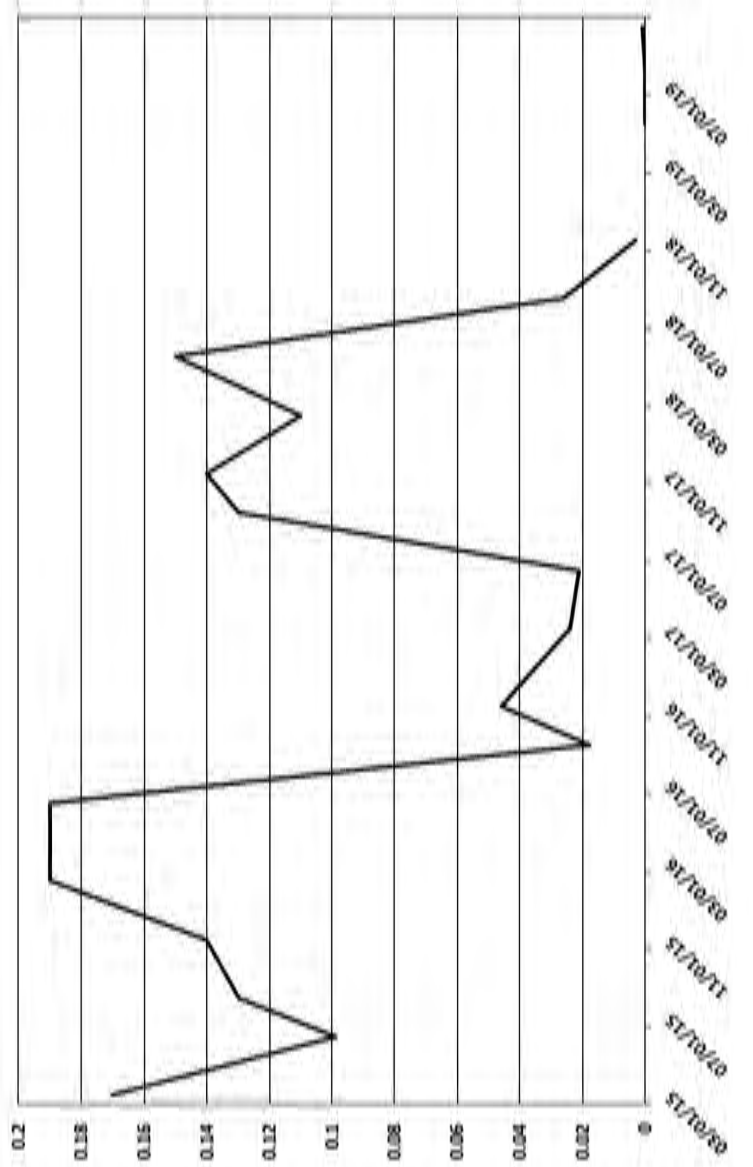
MKTF-25 TOLUENE (mg/L)



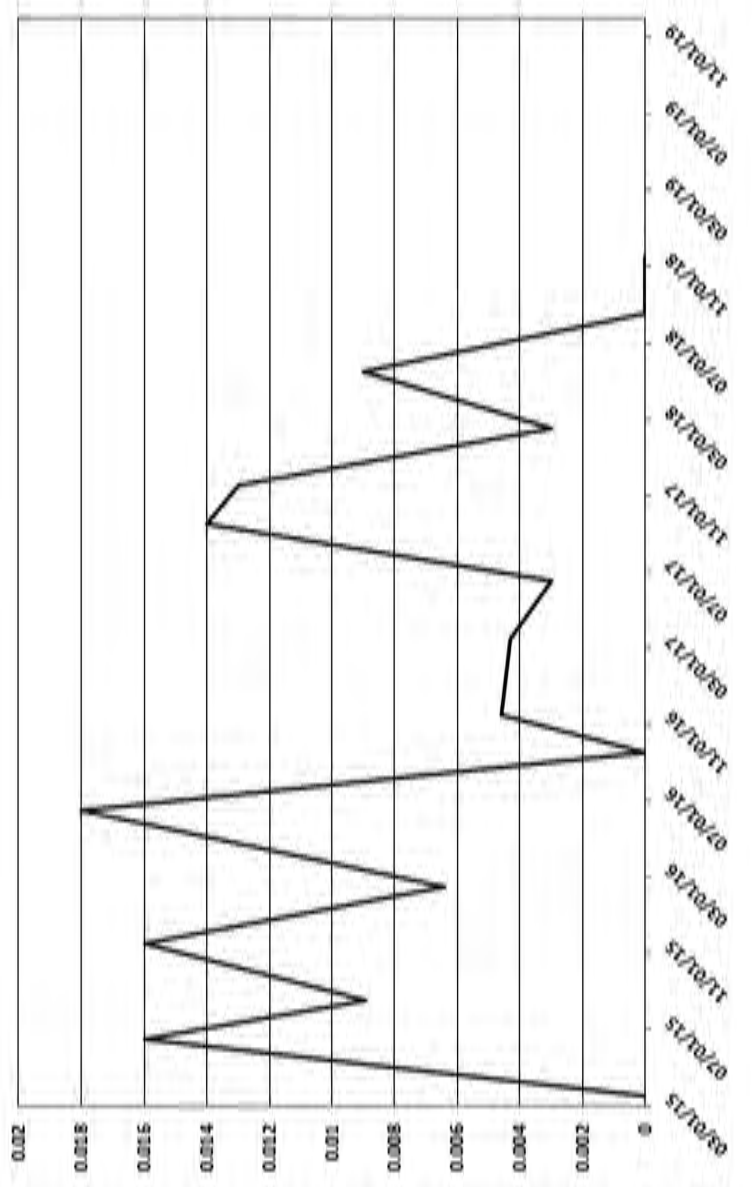
MKTF-25 MTBE (mg/L)



MKTF-25 ETHYLBENZENE (mg/L)



MKTF-25 TOTAL XYLENES (mg/L)





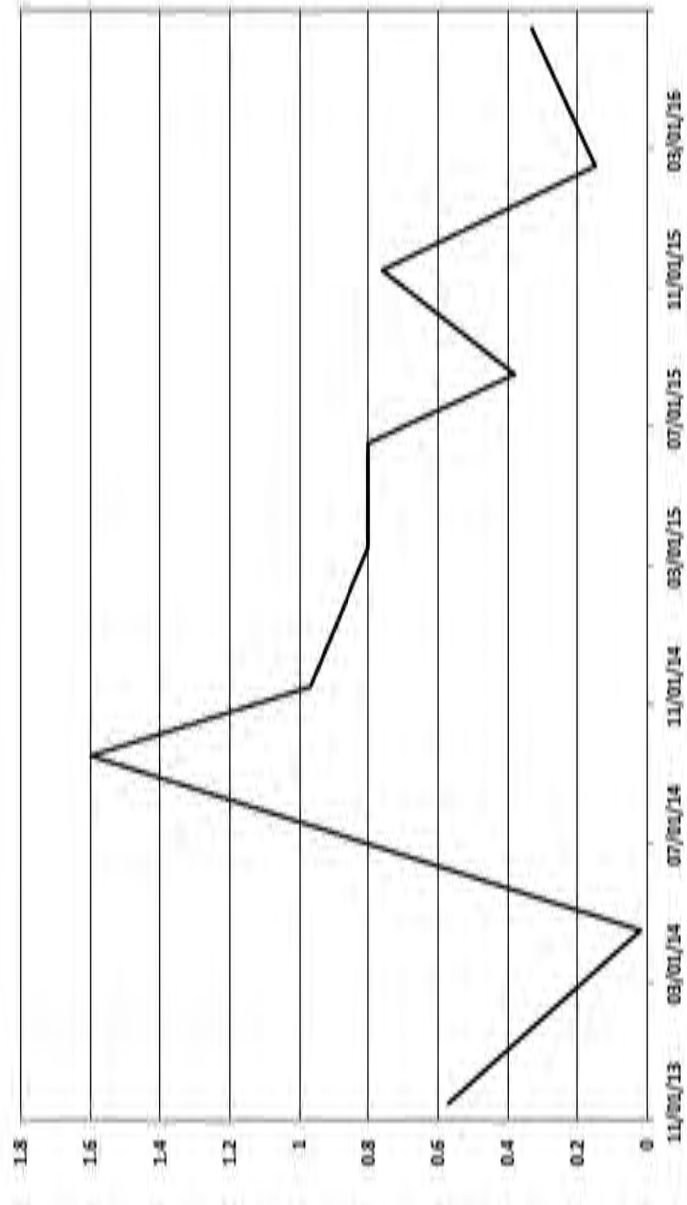
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BTEX & MTBE THROUGH 2019 - WELL MKTF-25		
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Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18-1-18.20

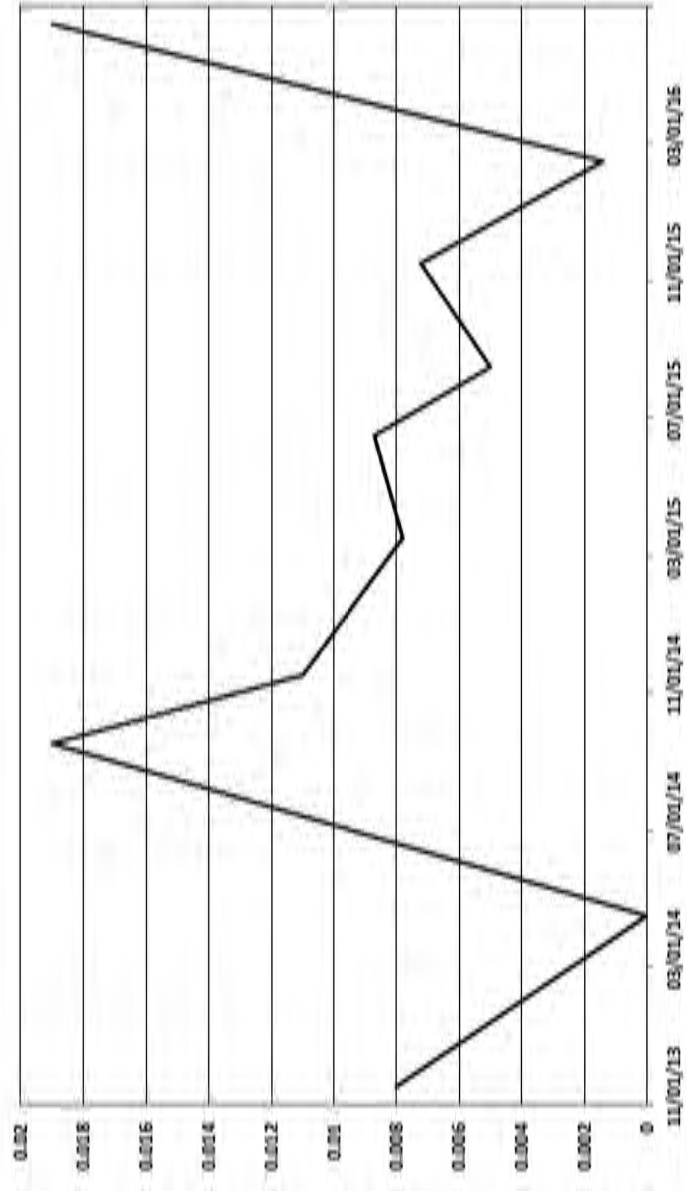
FIGURE 18.16



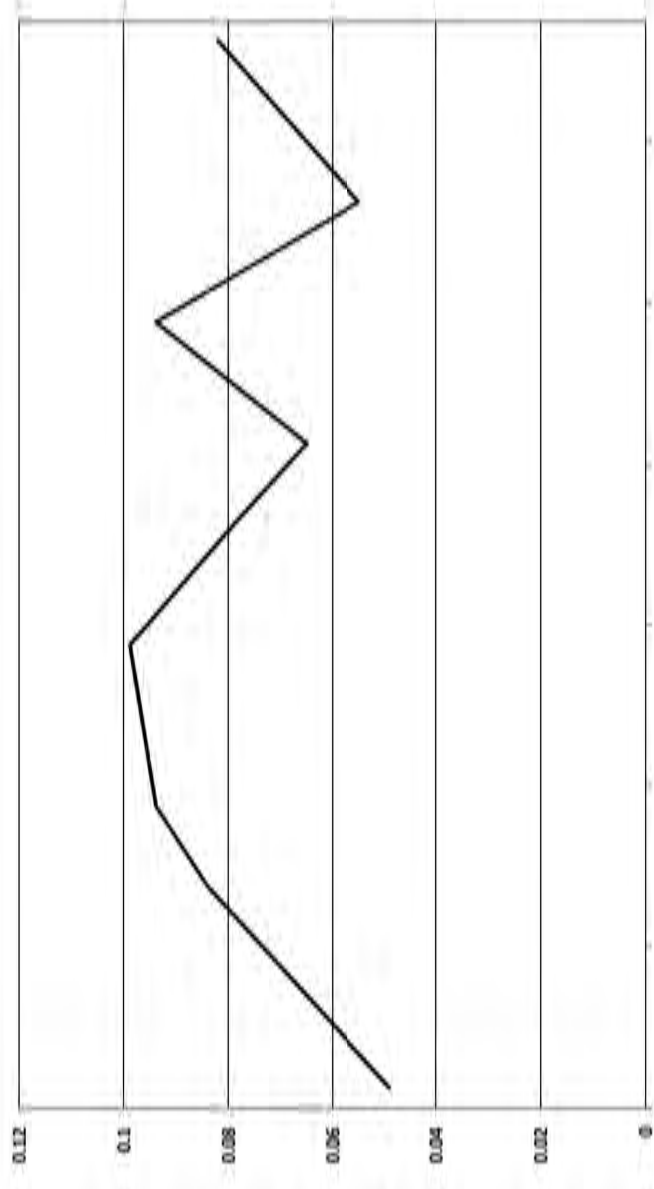
MKTF-26 BENZENE (mg/L)



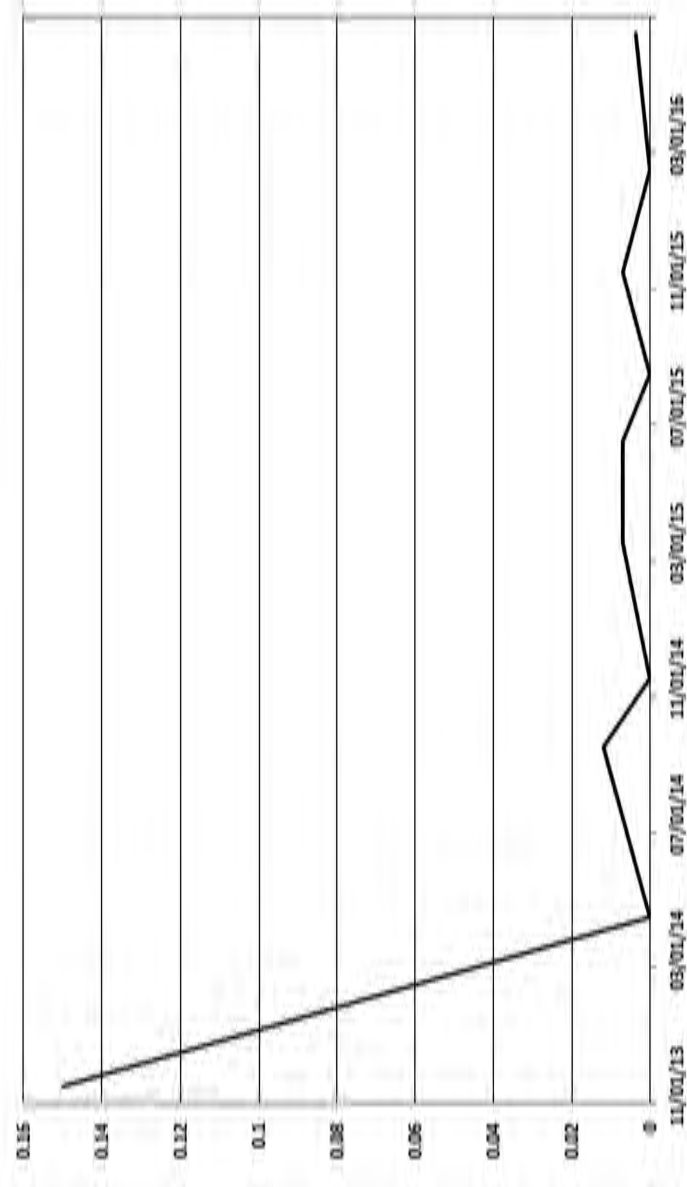
MKTF-26 TOLUENE (mg/L)



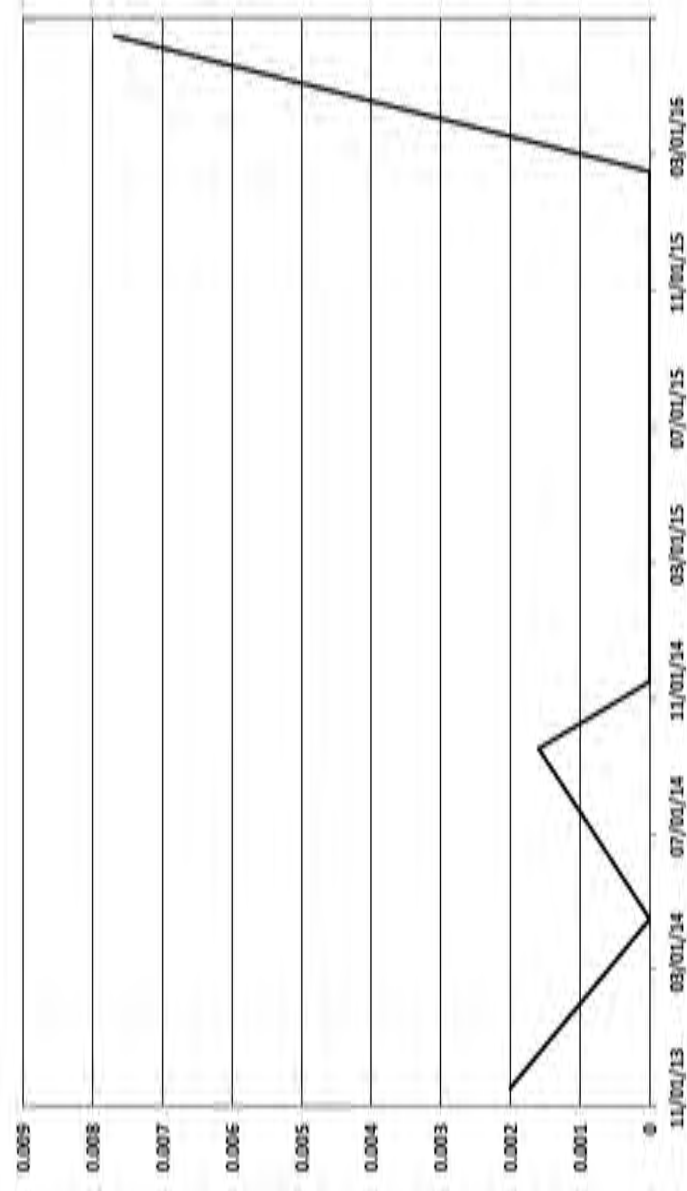
MKTF-26 MTBE (mg/L)



MKTF-26 ETHYLBENZENE (mg/L)



MKTF-26 TOTAL XYLENES (mg/L)





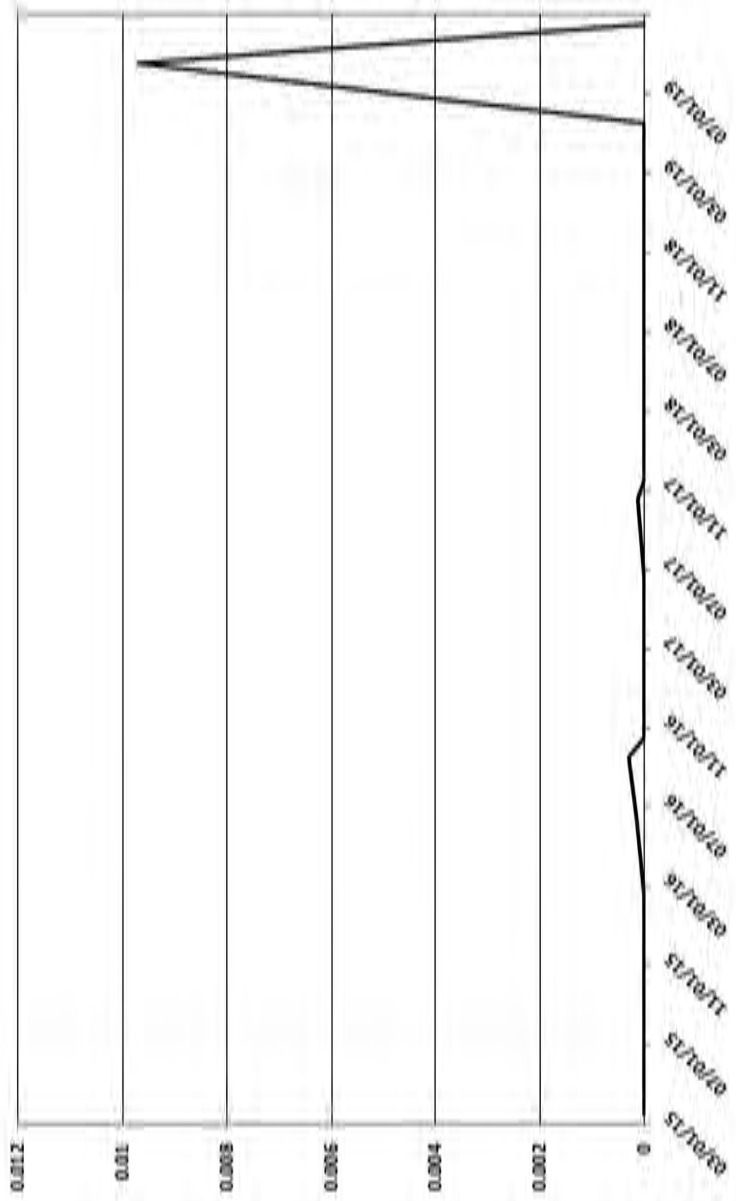
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BTEX & MTBE THROUGH 2019 - WELL MKTF-26		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.1-18.20

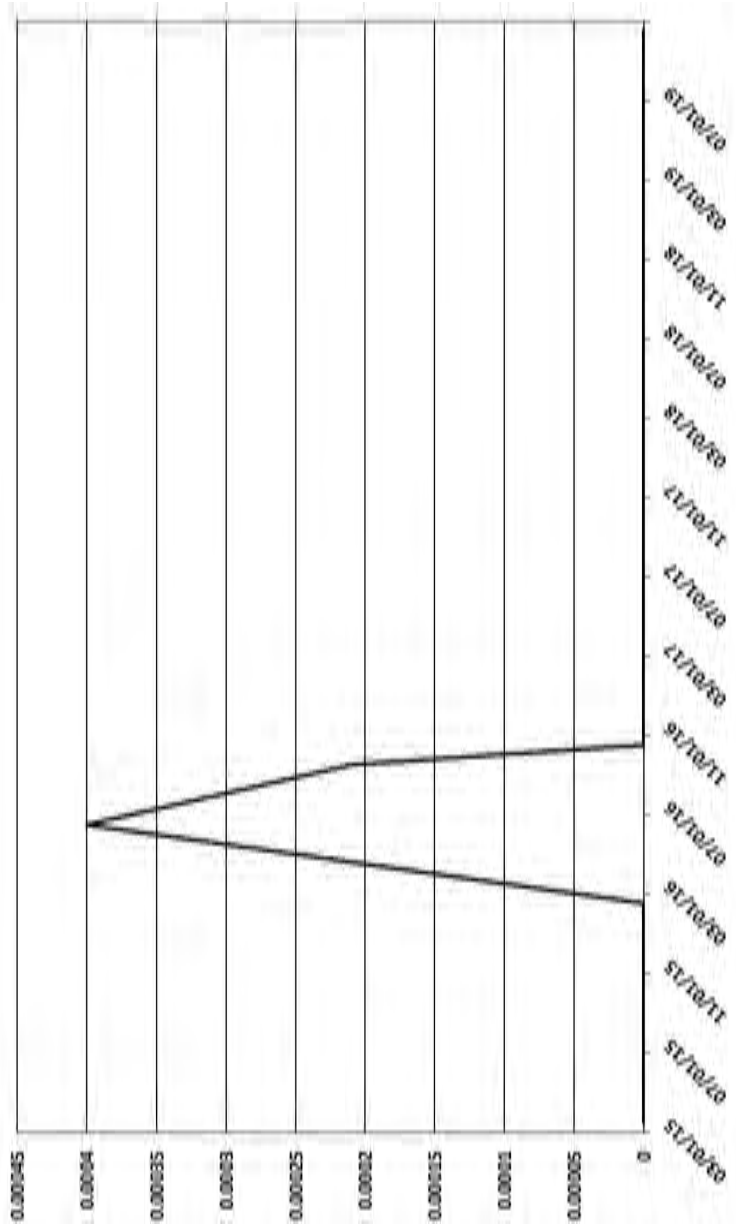
FIGURE 18.17



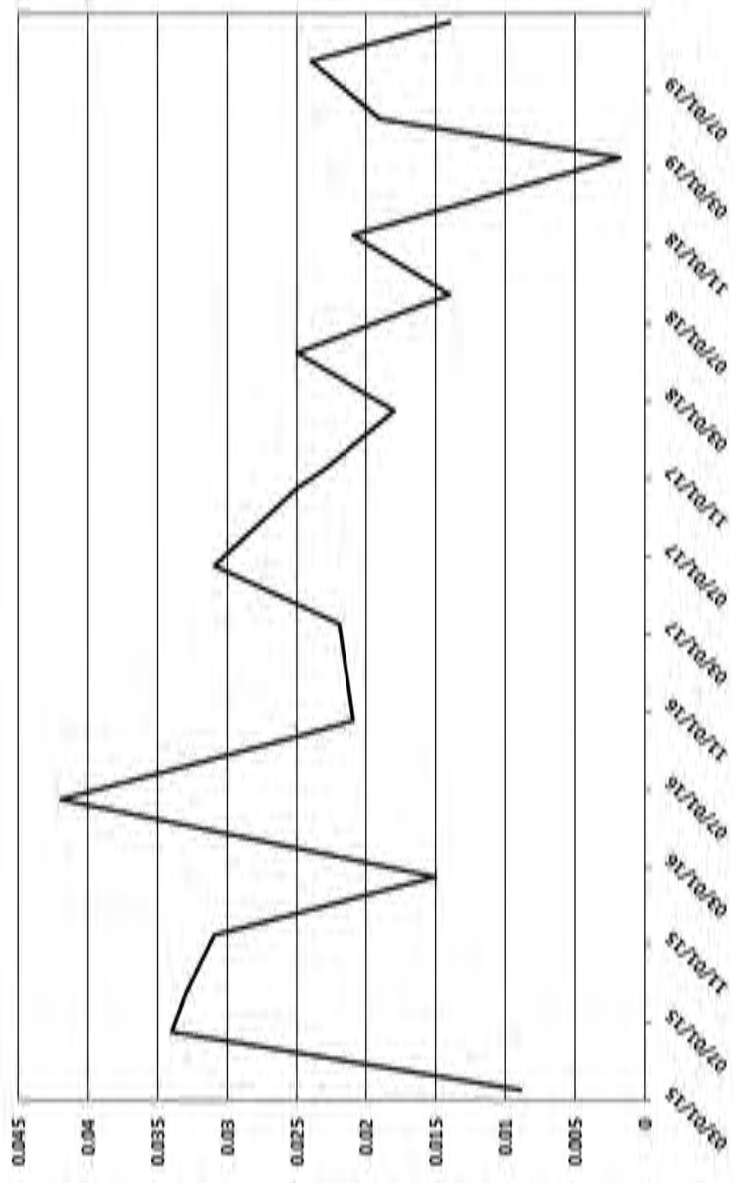
MKTF-27 BENZENE (mg/L)



MKTF-27 TOLUENE (mg/L)



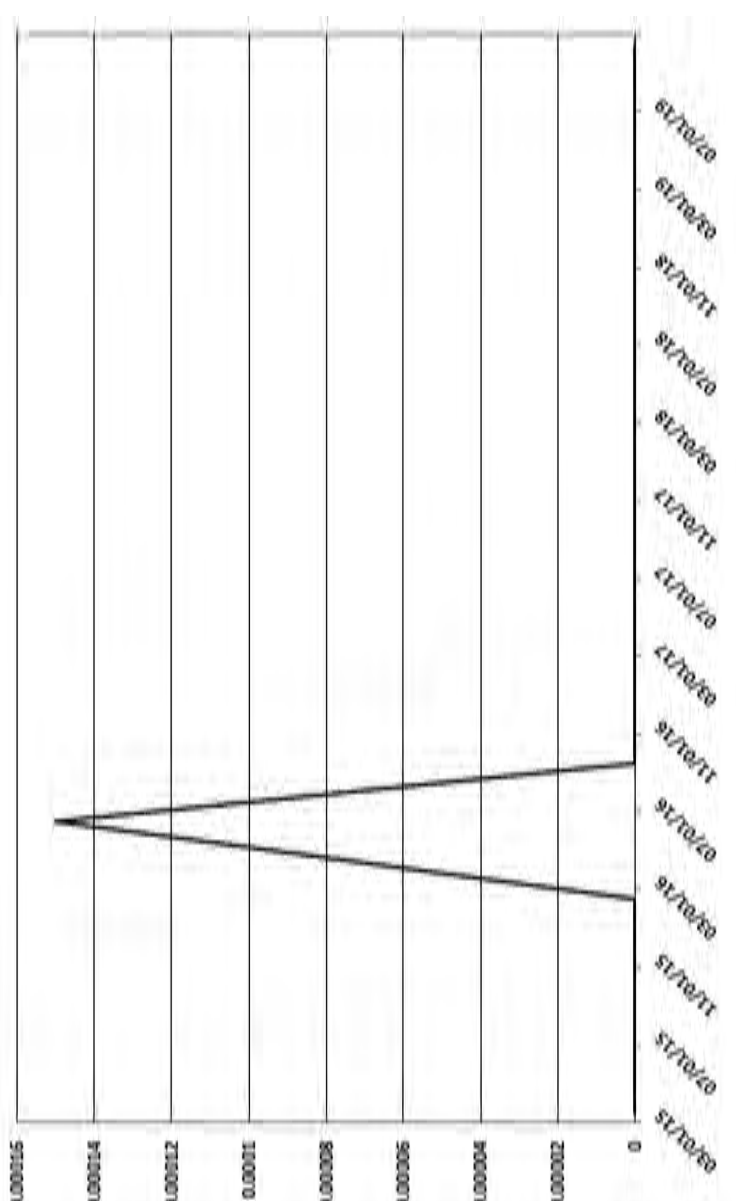
MKTF-27 MTBE (mg/L)



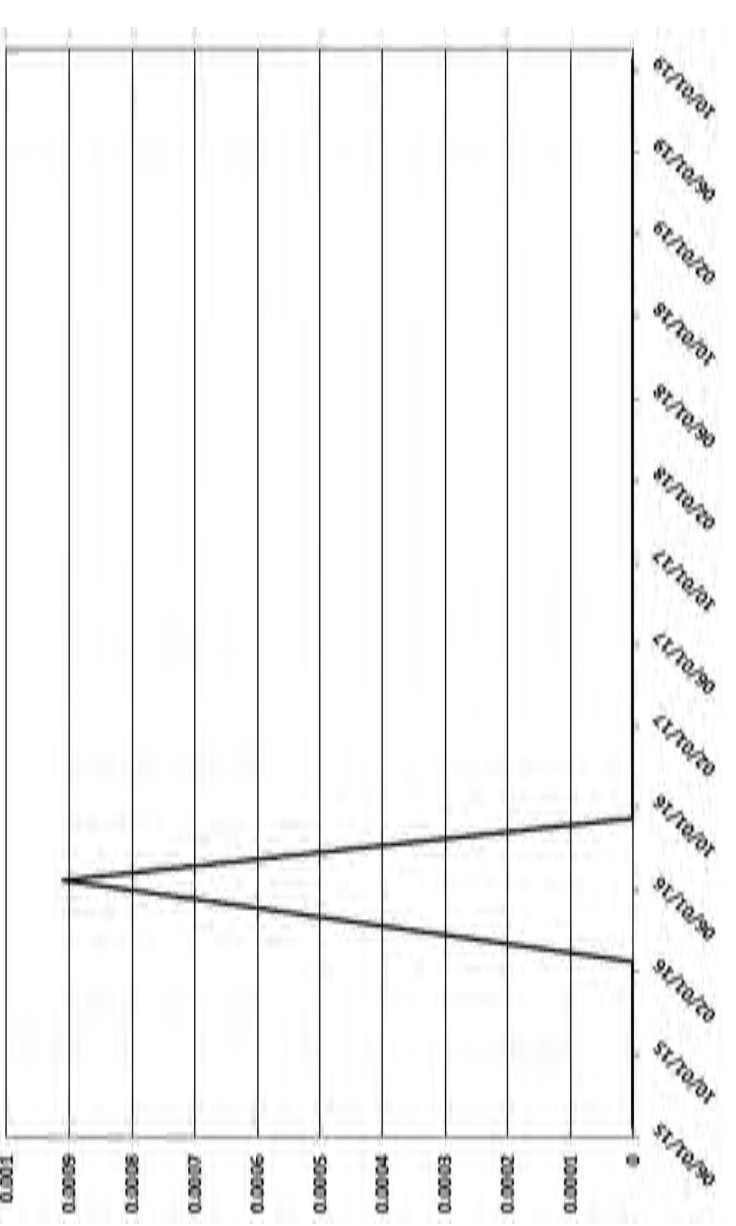
MKTF-27 TOTAL XYLENES (mg/L)



MKTF-27 ETHYLBENZENE (mg/L)



MKTF-27 TOTAL XYLENES (mg/L)





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BTEX & MTBE THROUGH 2019 - WELL MKTF-27		
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Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.1-18.20

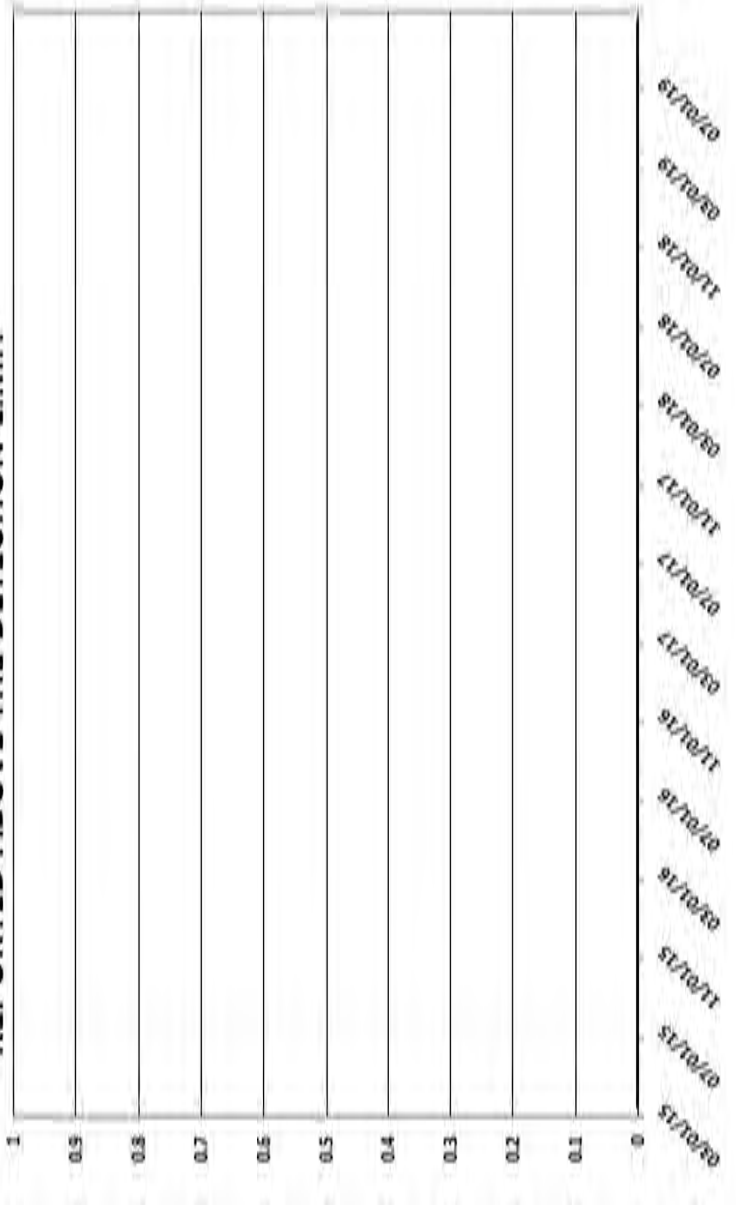
FIGURE 18.18



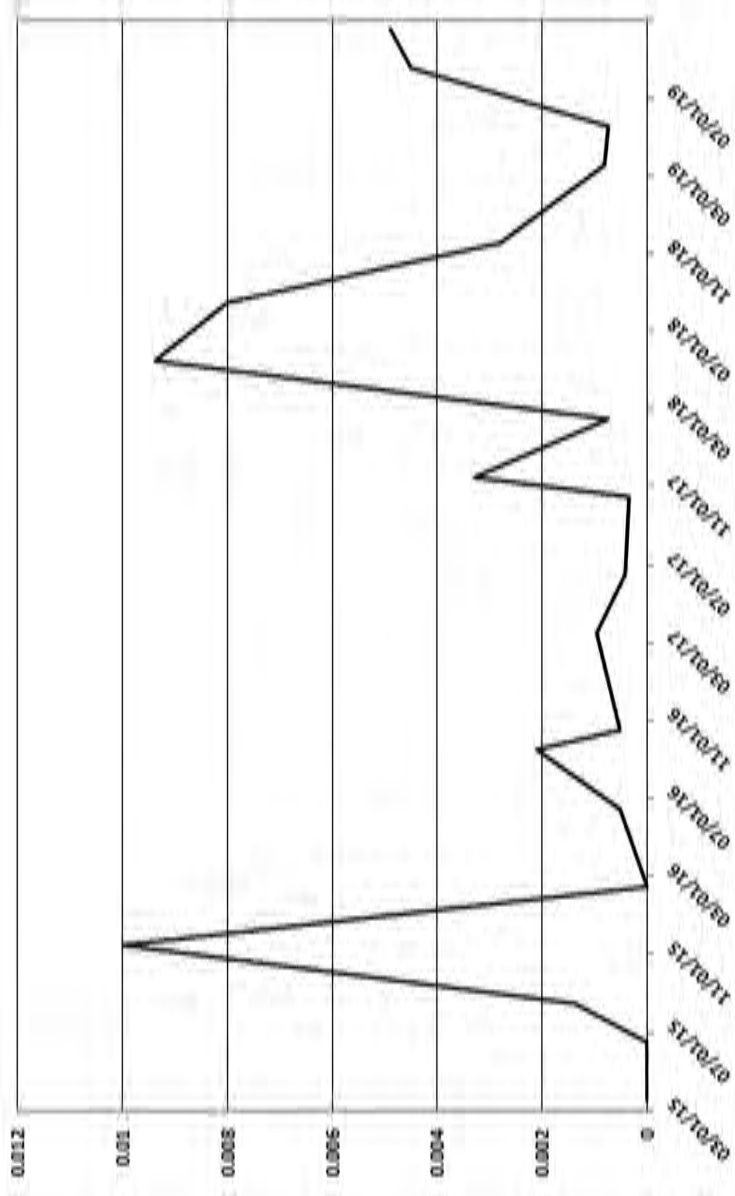
MKTF-28 BENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



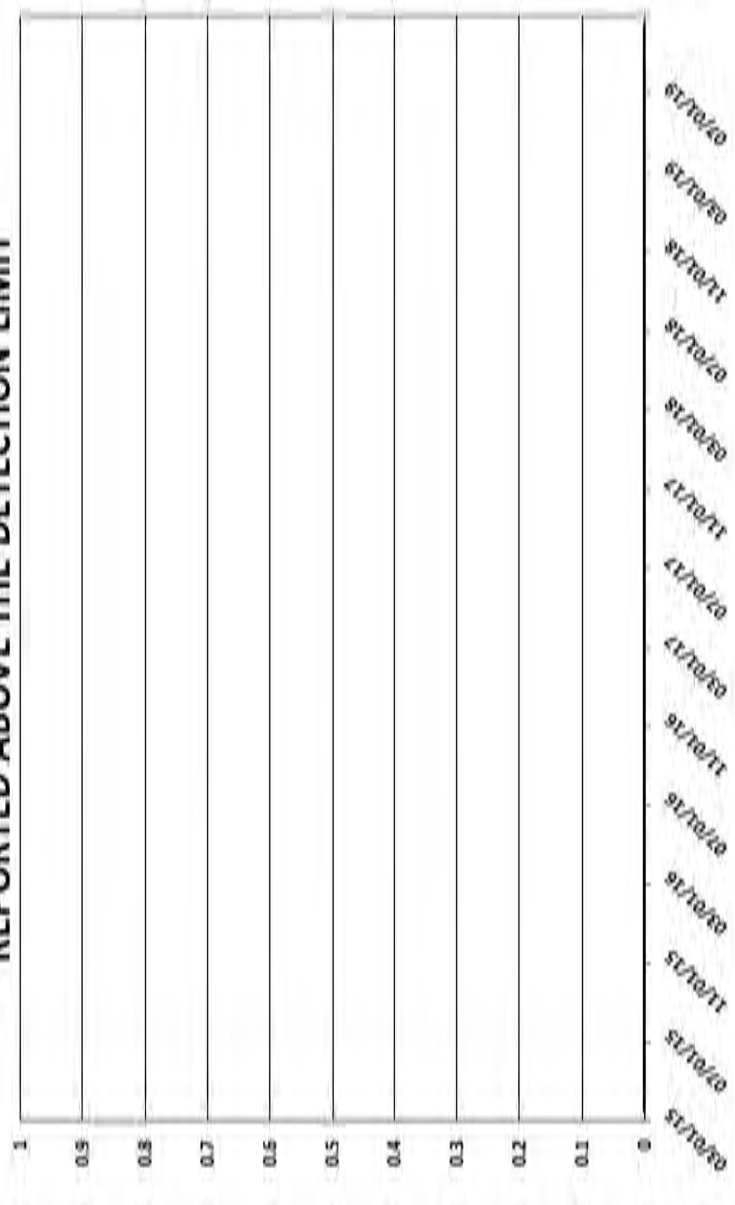
MKTF-28 TOLUENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



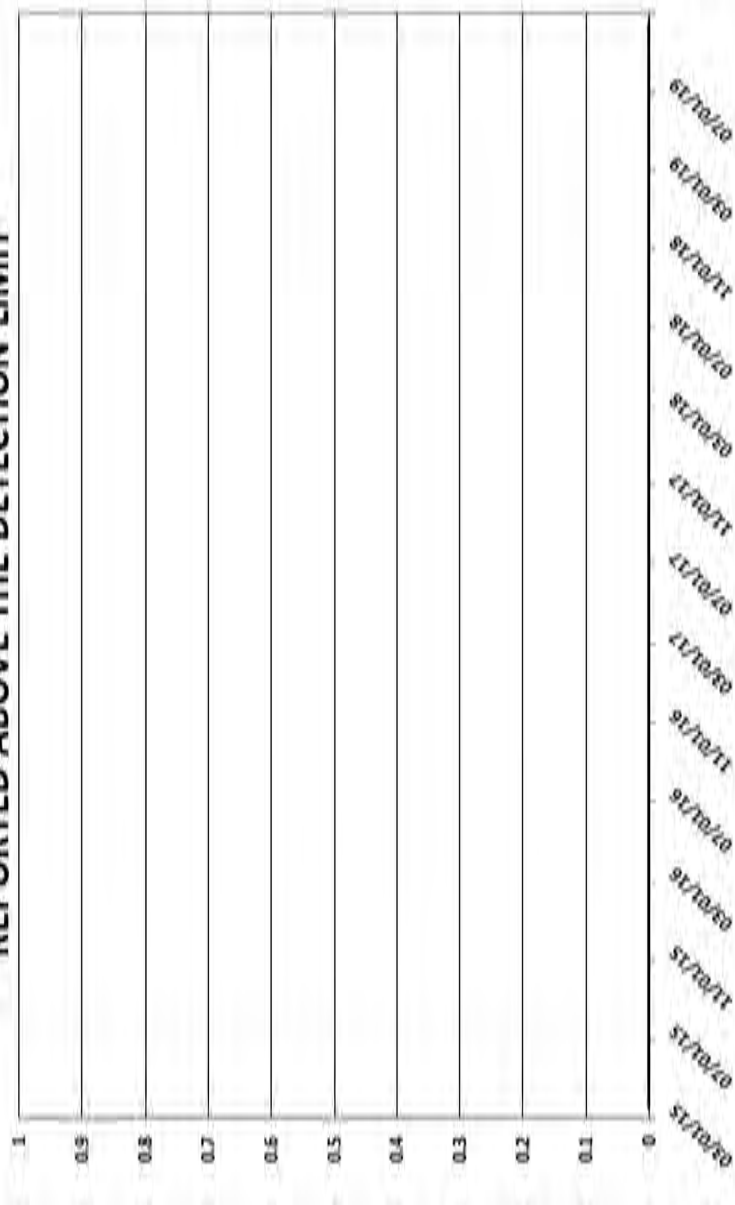
MKTF-28 MTBE (mg/L)



MKTF-28 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-28 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





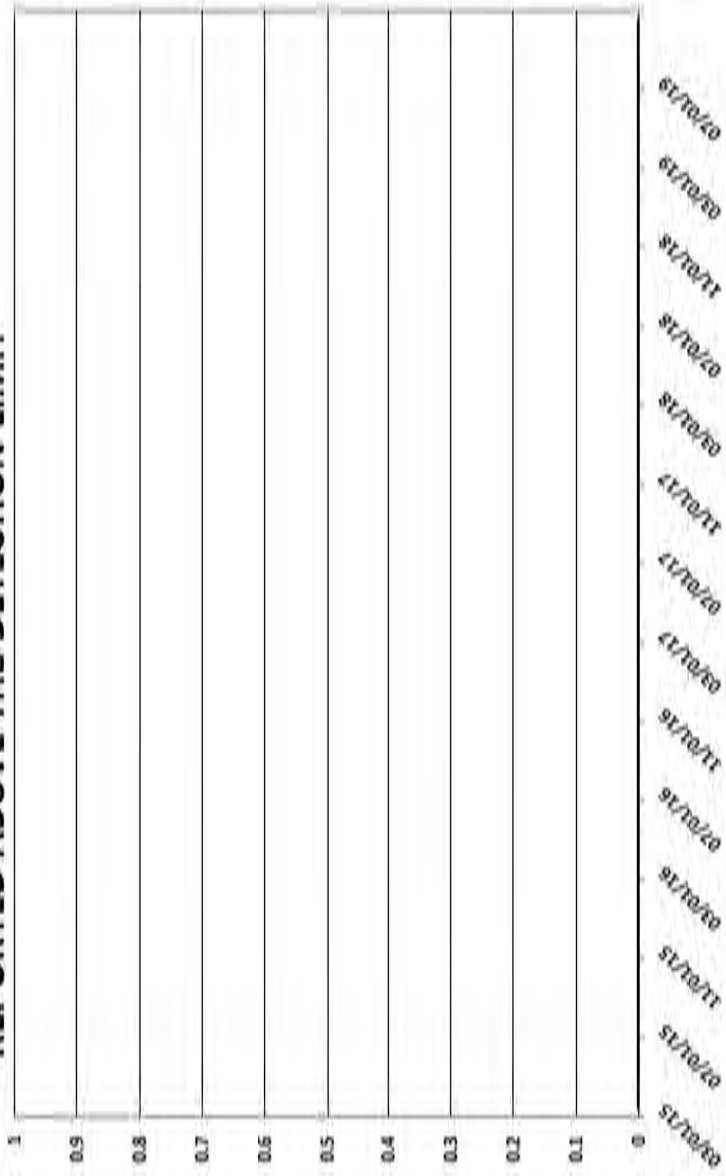
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BTEX & MTBE THROUGH 2019 - WELL MKTF-28		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

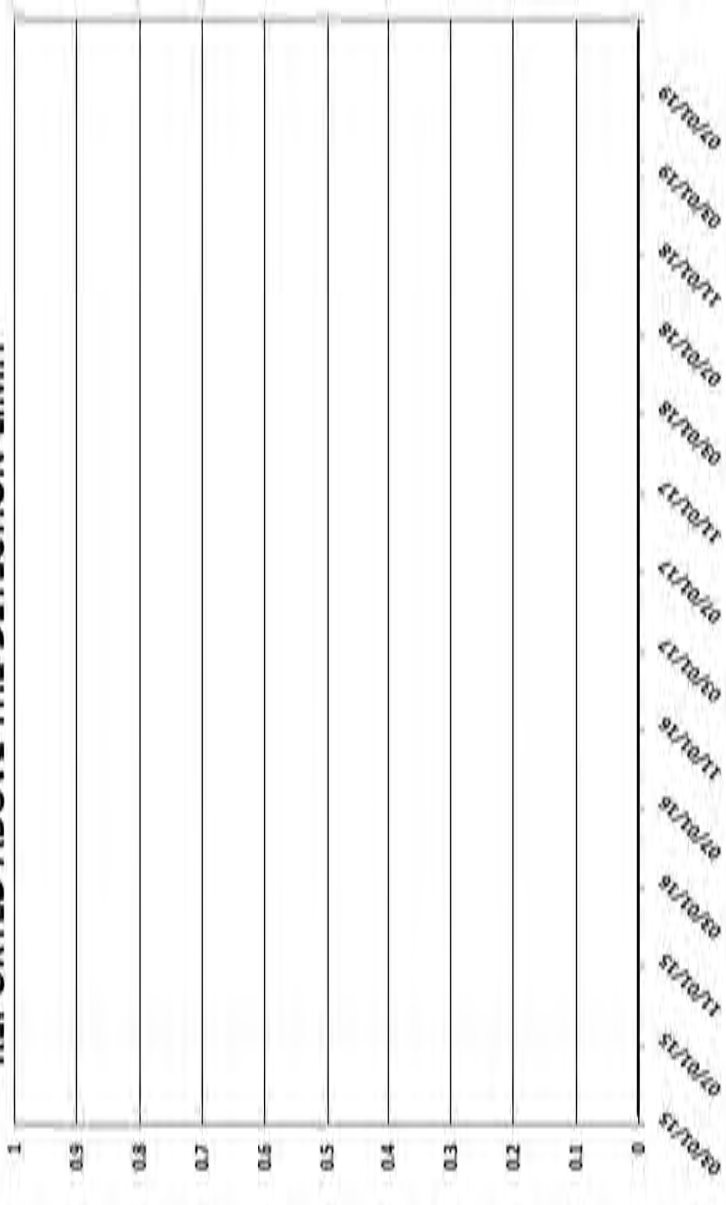
FIGURE 18.19



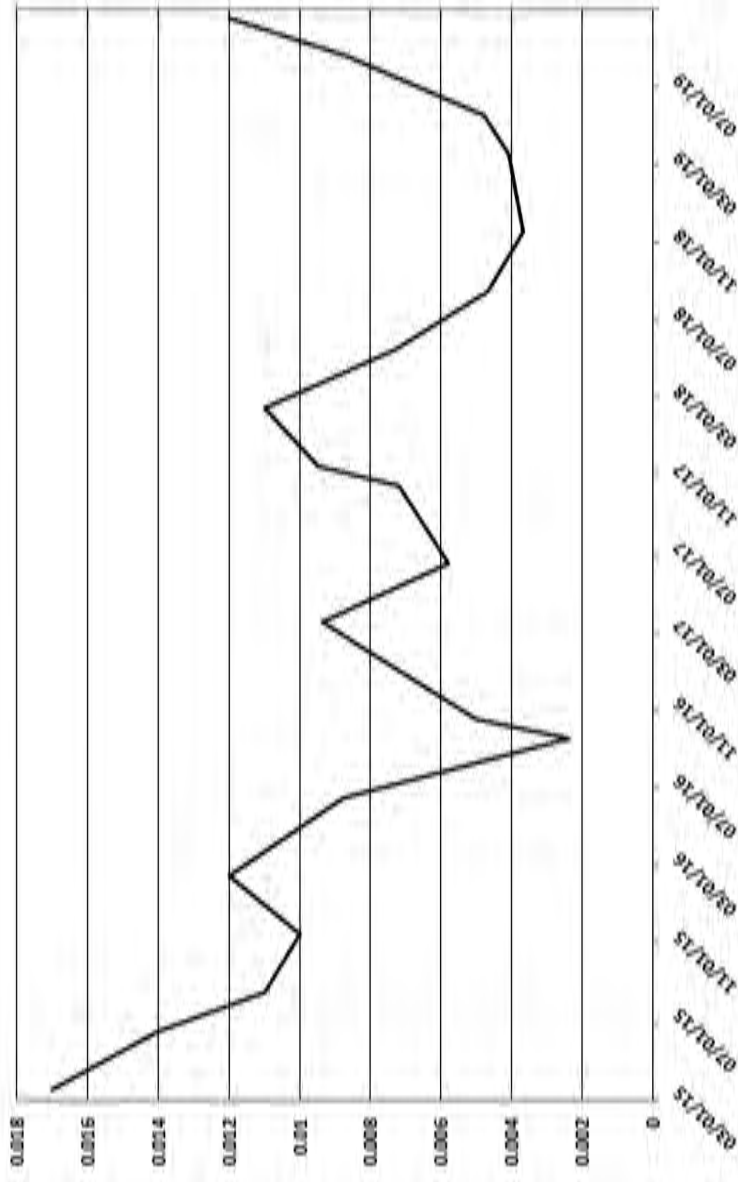
MKTF-29 BENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



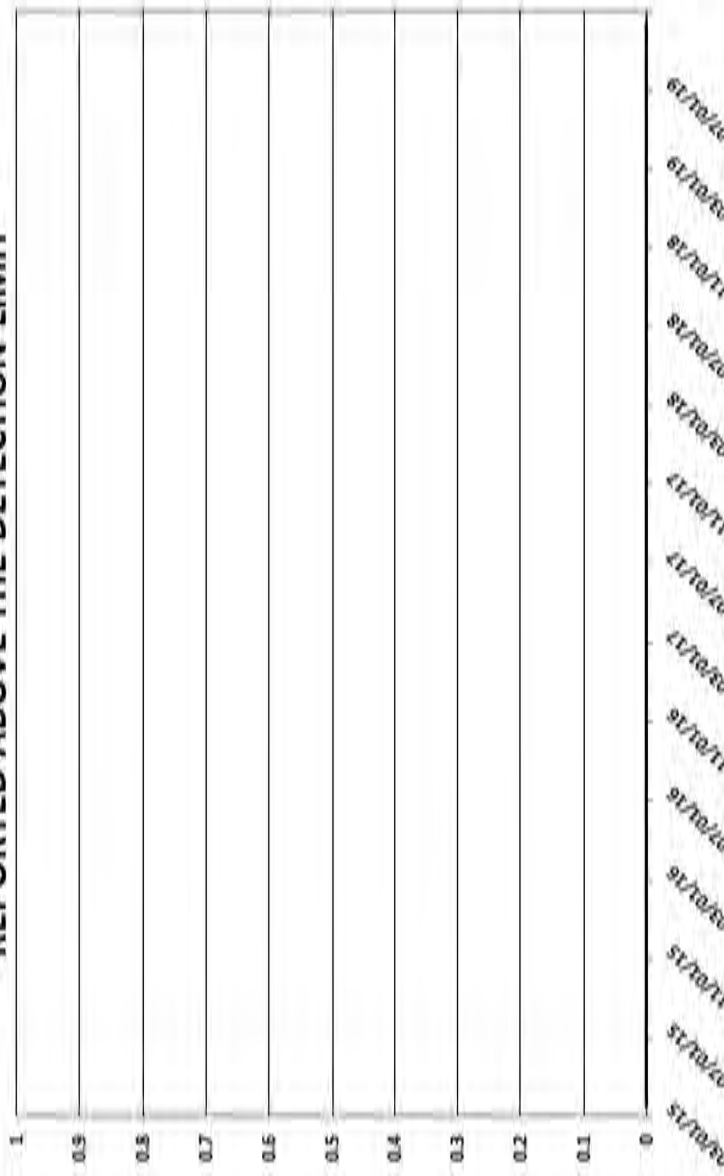
MKTF-29 TOLUENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



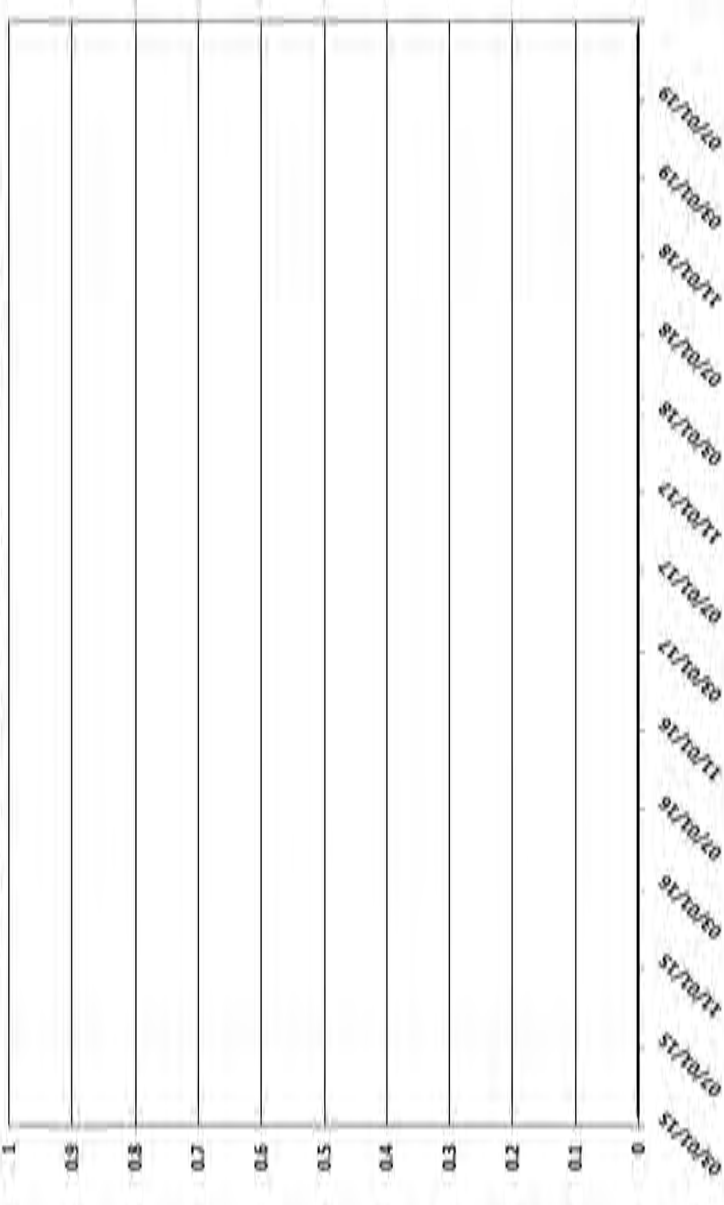
MKTF-29 MTBE (mg/L)



MKTF-29 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-29 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





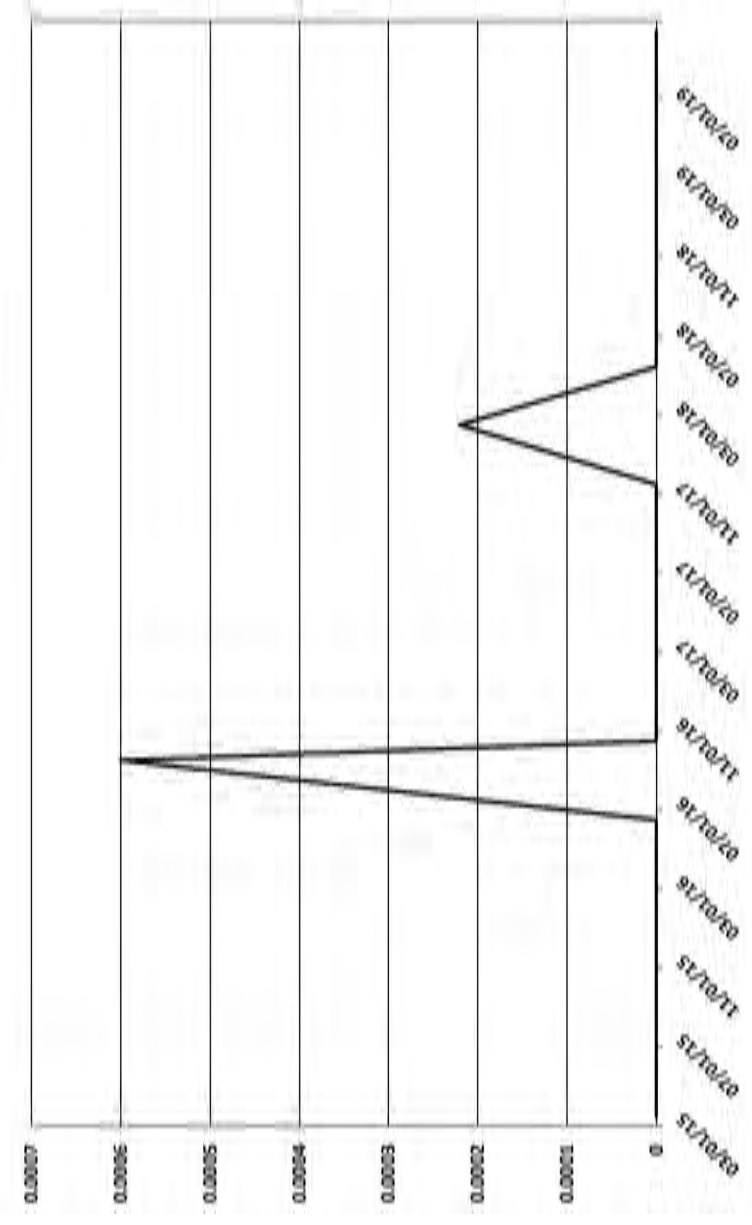
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BTEX & MTBE THROUGH 2019 - WELL MKTF-29		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

FIGURE 18.20



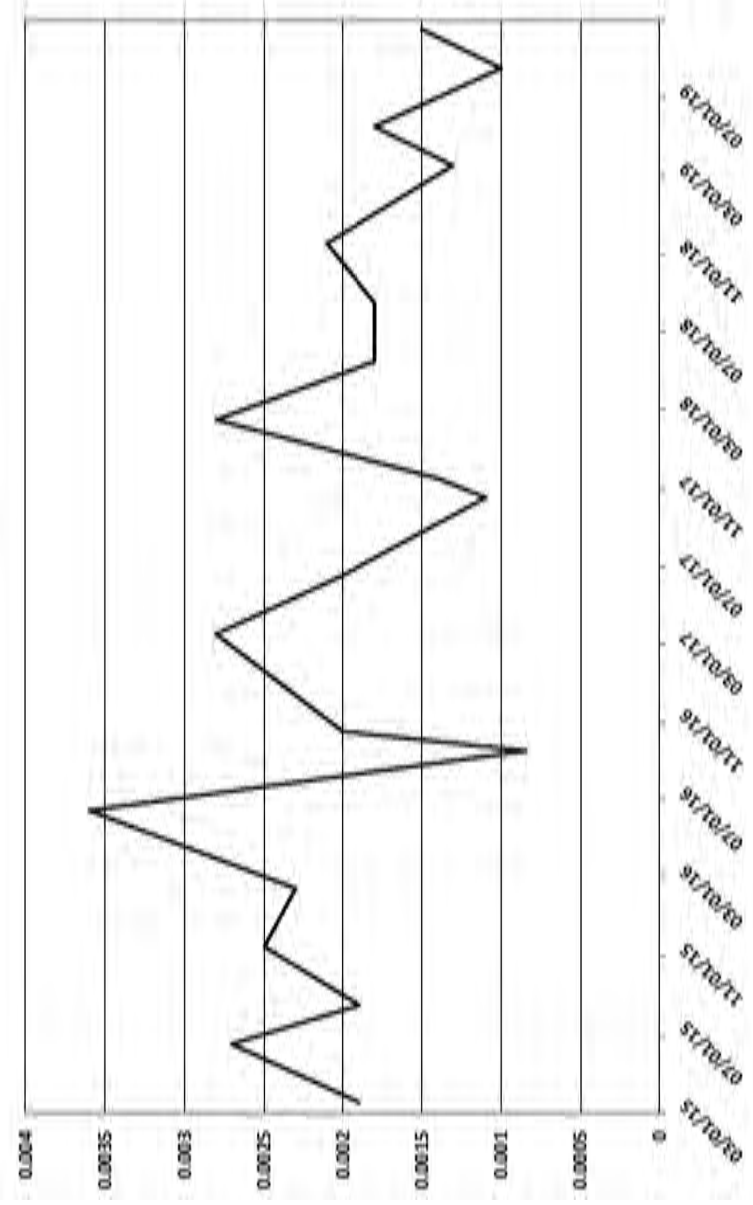
MKTF-30 BENZENE (mg/L)



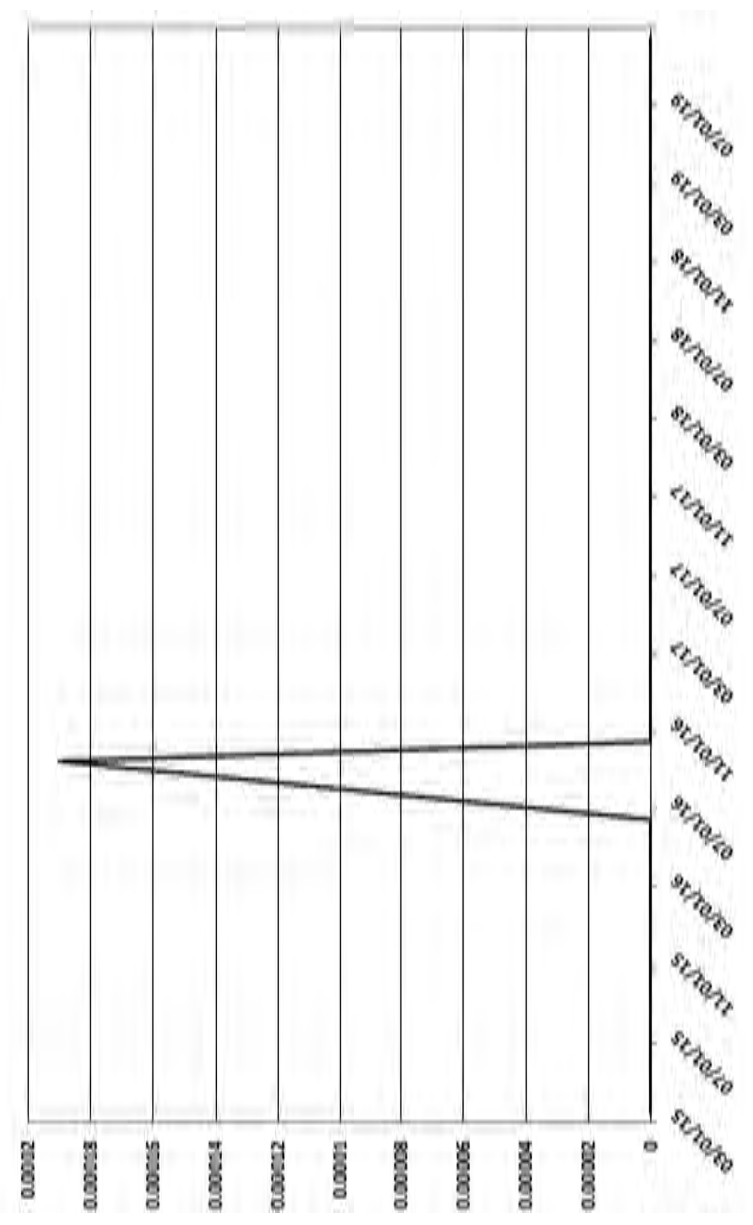
MKTF-30 TOLUENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



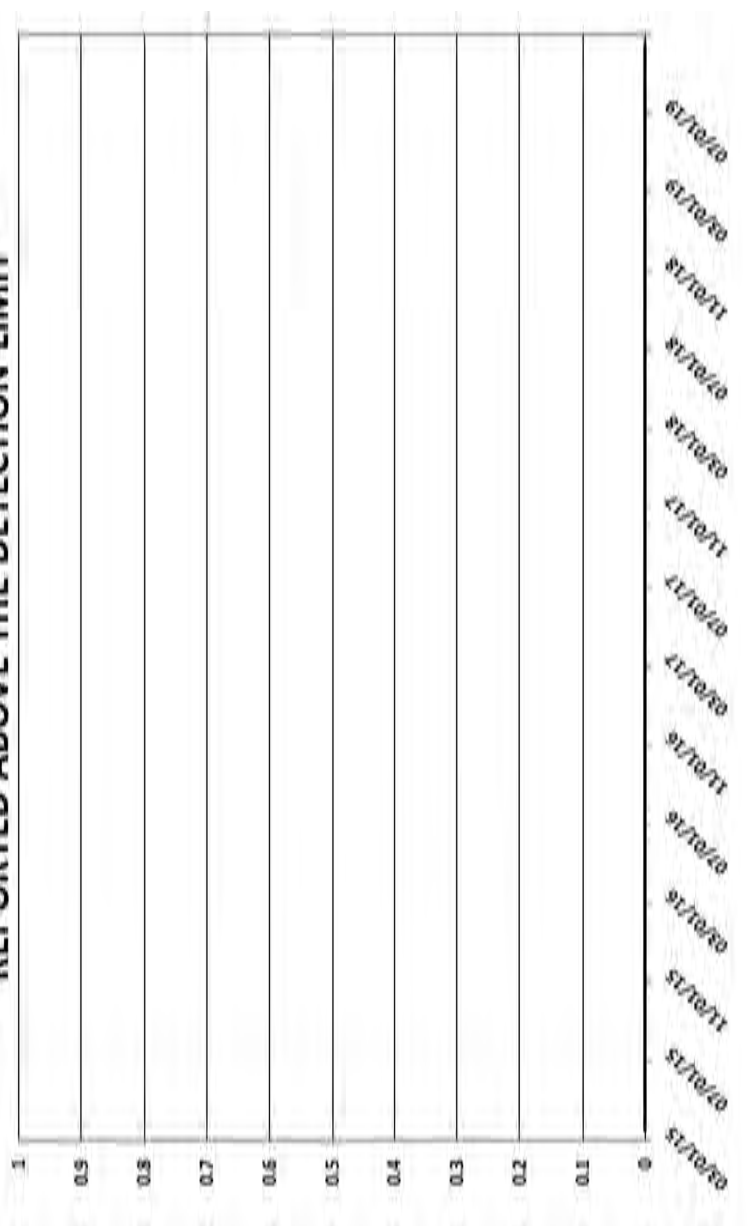
MKTF-30 MTBE (mg/L)



MKTF-30 ETHYLBENZENE (mg/L)



MKTF-30 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



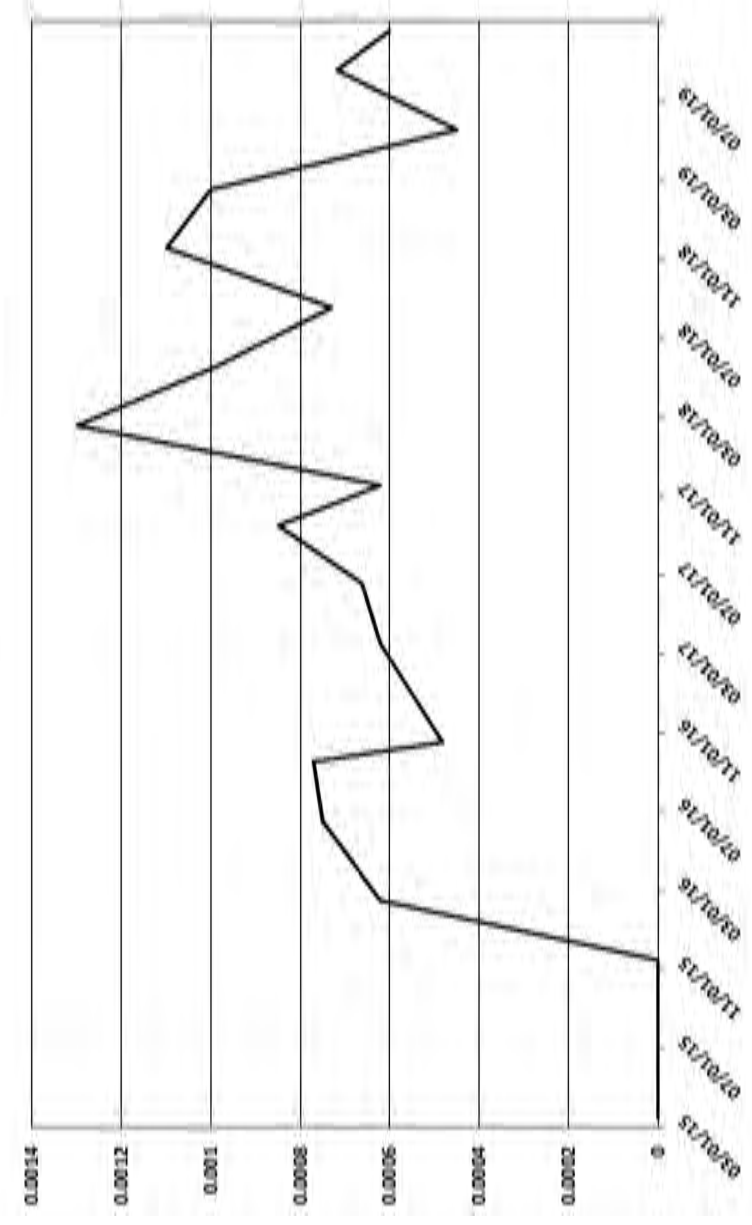


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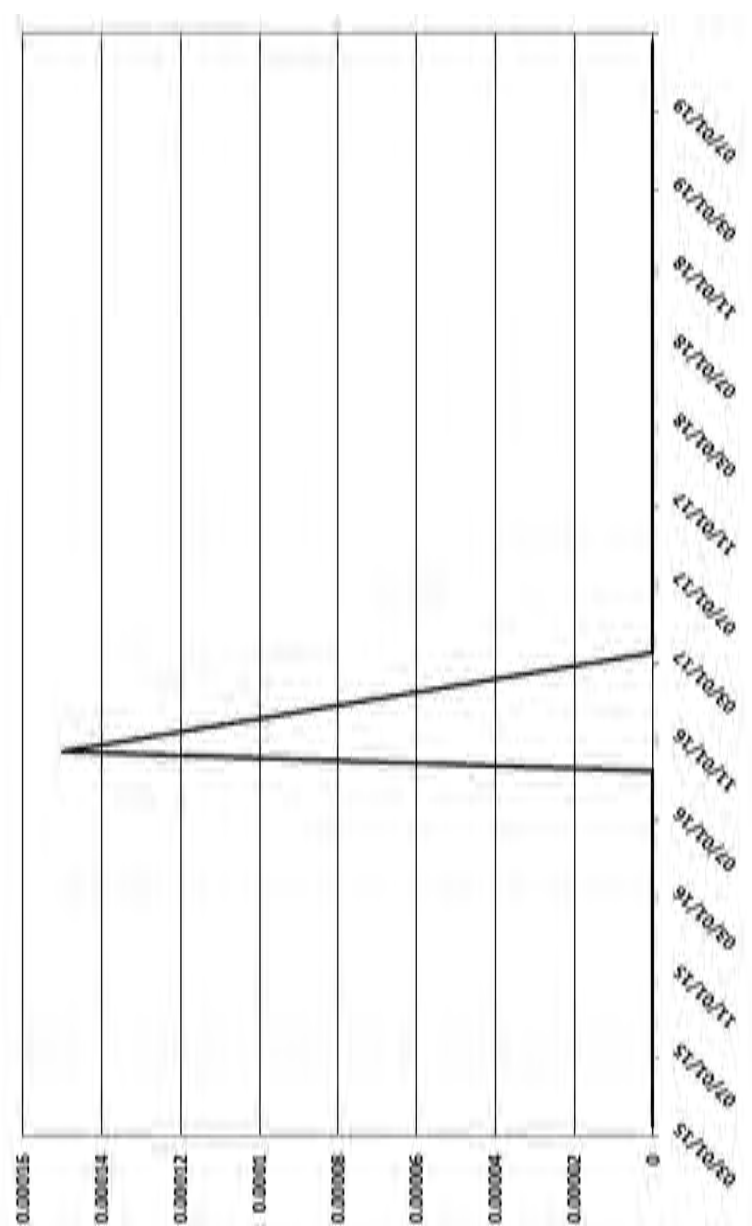
FIGURE 18.21		
BTEx & MTBE THROUGH 2019 - WELL MKTF-30		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34



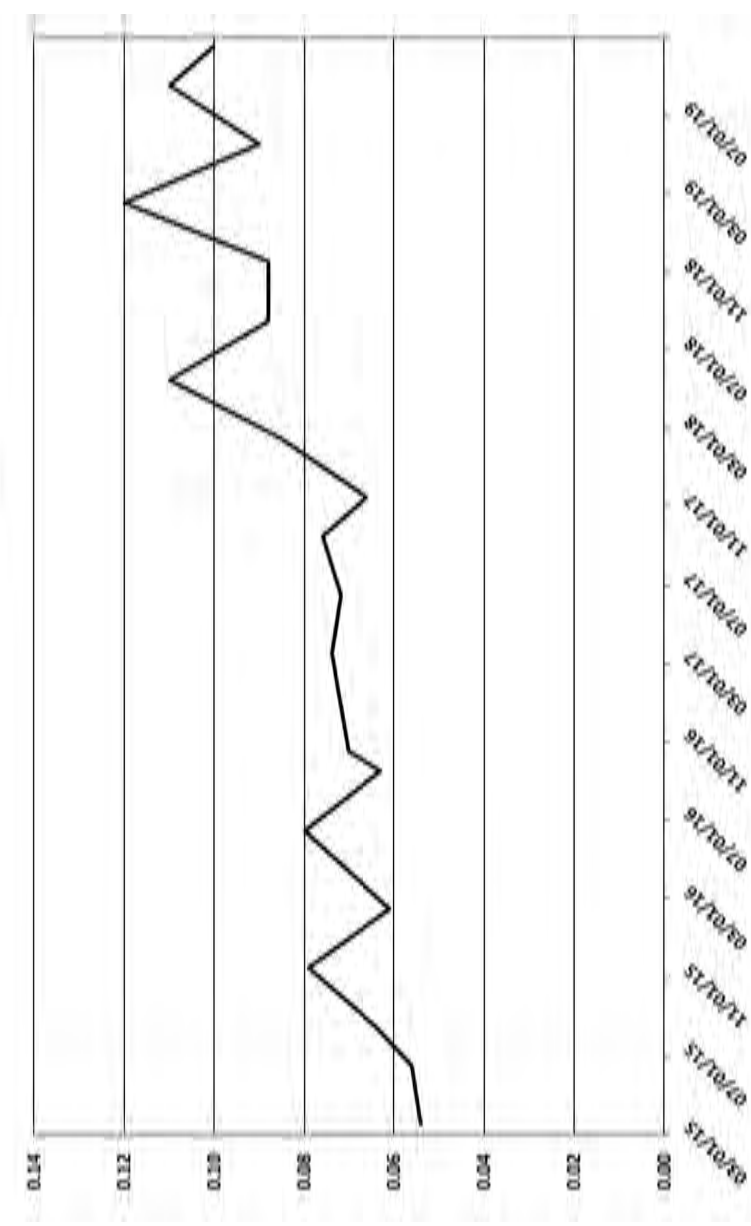
MKTF-31 BENZENE (mg/L)



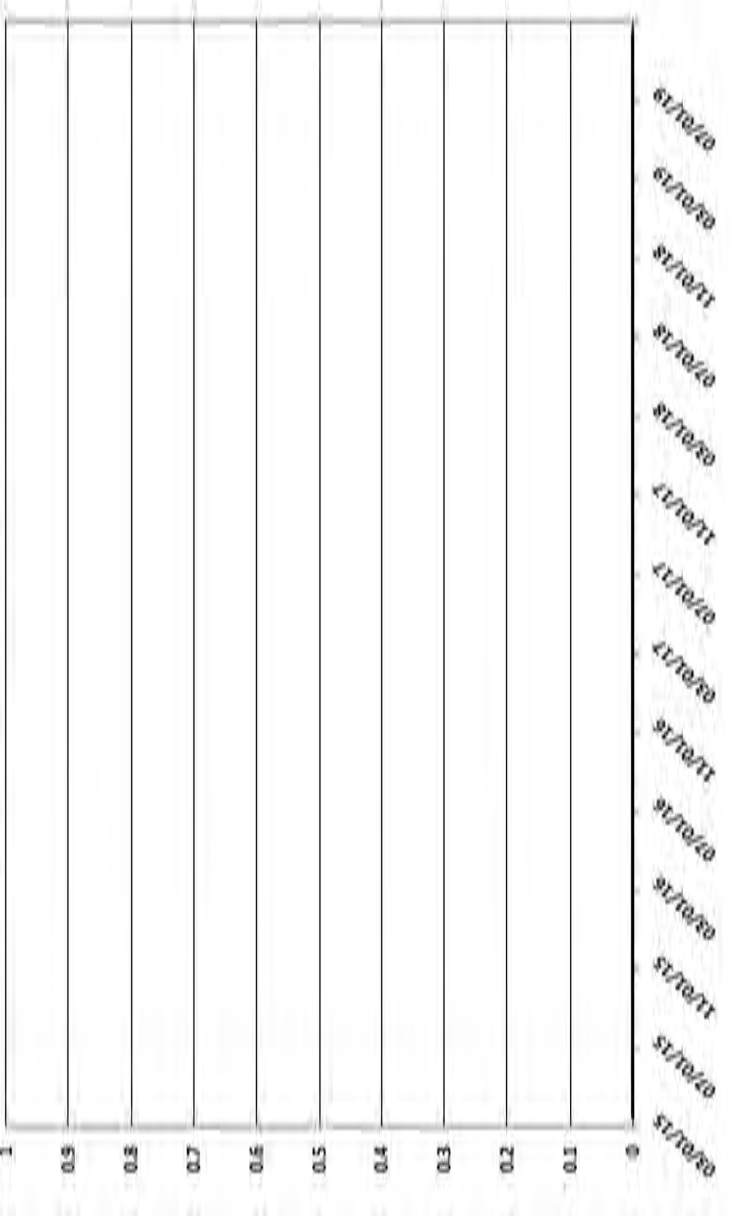
MKTF-31 TOLUENE (mg/L)



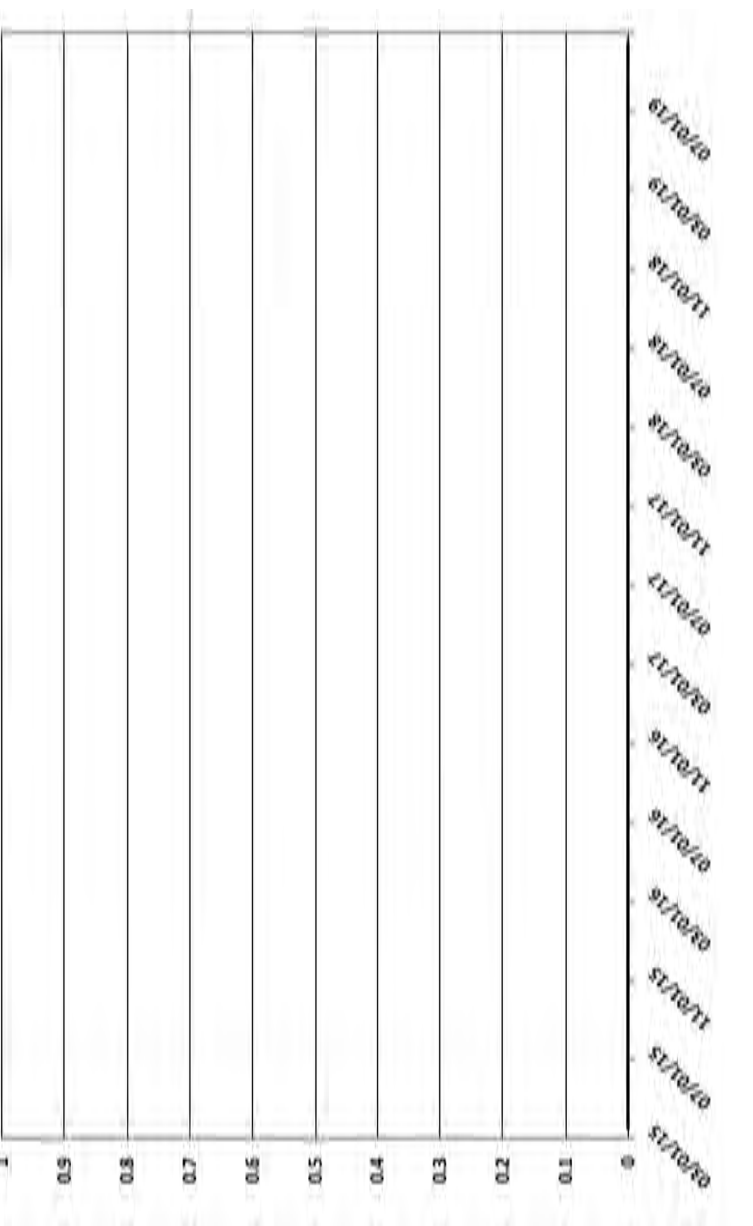
MKTF-31 MTBE (mg/L)



MKTF-31 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



MKTF-31 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





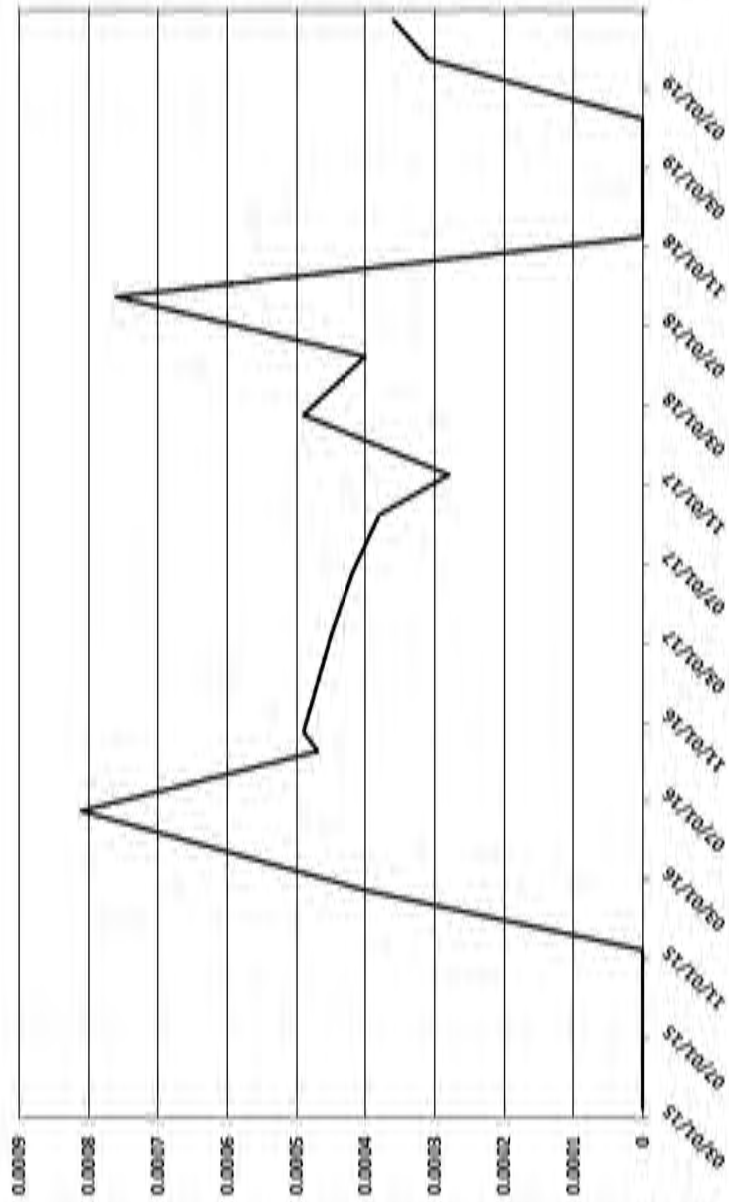
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BTEX & MTBE THROUGH 2019 - WELL MKTF-31		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34

FIGURE 18.22



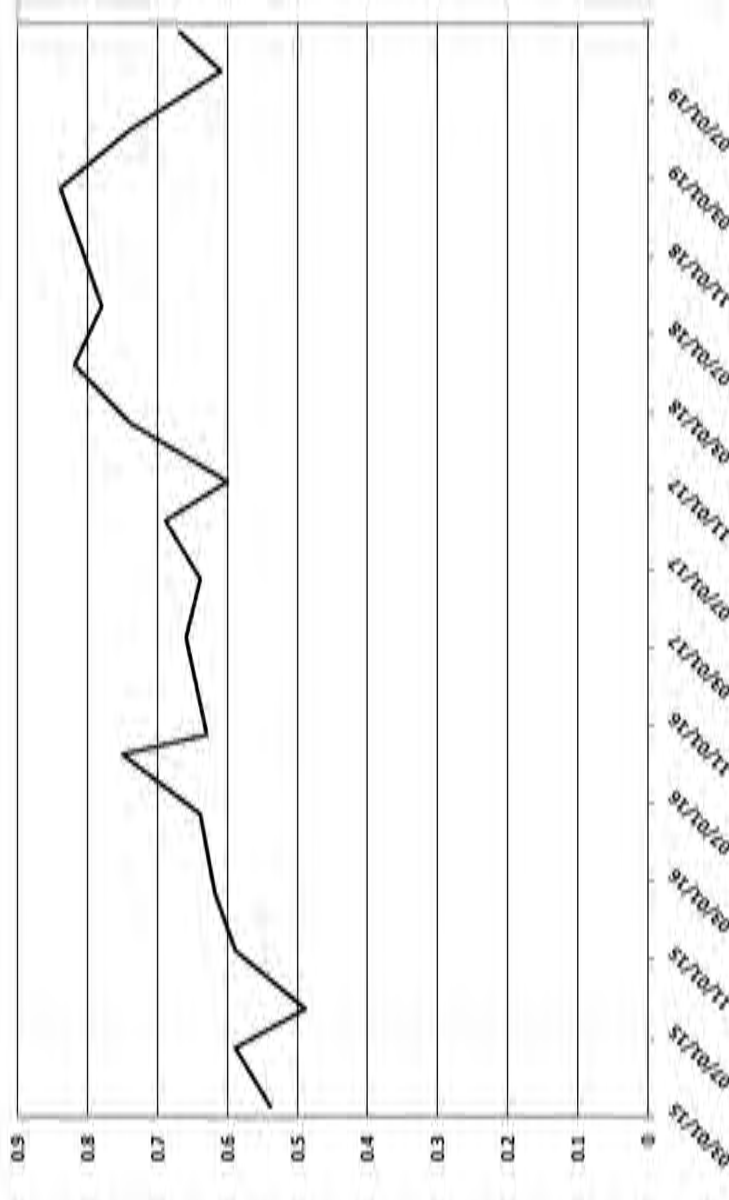
MKTF-32 BENZENE (mg/L)



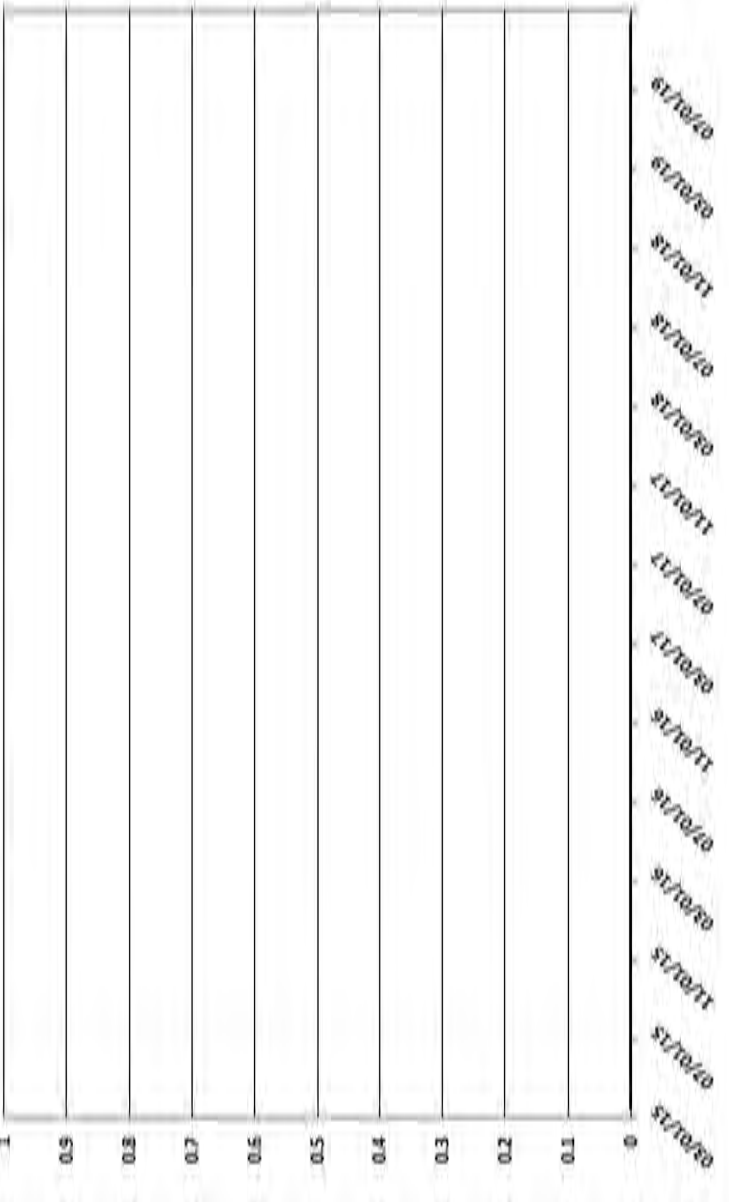
MKTF-32 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



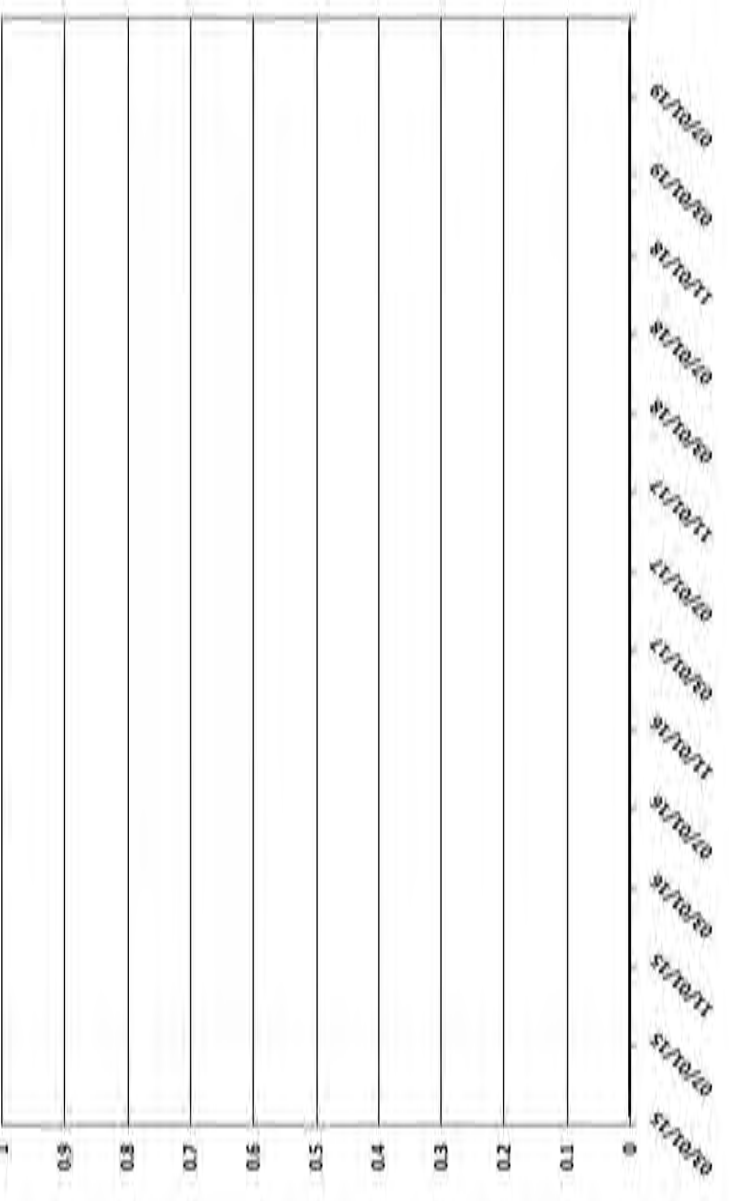
MKTF-32 MTBE (mg/L)



MKTF-32 ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



MKTF-32 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





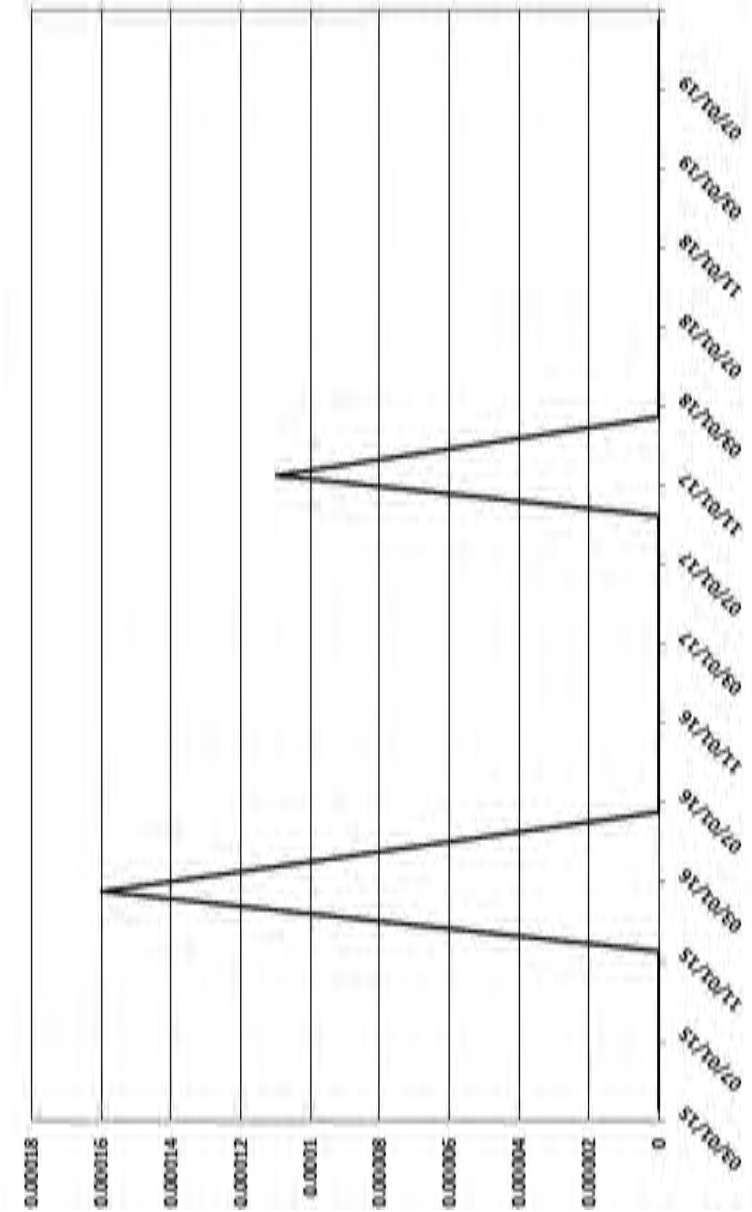
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BTEX & MTBE THROUGH 2019 - WELL MKTF-32		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34

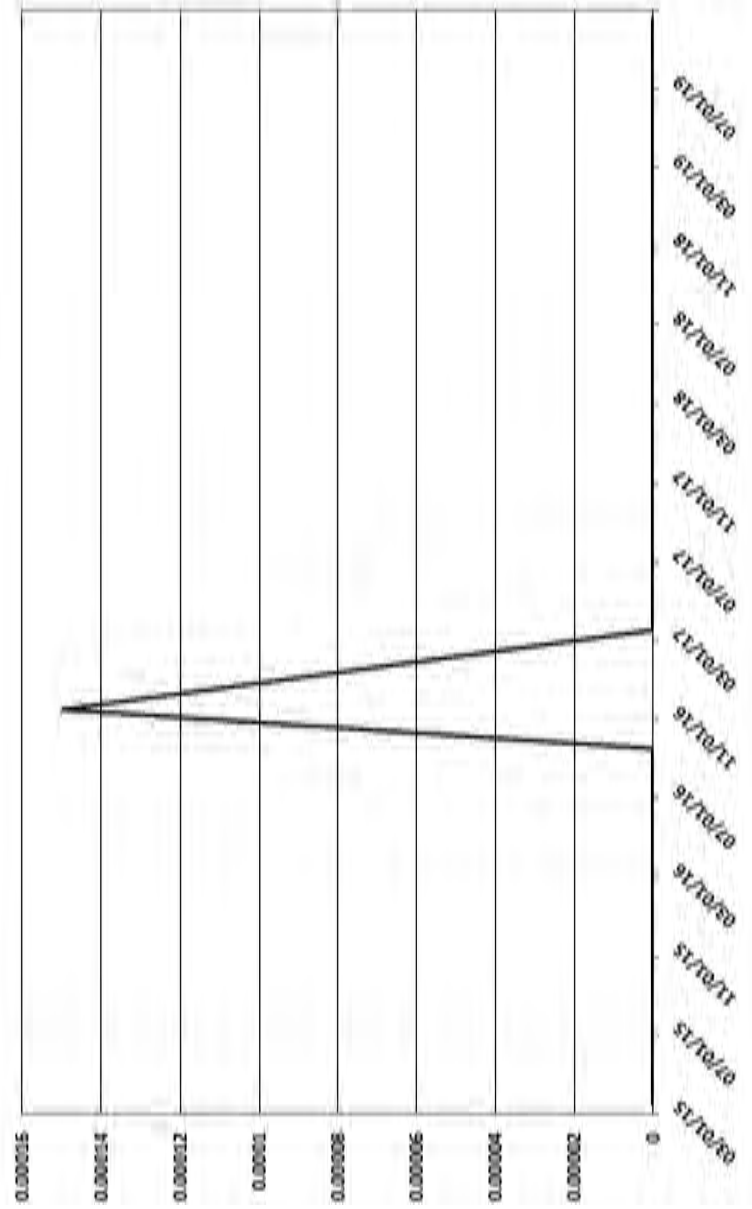
FIGURE 18.23



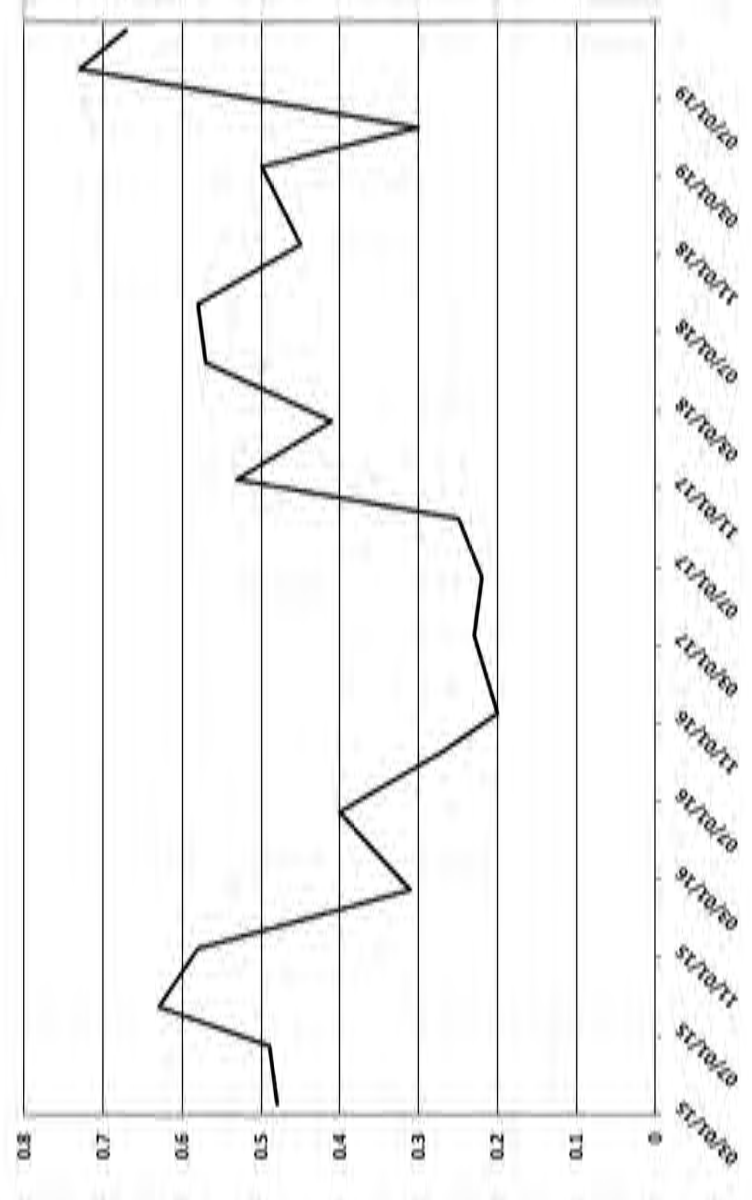
MKTF-33 BENZENE (mg/L)



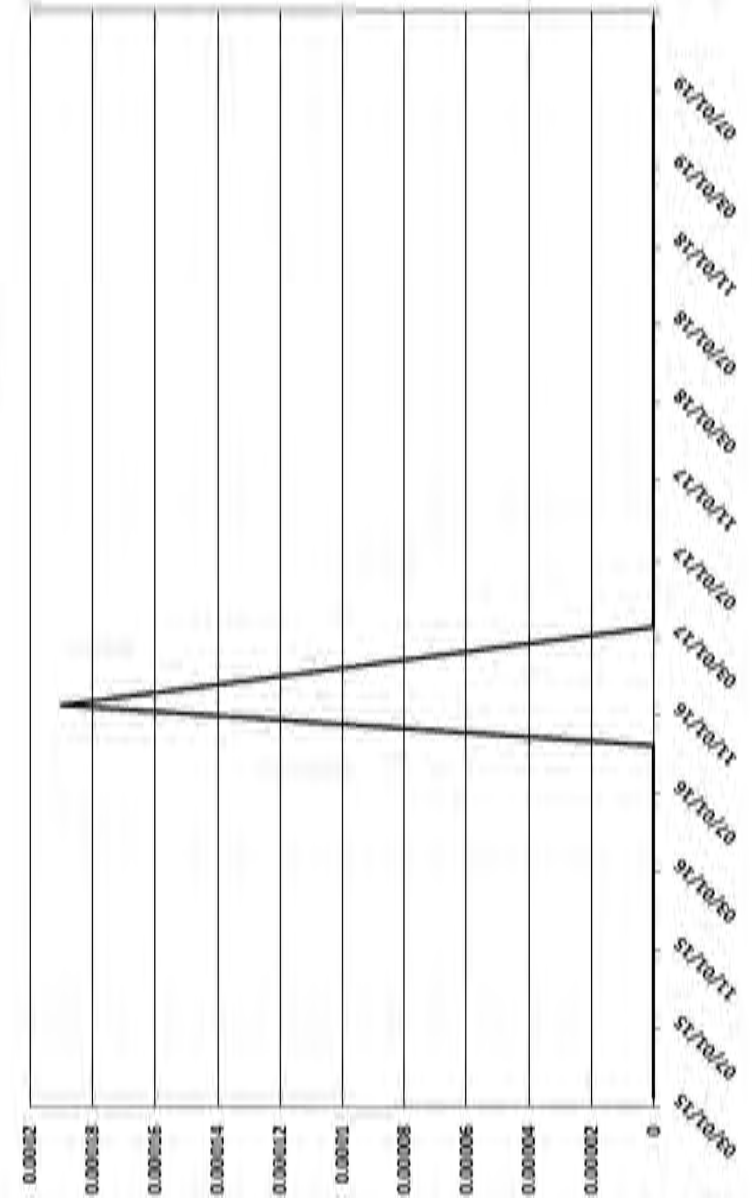
MKTF-33 TOLUENE (mg/L)



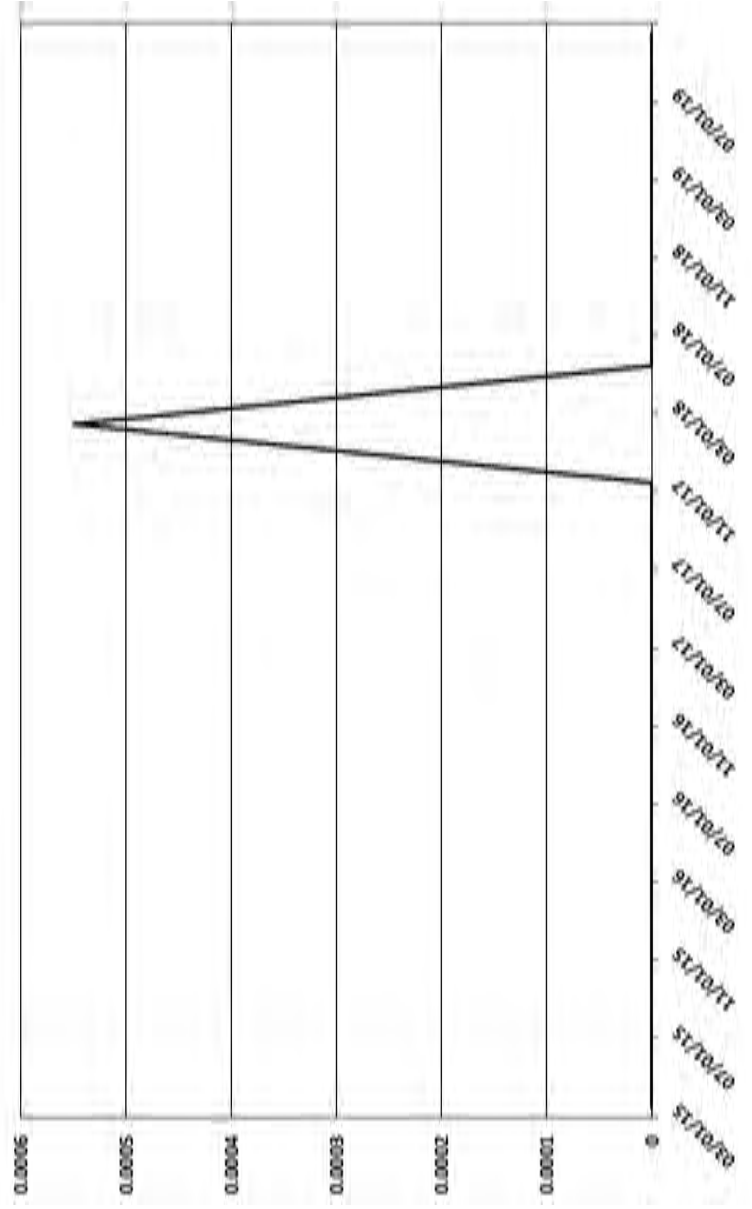
MKTF-33 MTBE (mg/L)



MKTF-33 ETHYLBENZENE (mg/L)



MKTF-33 TOTAL XYLENES (mg/L)



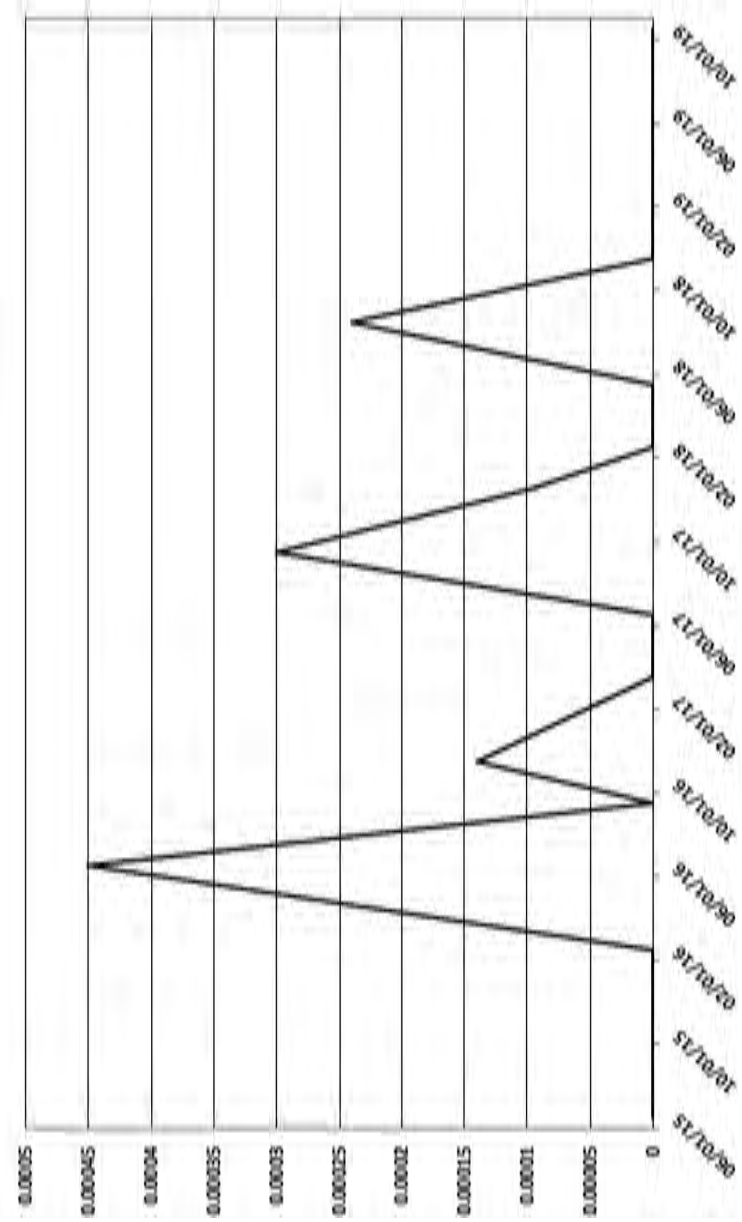


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FIGURE 18.24		
BTEx & MTBE THROUGH 2019 - WELL MKTF-33		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.21-18.34



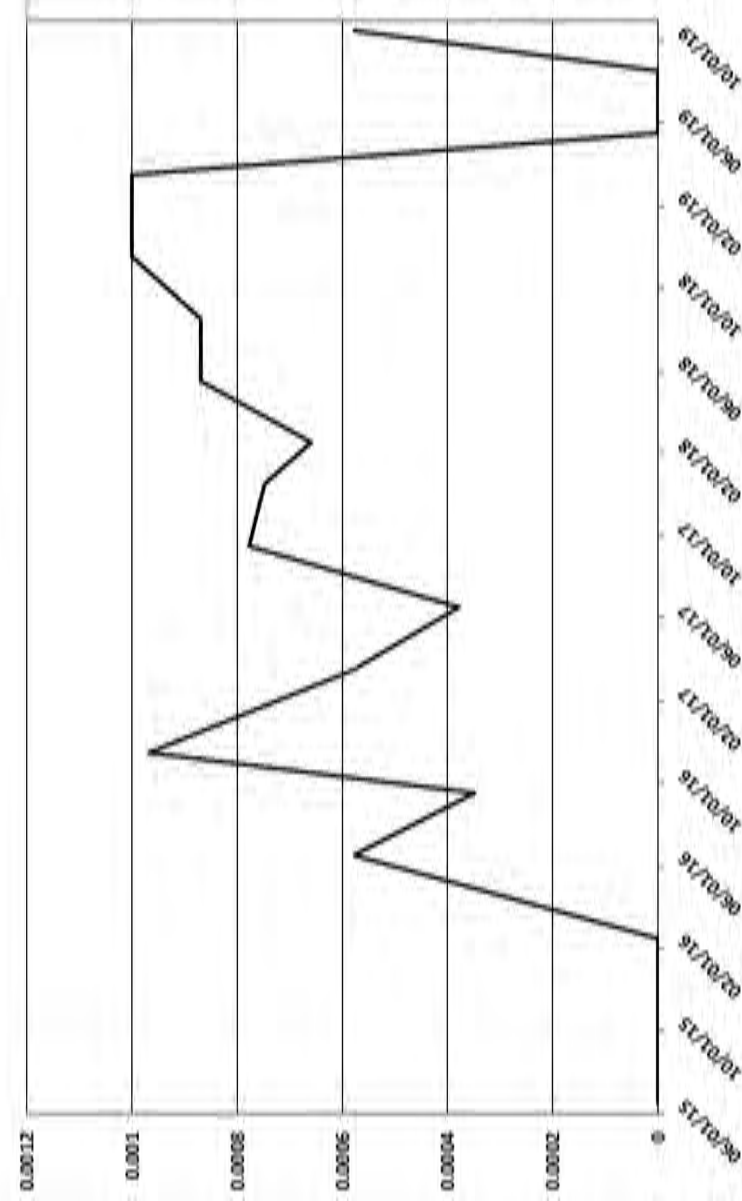
MKTF-34 BENZENE (mg/L)



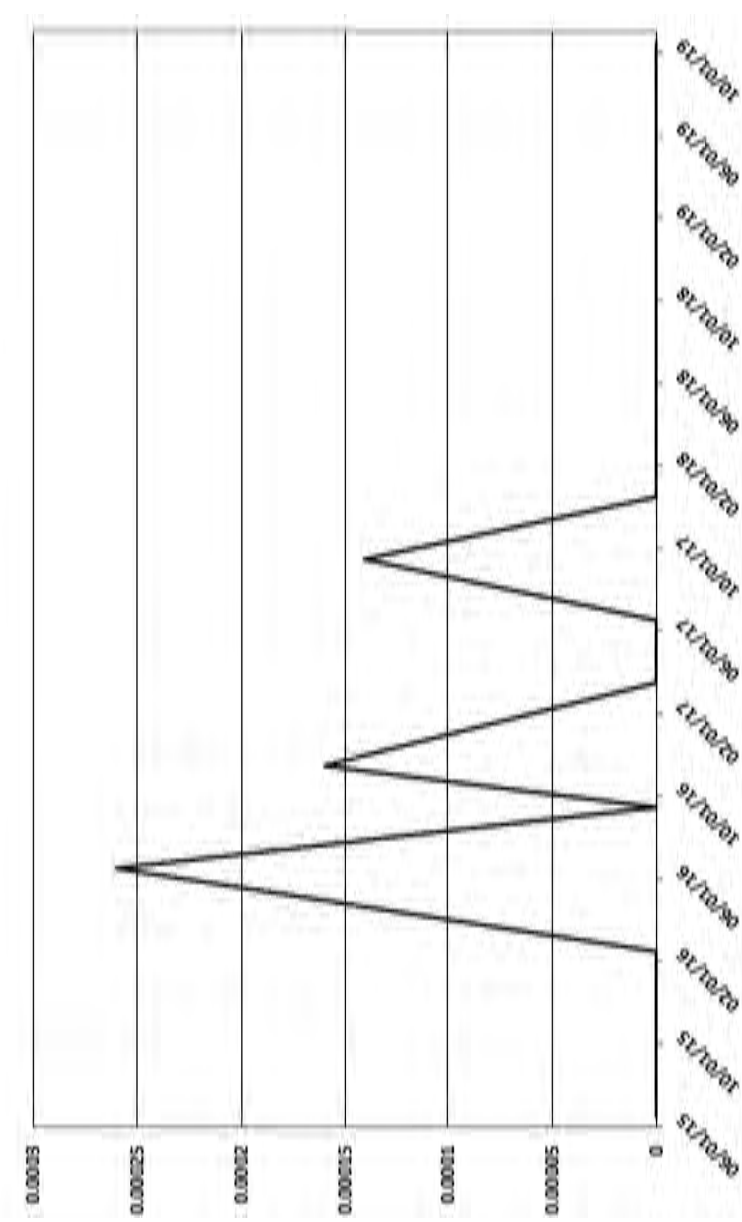
MKTF-34 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



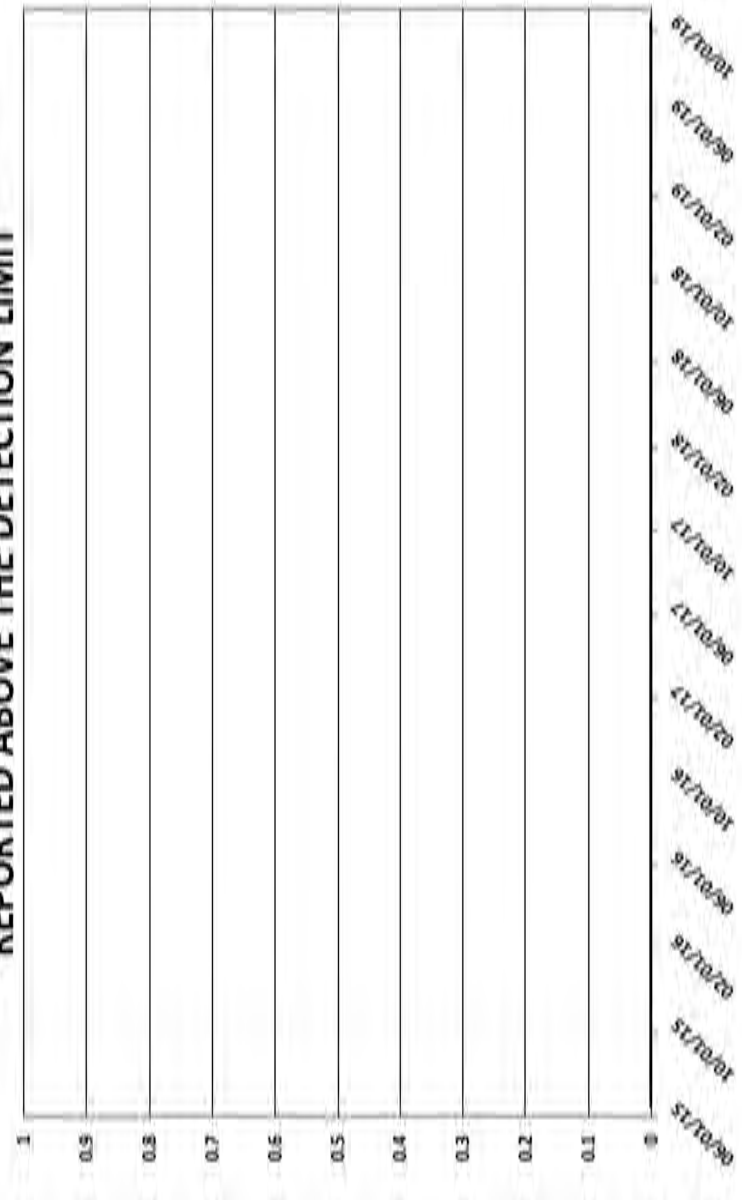
MKTF-34 MTBE (mg/L)



MKTF-34 ETHYLBENZENE (mg/L)



MKTF-34 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





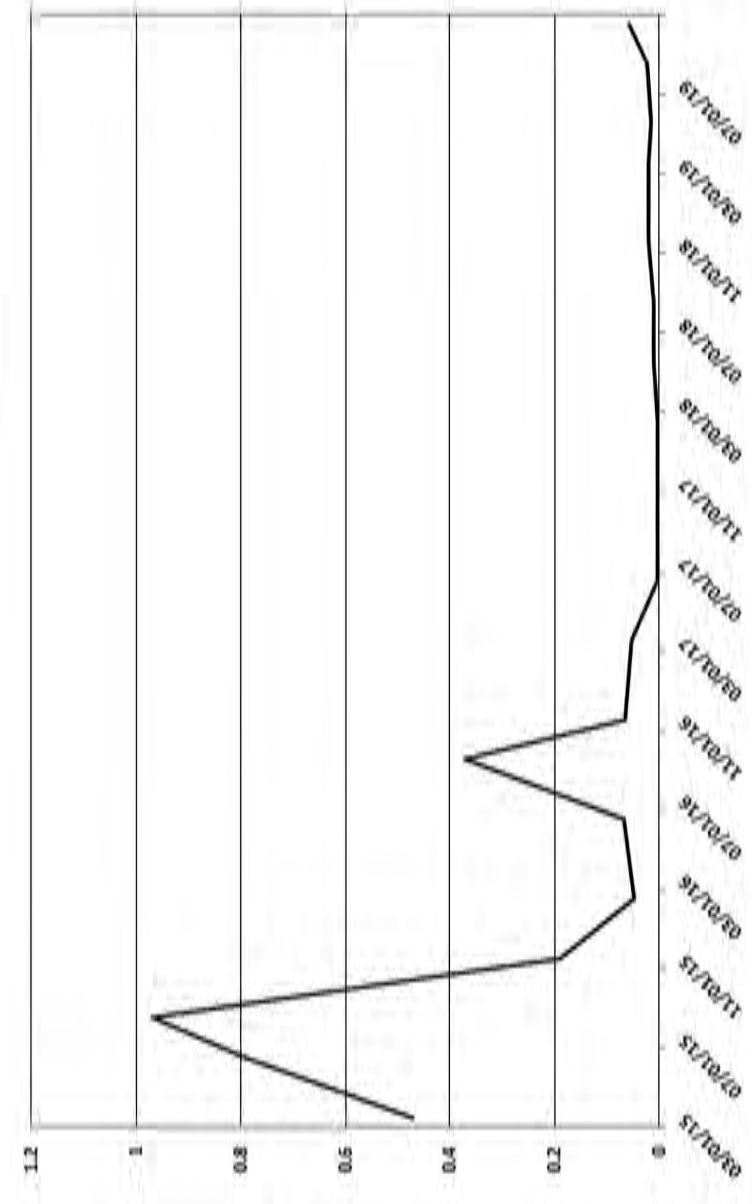
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FIGURE 18.25

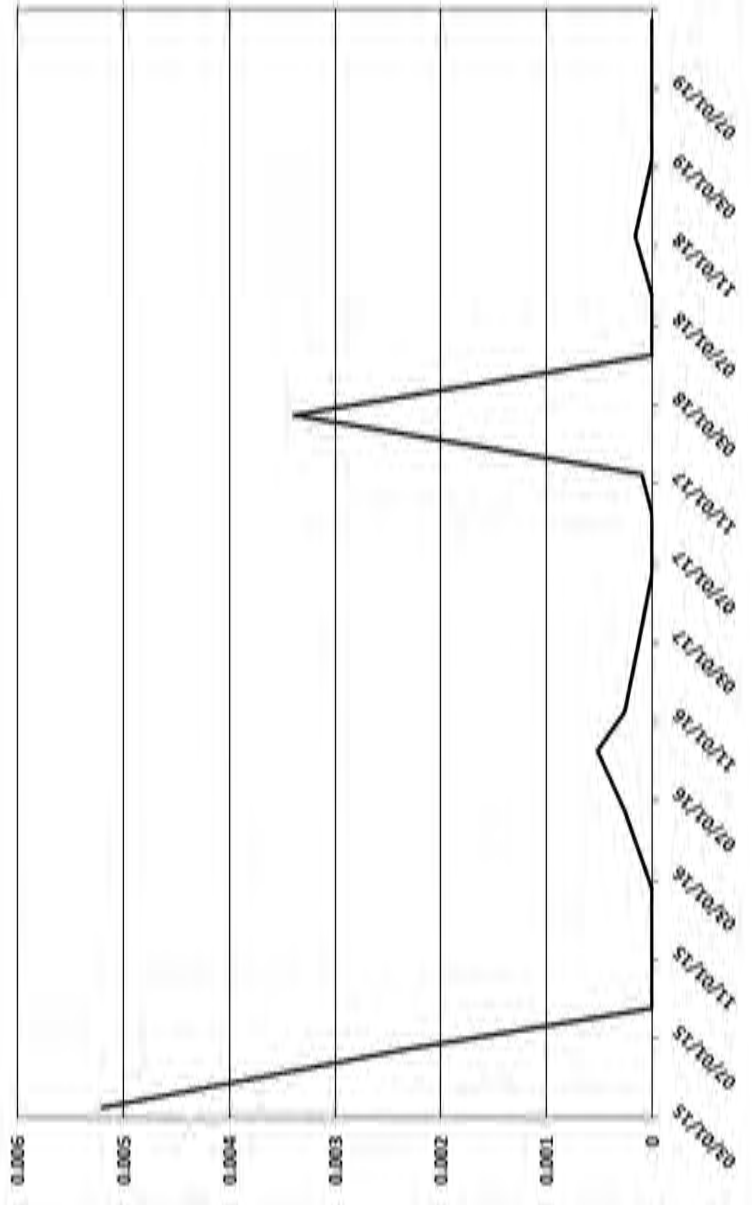
BTEX & MTBE THROUGH 2019 - WELL MKTF-34	
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO	
Drawn By: REP	Checked By: BM
Scale: NONE	Date: 9/15/2020
File: 697-GWMON-2019-FIGS-18.21-18.34	



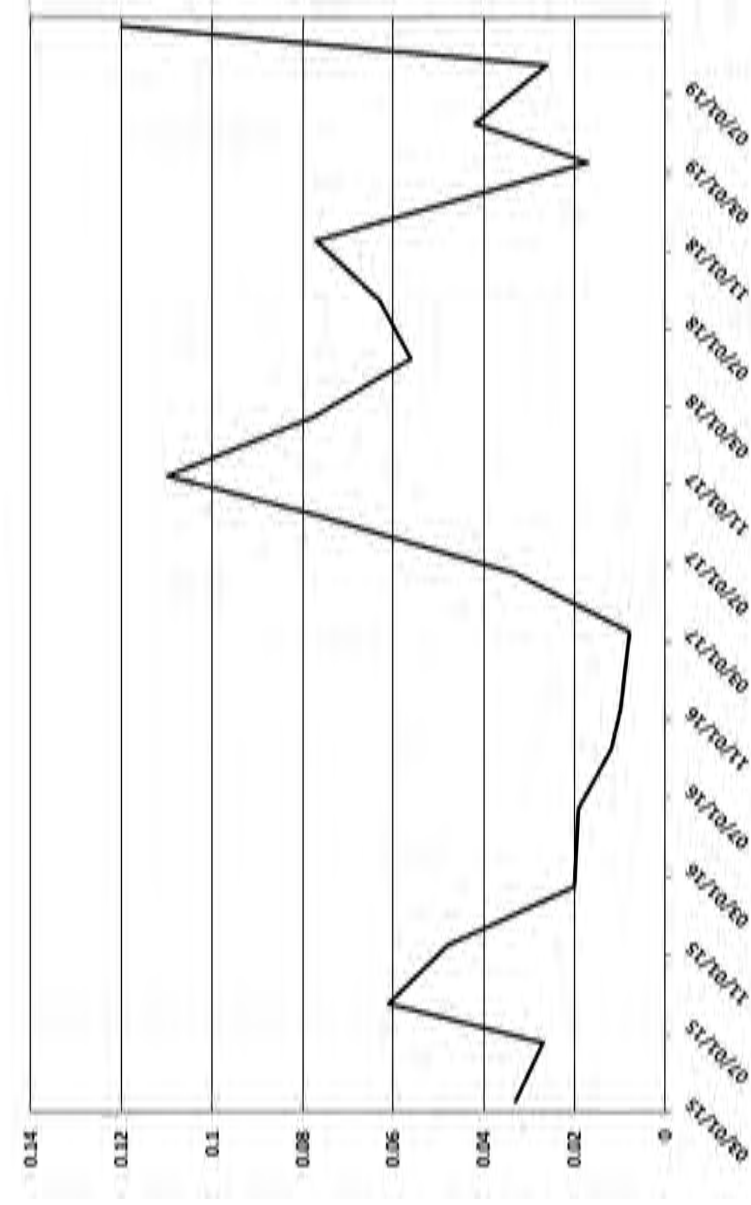
MKTF-35 BENZENE (mg/L)



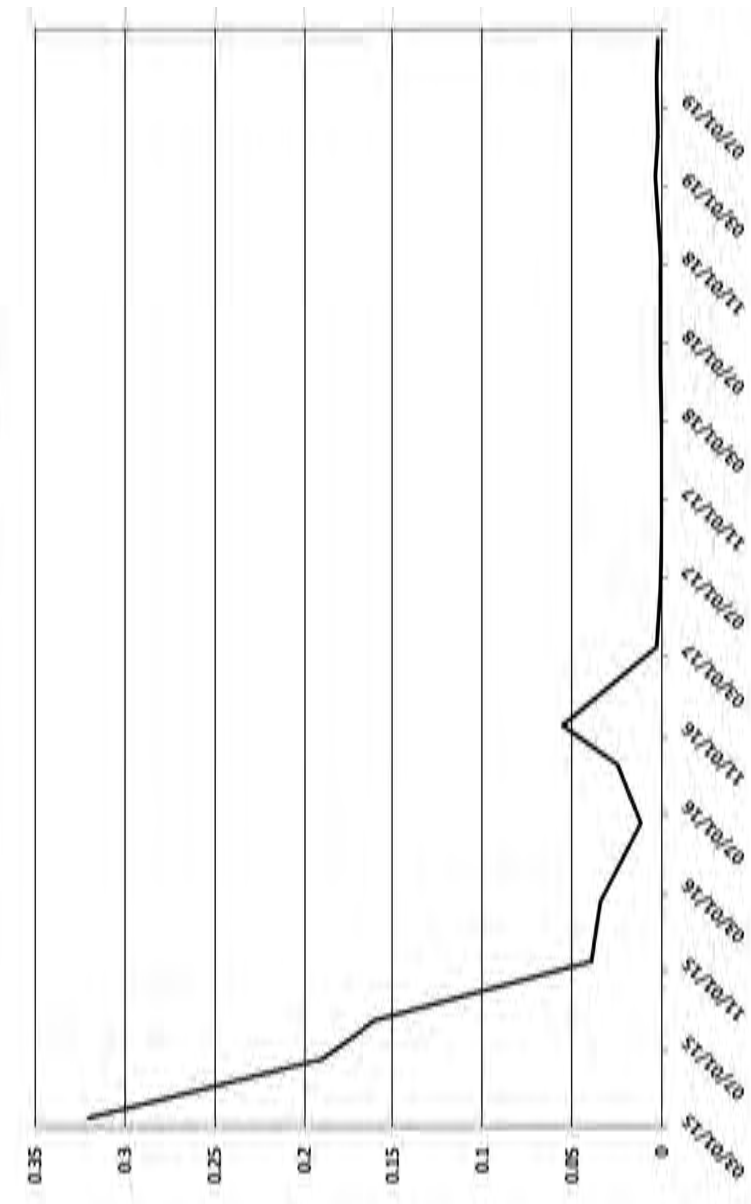
MKTF-35 TOLUENE (mg/L)



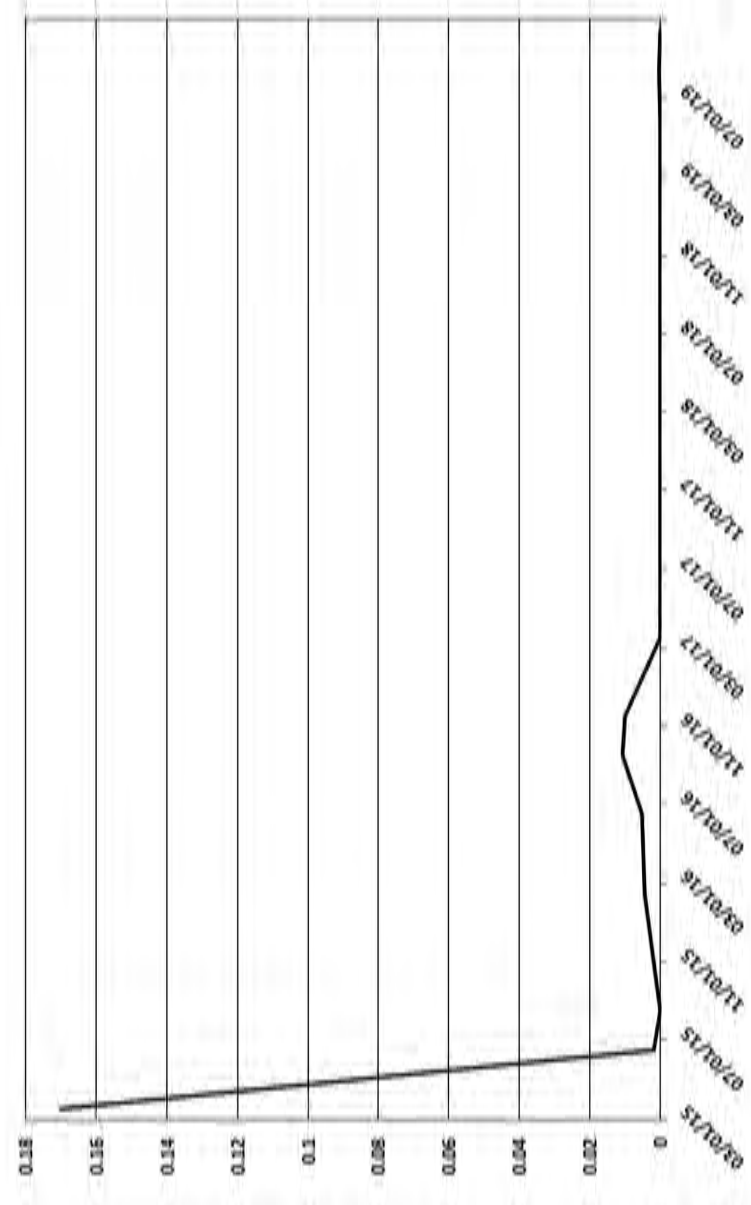
MKTF-35 MTBE (mg/L)



MKTF-35 ETHYLBENZENE (mg/L)



MKTF-35 TOTAL XYLENES (mg/L)





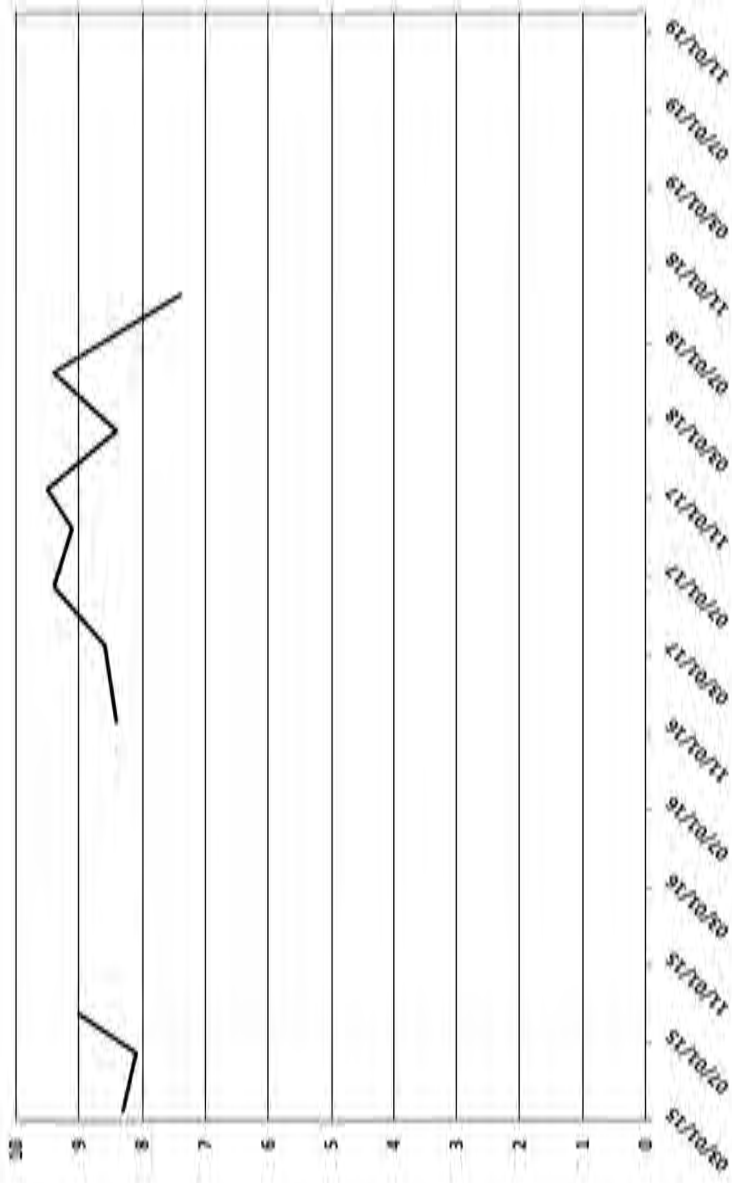
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BTEX & MTBE THROUGH 2019 - WELL MKTF-35		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34

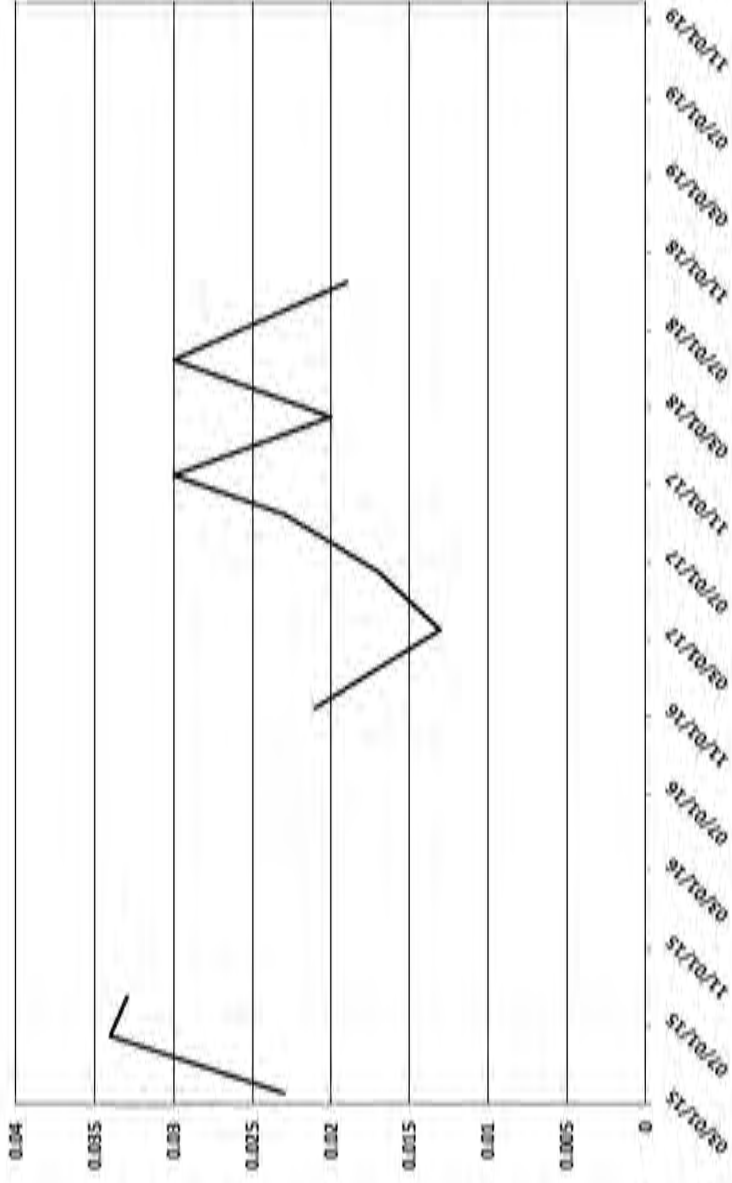
FIGURE 18.26



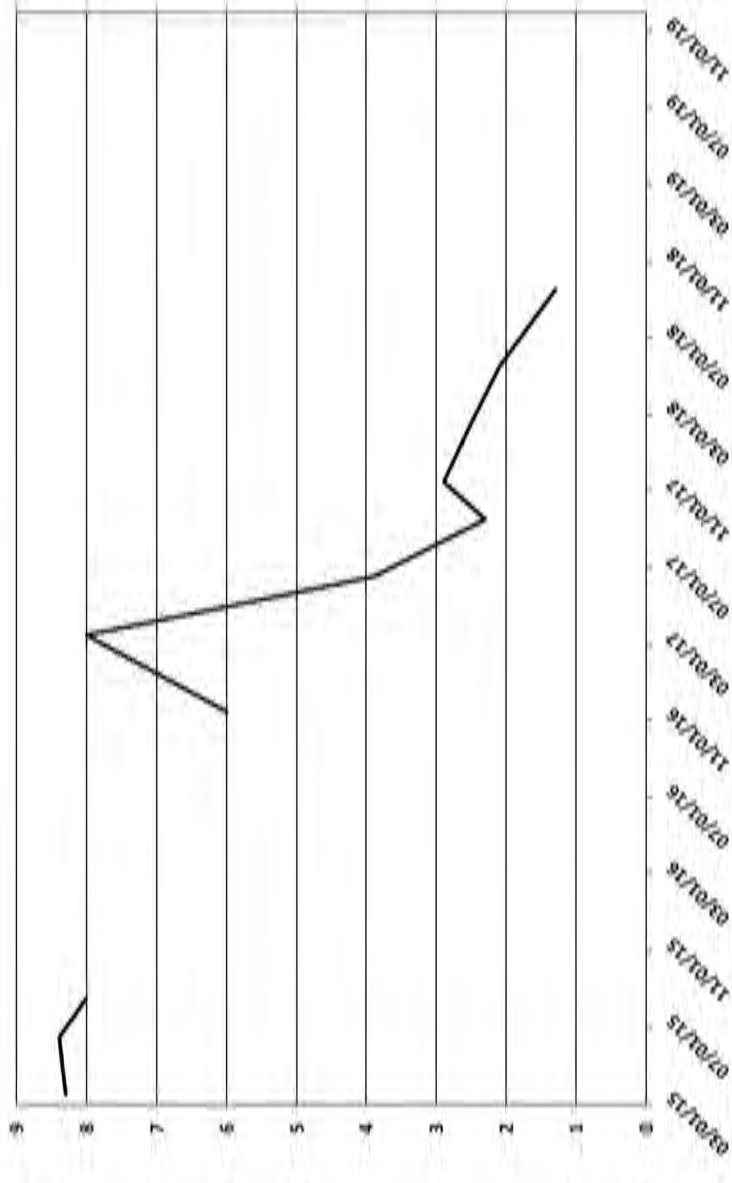
MKTF-36 BENZENE (mg/L)



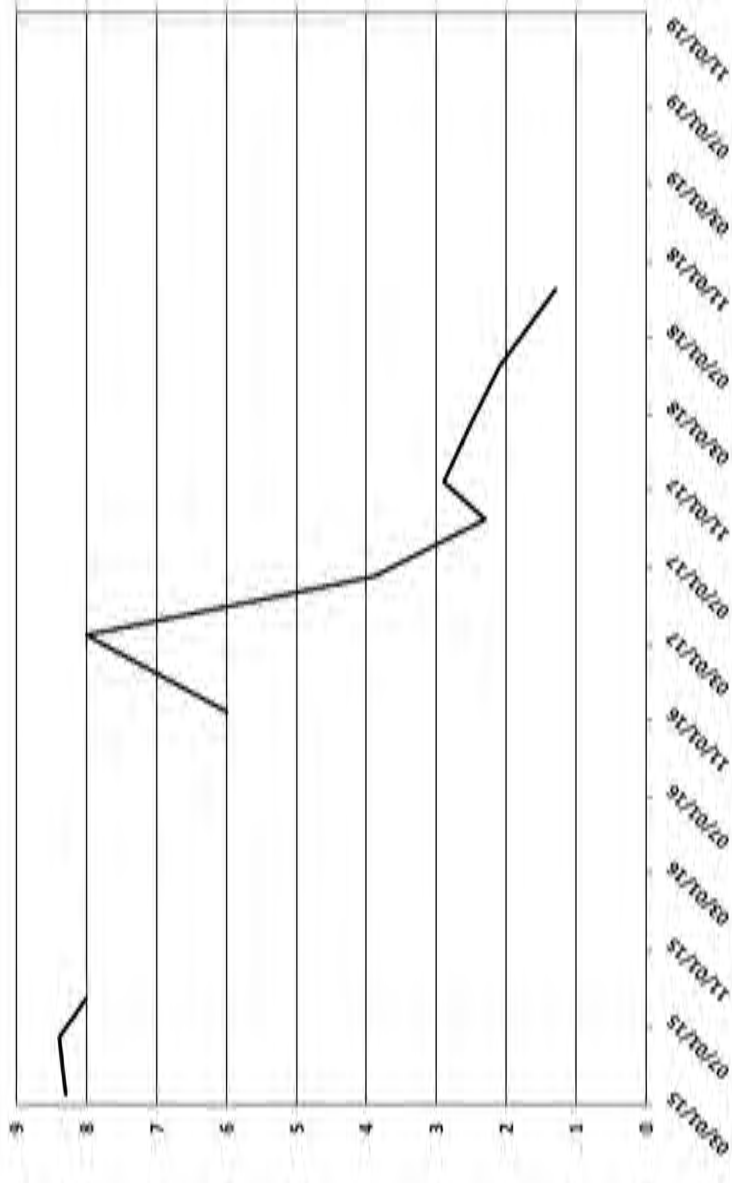
MKTF-36 TOLUENE (mg/L)



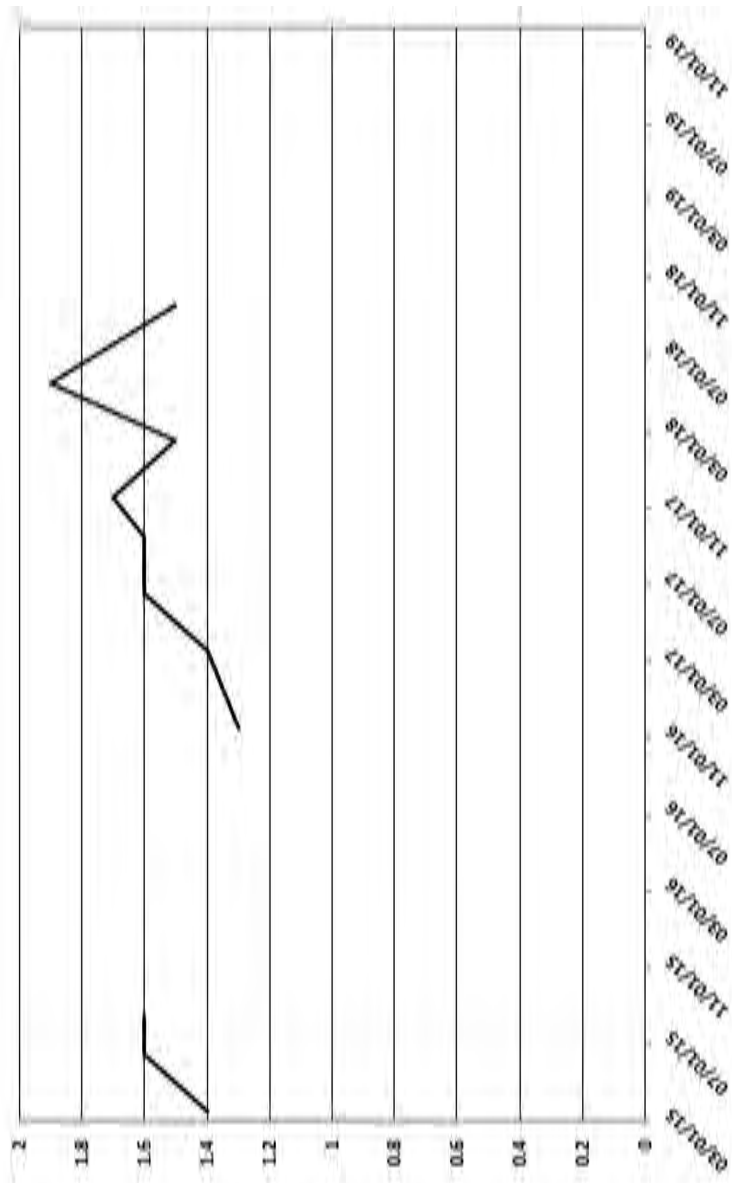
MKTF-36 MTBE (mg/L)



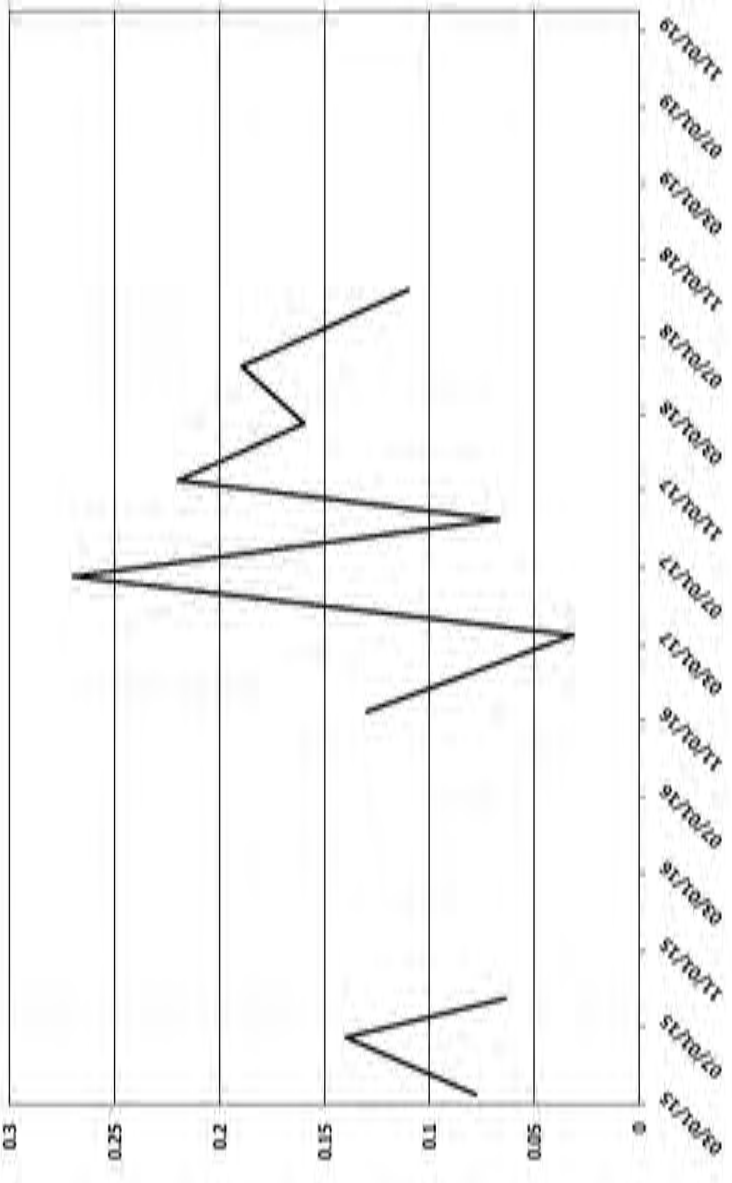
MKTF-36 MTBE (mg/L)



MKTF-36 ETHYLBENZENE (mg/L)



MKTF-36 TOTAL XYLENES (mg/L)





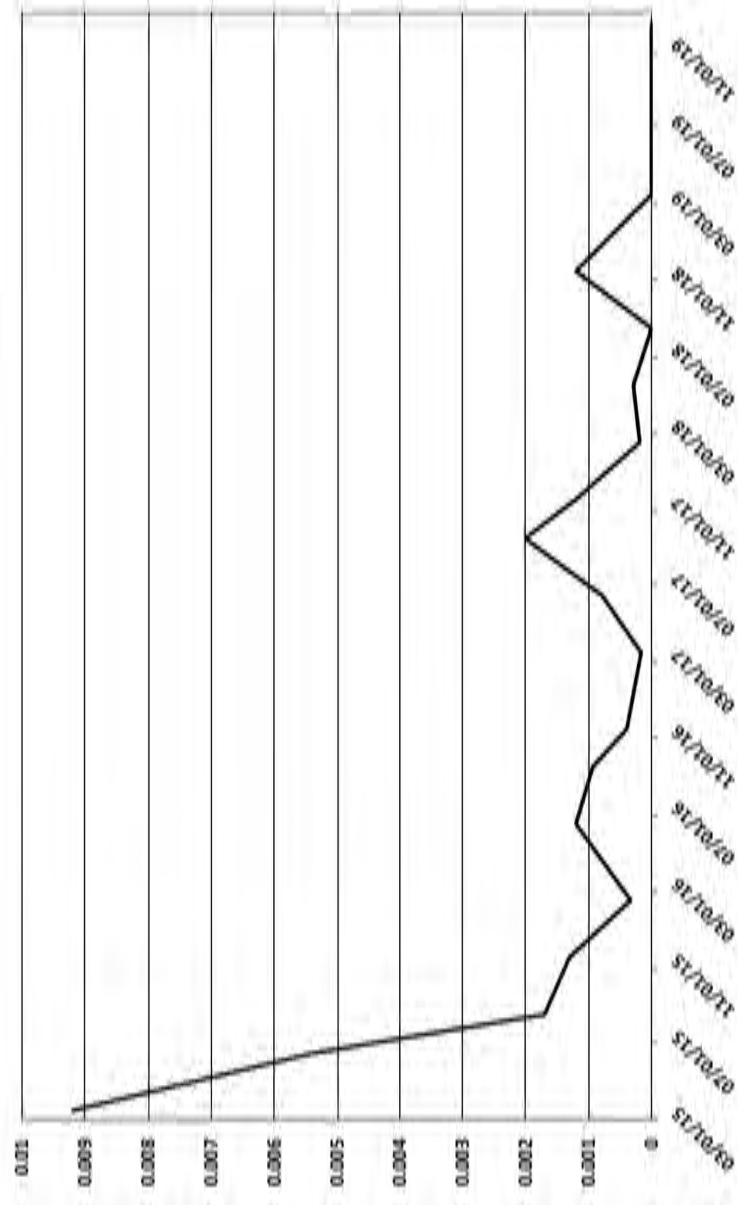
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BTEX & MTBE THROUGH 2019 - WELL MKTF-36		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34

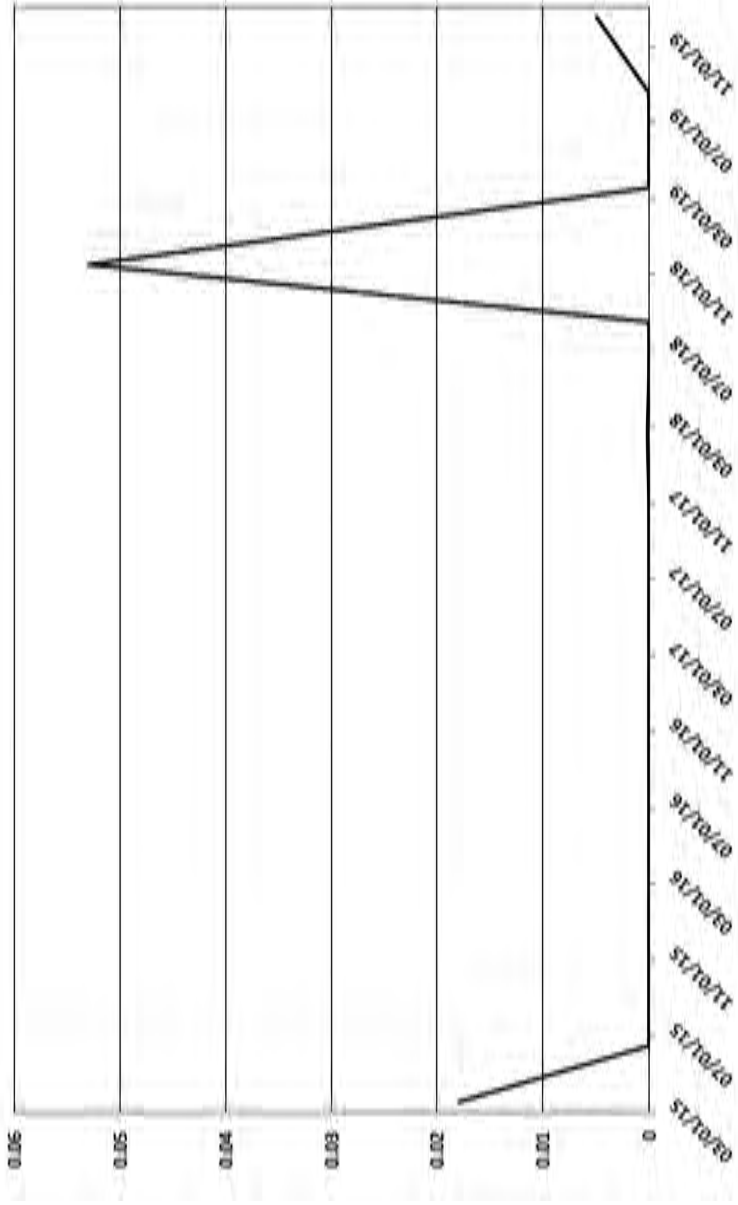
FIGURE 18.27



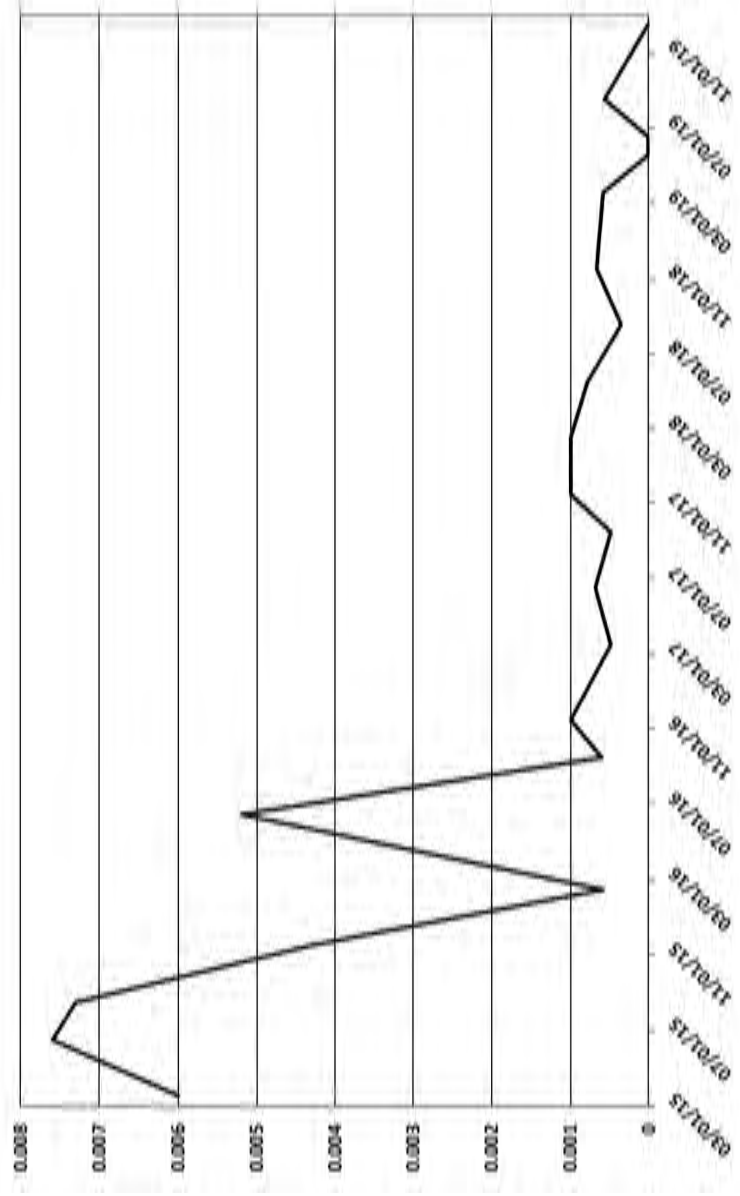
MKTF-38 BENZENE (mg/L)



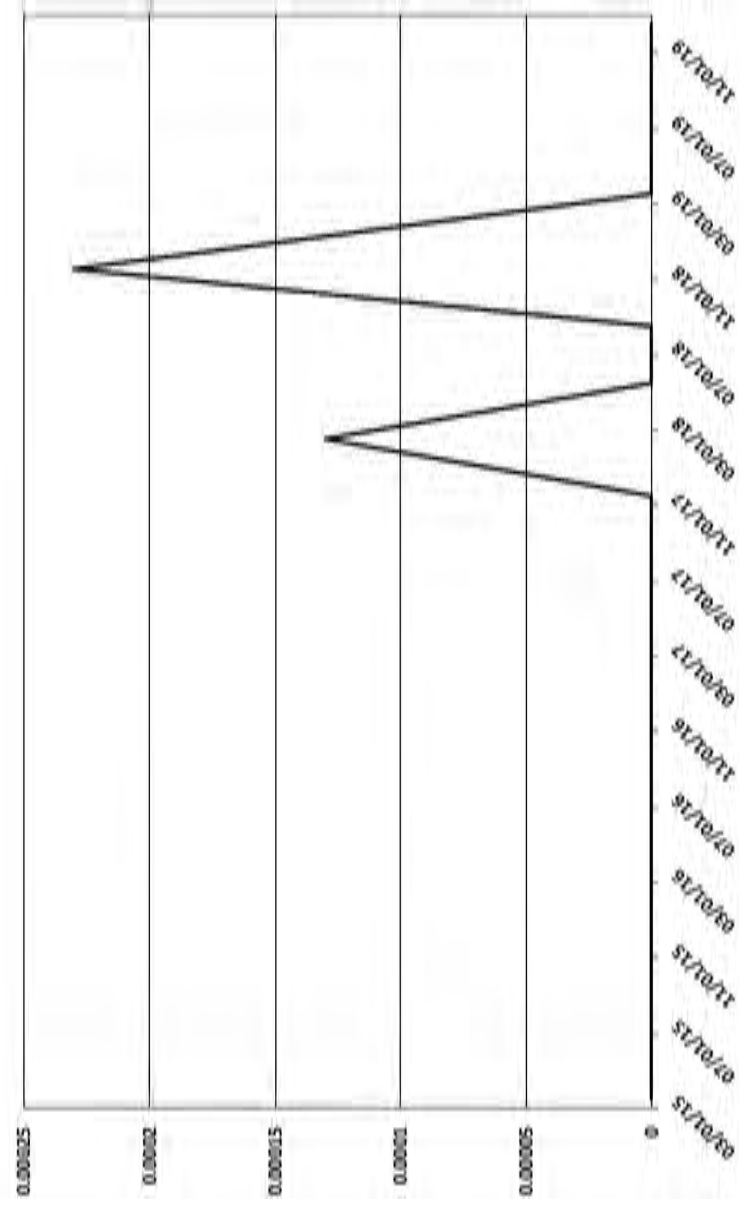
MKTF-38 TOLUENE (mg/L)



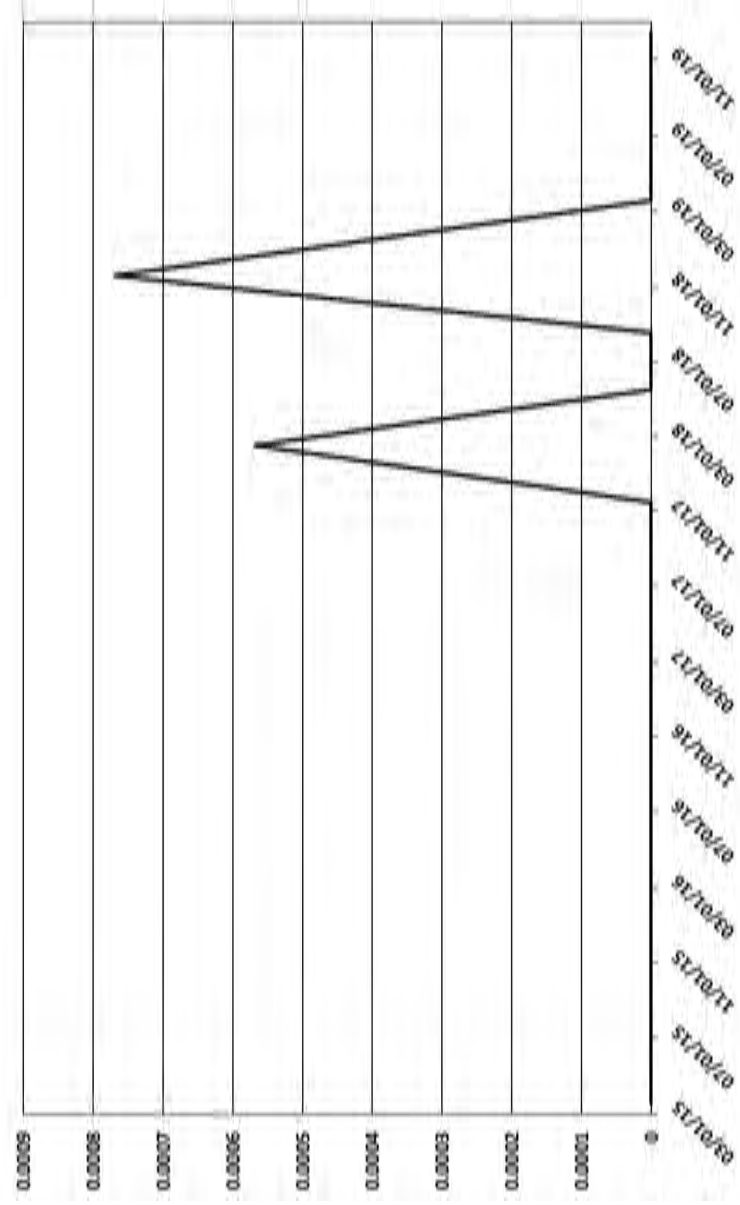
MKTF-38 MTBE (mg/L)



MKTF-38 ETHYLBENZENE (mg/L)



MKTF-38 TOTAL XYLENES (mg/L)





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FIGURE 18.28

BTEX & MTBE THROUGH 2019 - WELL MKTF-38

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM

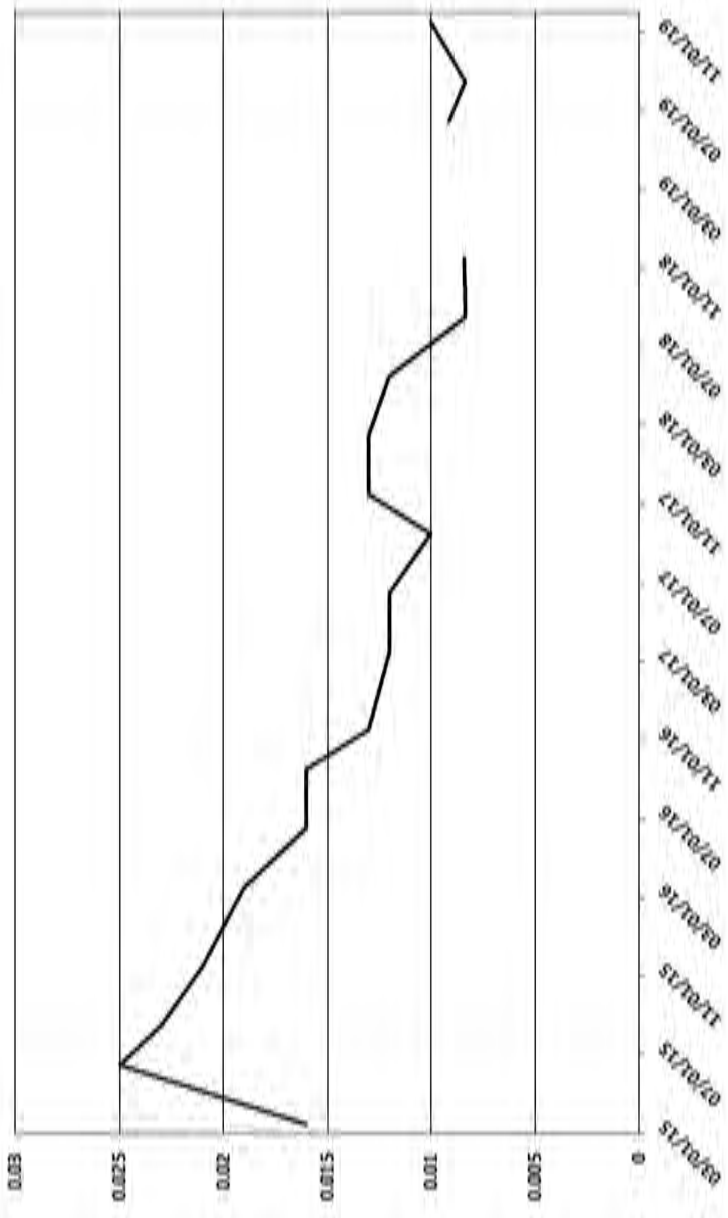
Scale: NONE

Date: 9/15/2020

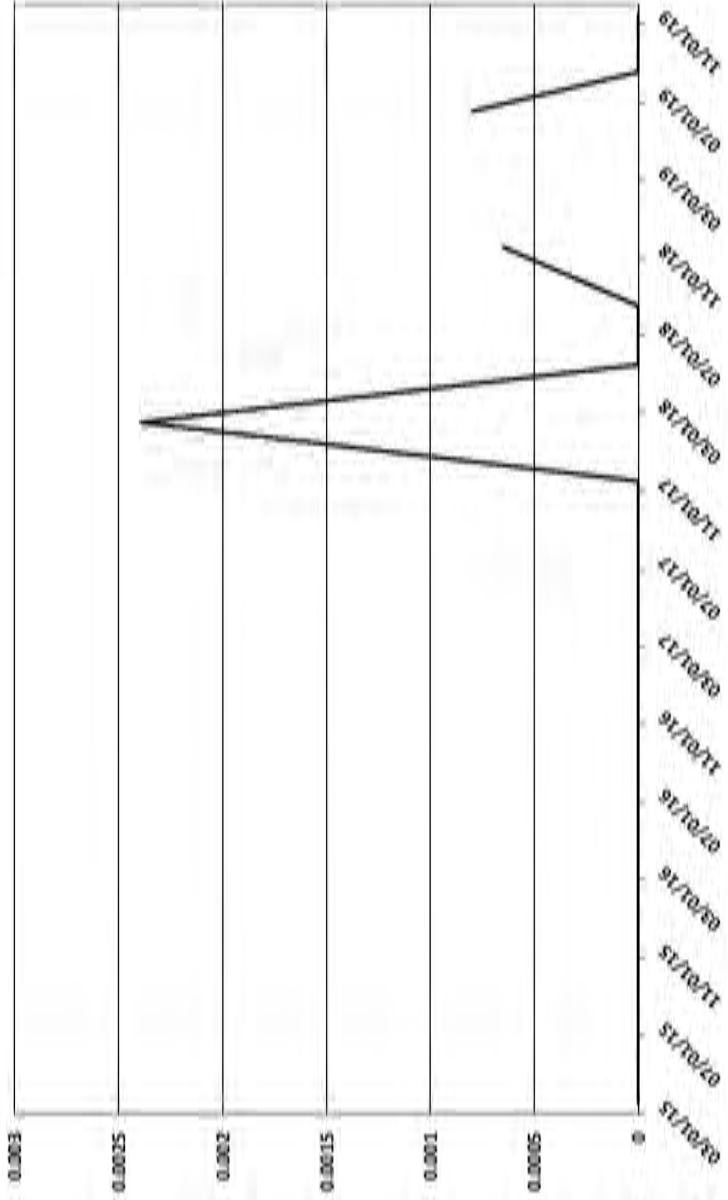
File: 697-GWMON-2019-FIGS-18.21-18.34



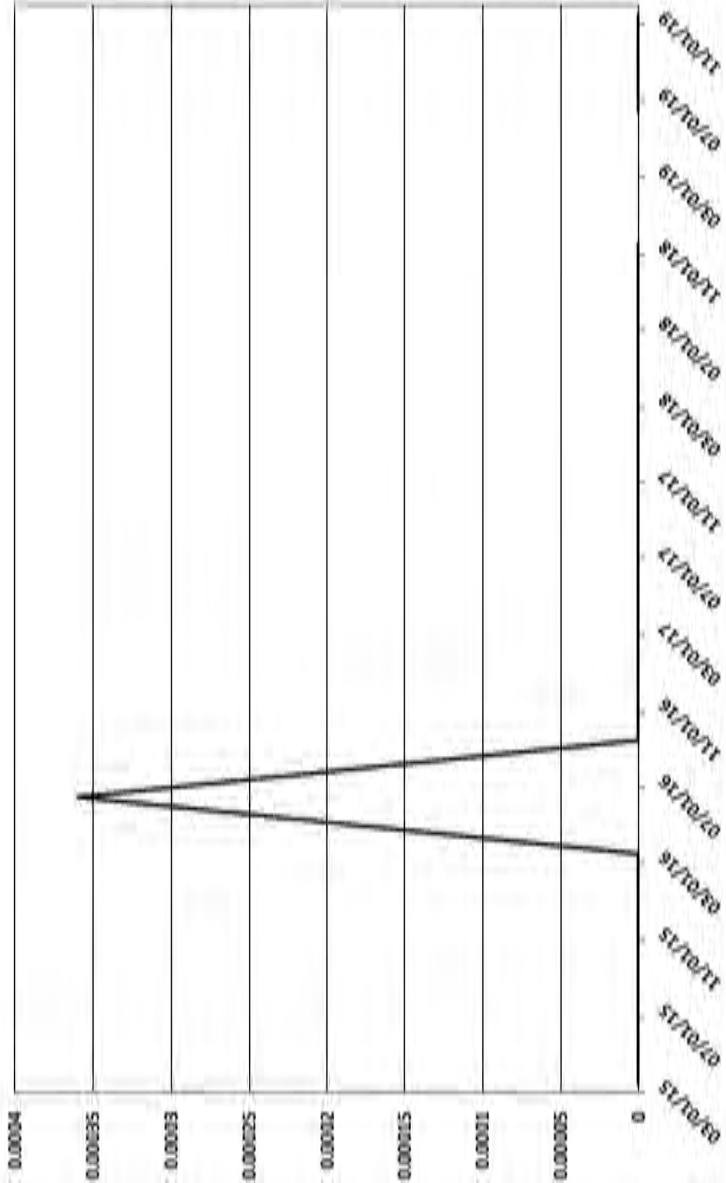
MKTF-39 BENZENE (mg/L)



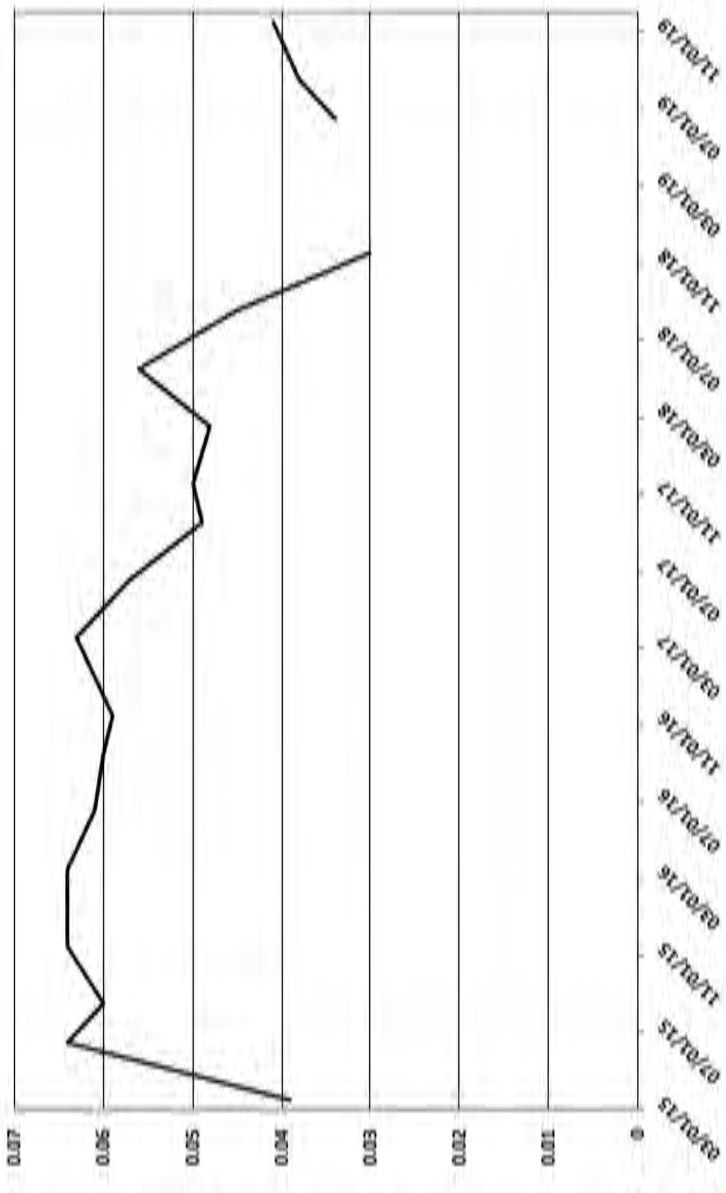
MKTF-39 TOLUENE (mg/L)



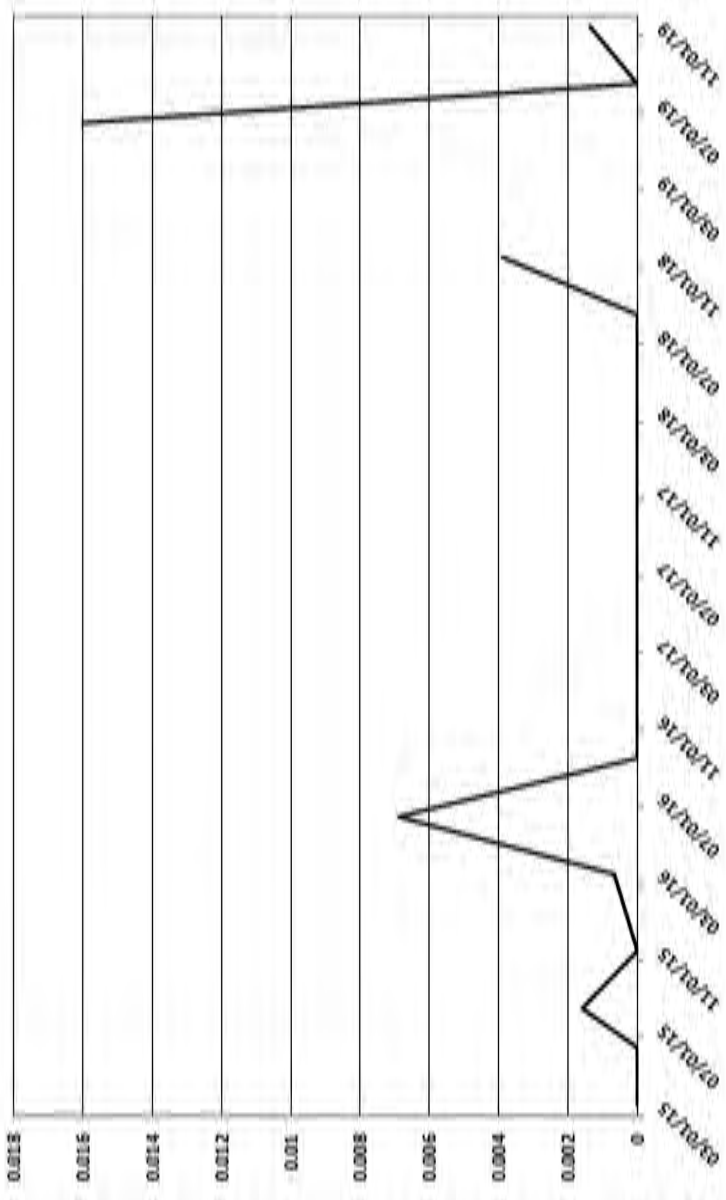
MKTF-39 MTBE (mg/L)



MKTF-39 ETHYLBENZENE (mg/L)



MKTF-39 TOTAL XYLENES (mg/L)





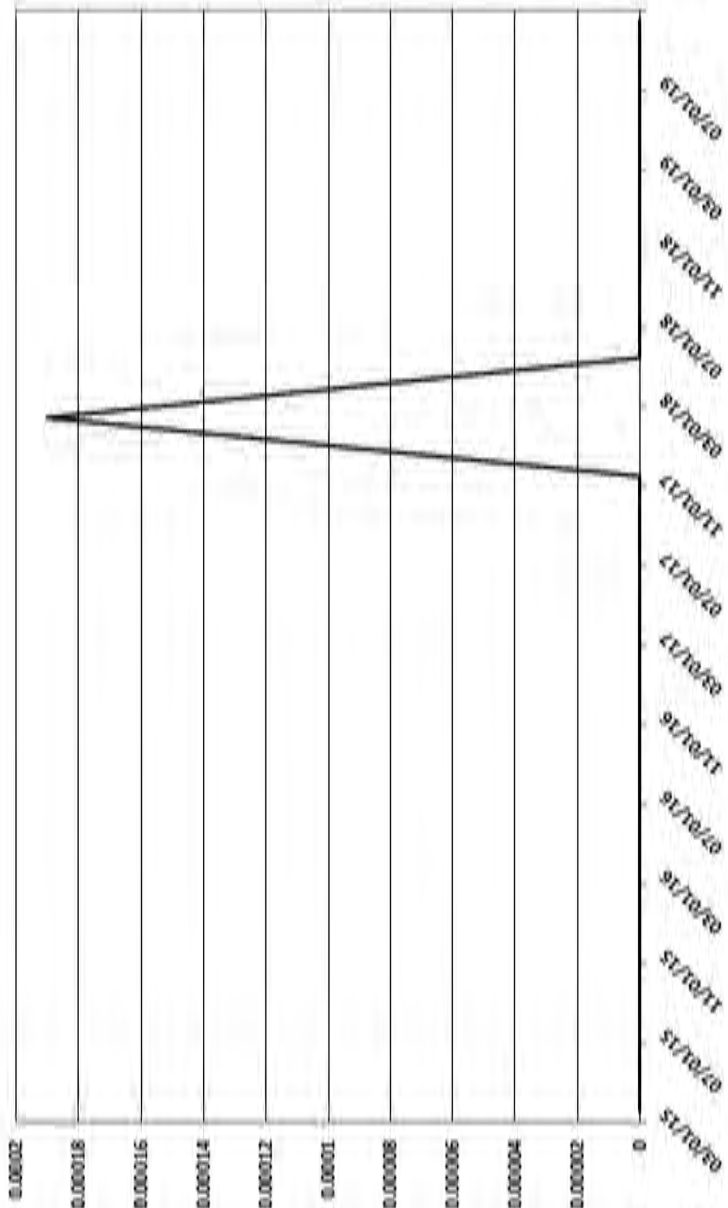
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BTEX & MTBE THROUGH 2019 - WELL MKTF-39		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Scale: NONE

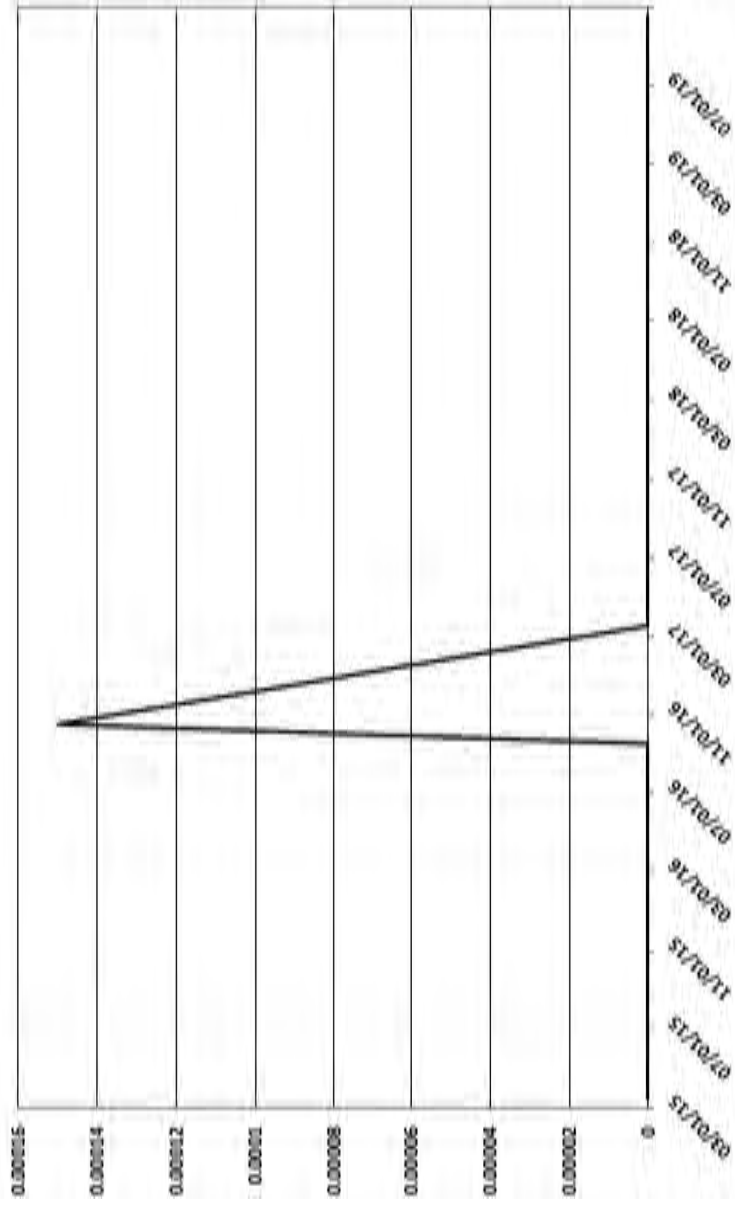
FIGURE 18.29



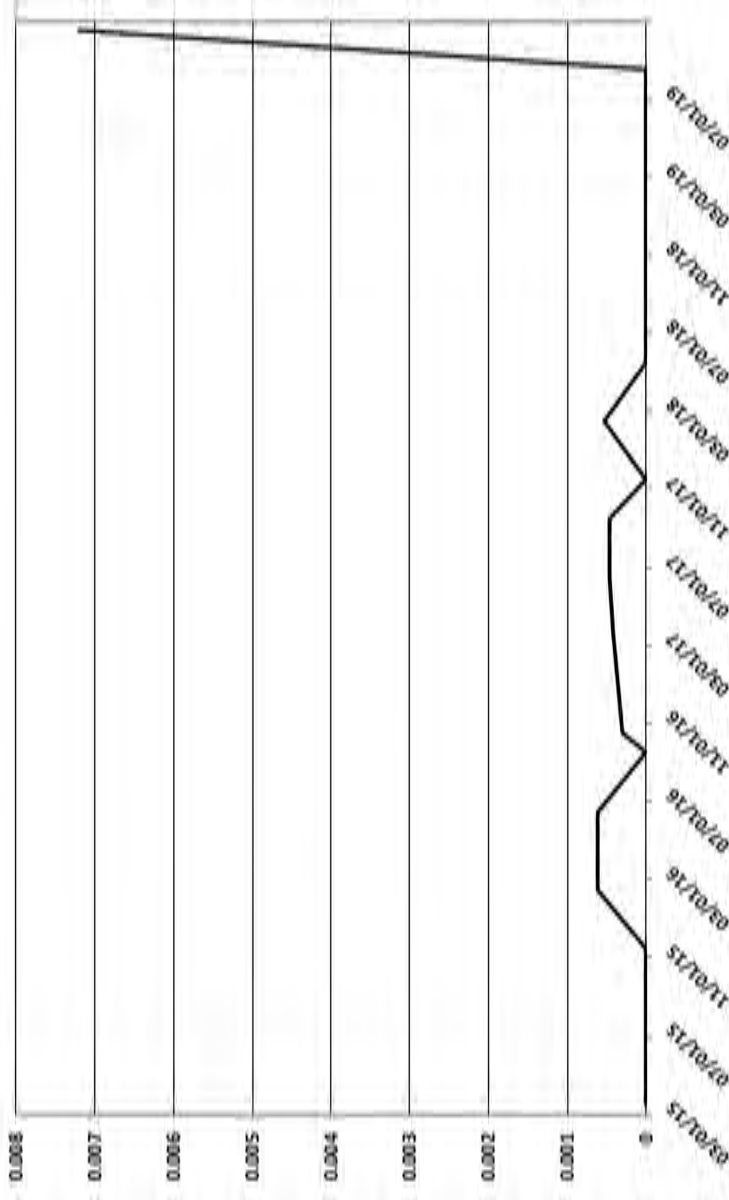
MKTF-40 BENZENE (mg/L)



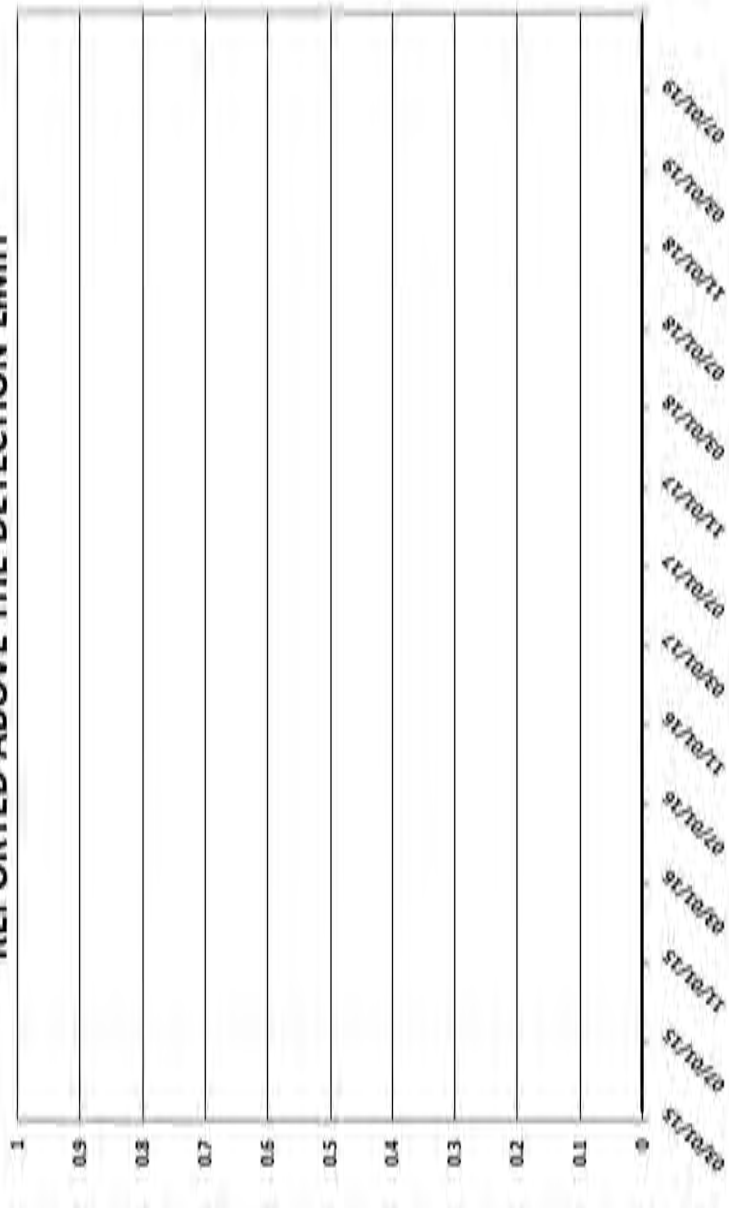
MKTF-40 TOLUENE (mg/L)



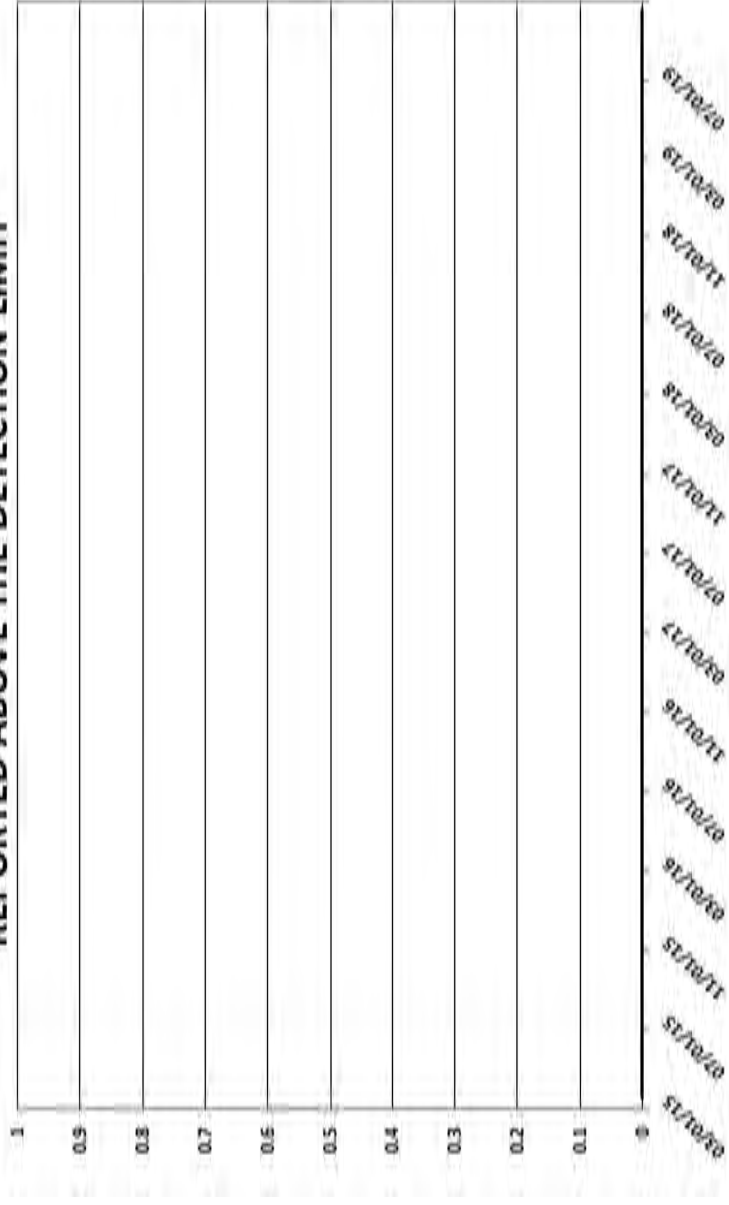
MKTF-40 MTBE (mg/L)



MKTF-40 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-40 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





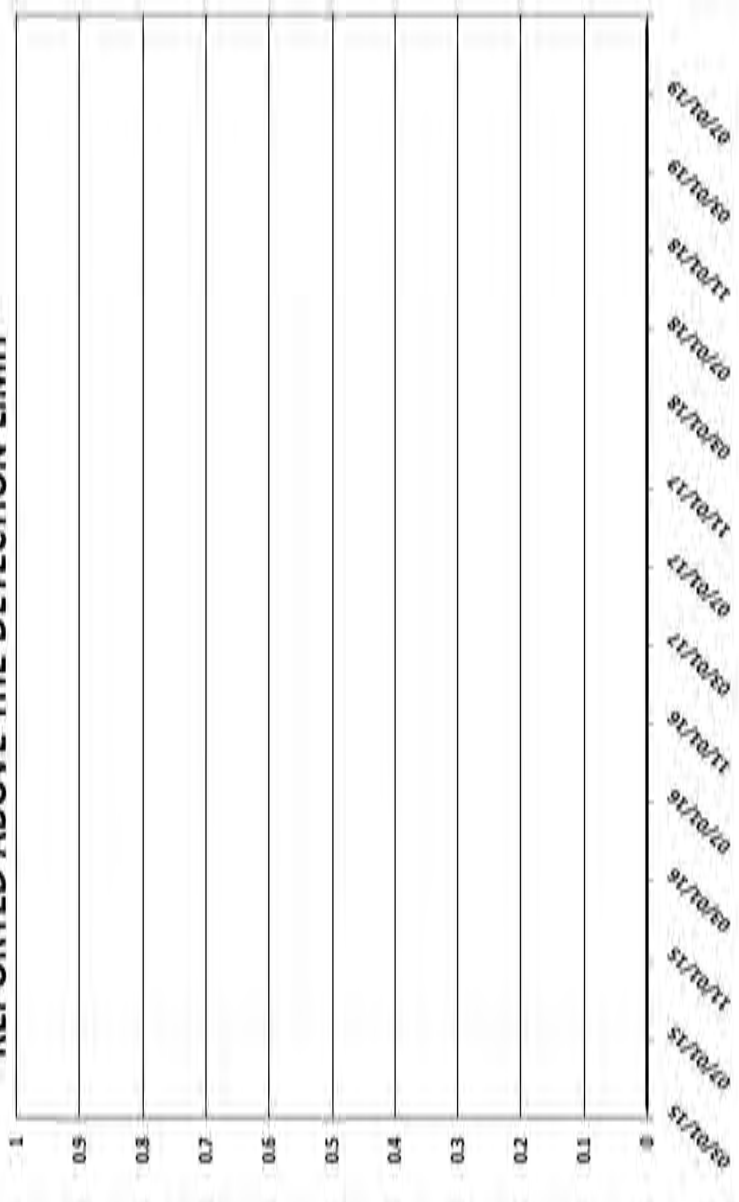
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BTEX & MTBE THROUGH 2019 - WELL MKTF-40		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020   File: 697-GWMON-2019-FIGS-18.21-18.34

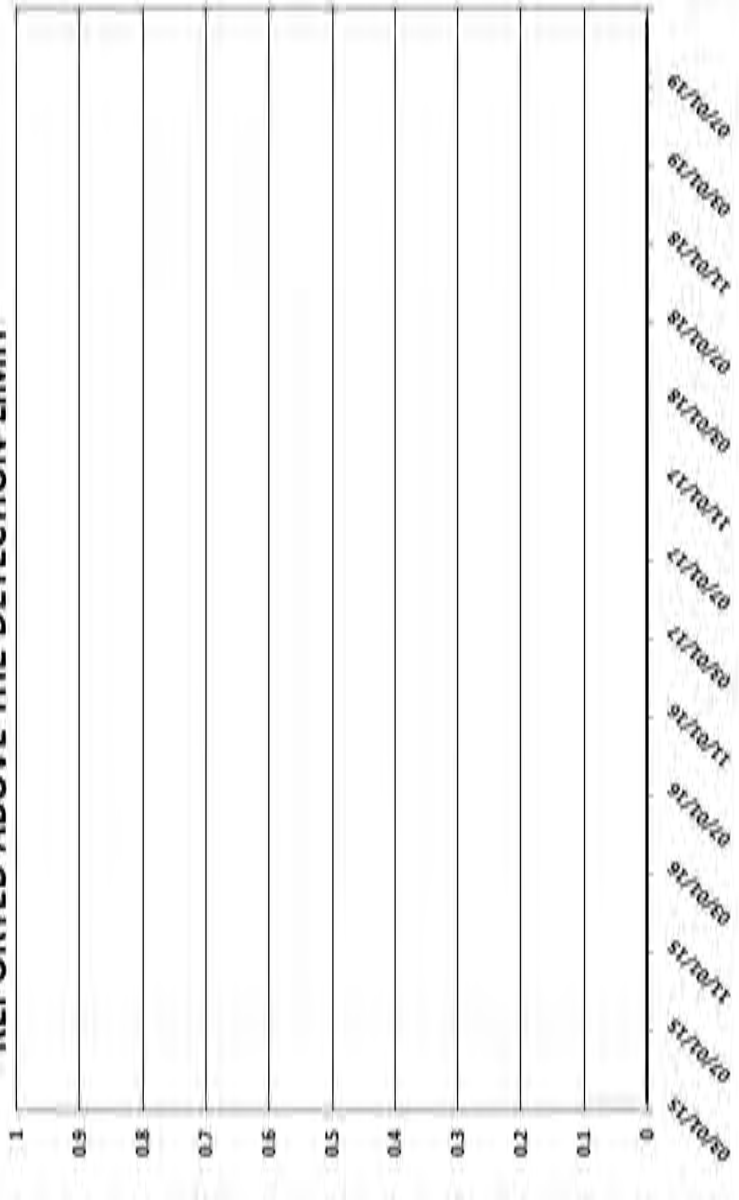
FIGURE 18.30



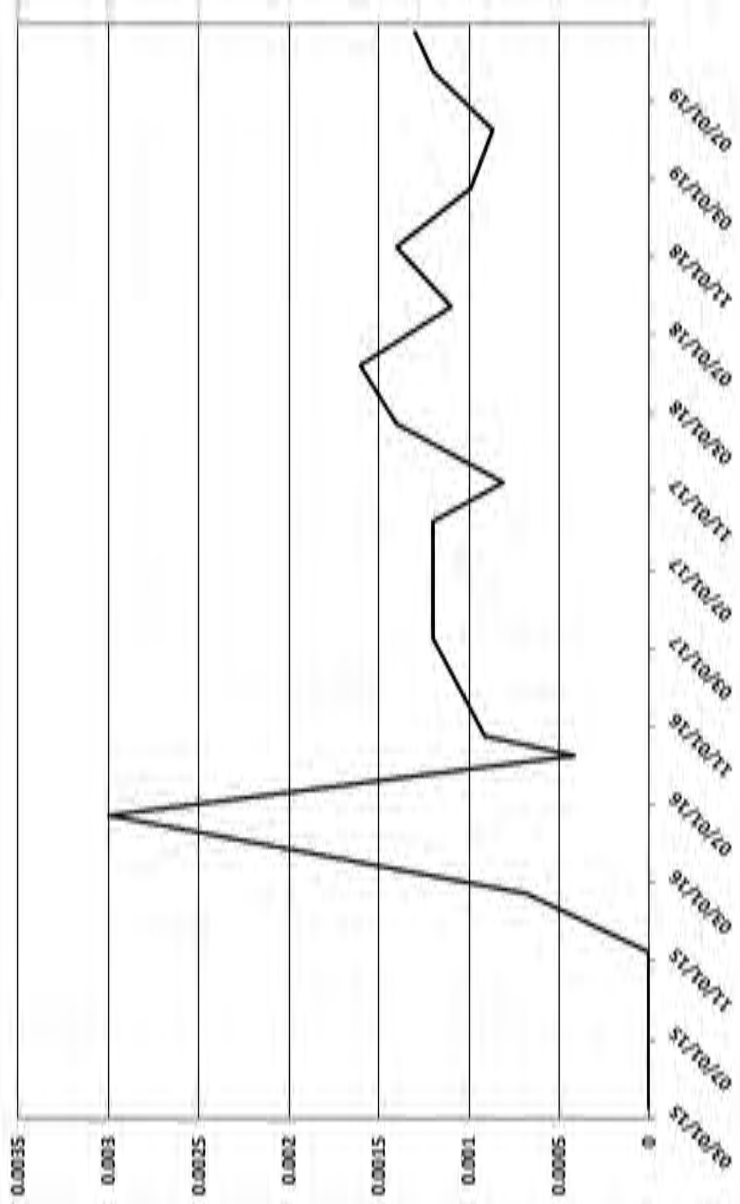
MKTF-41 BENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



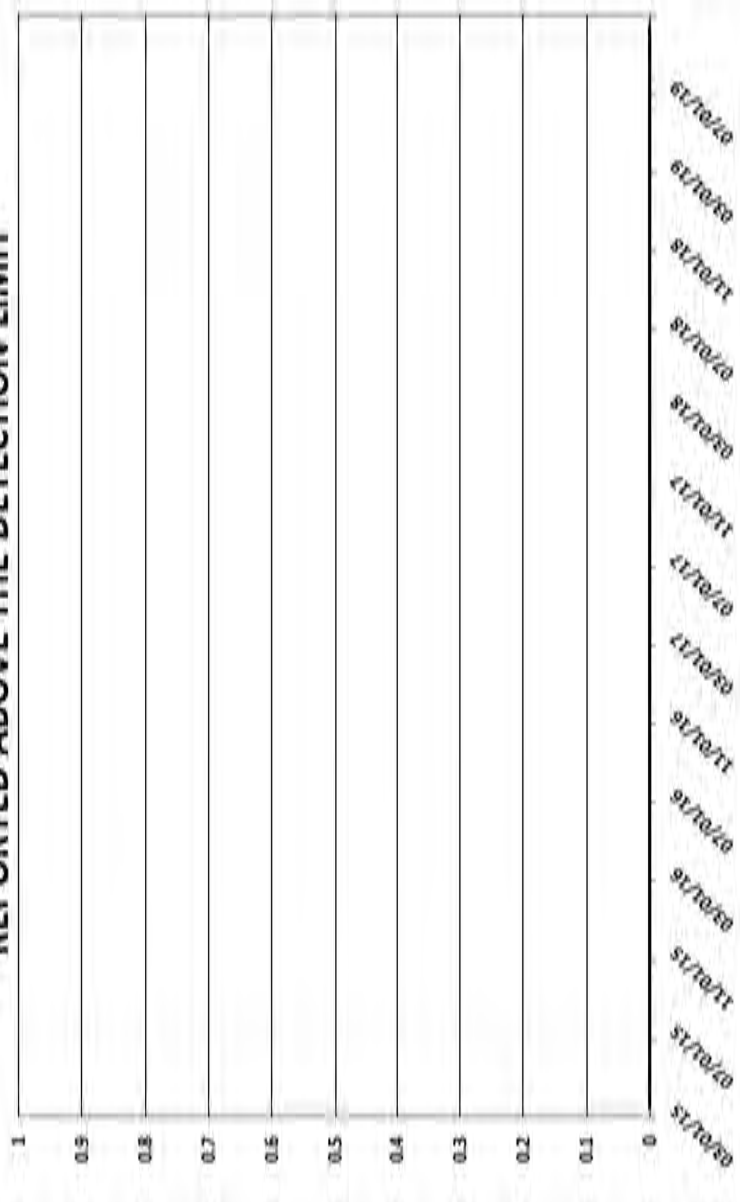
MKTF-41 TOLUENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



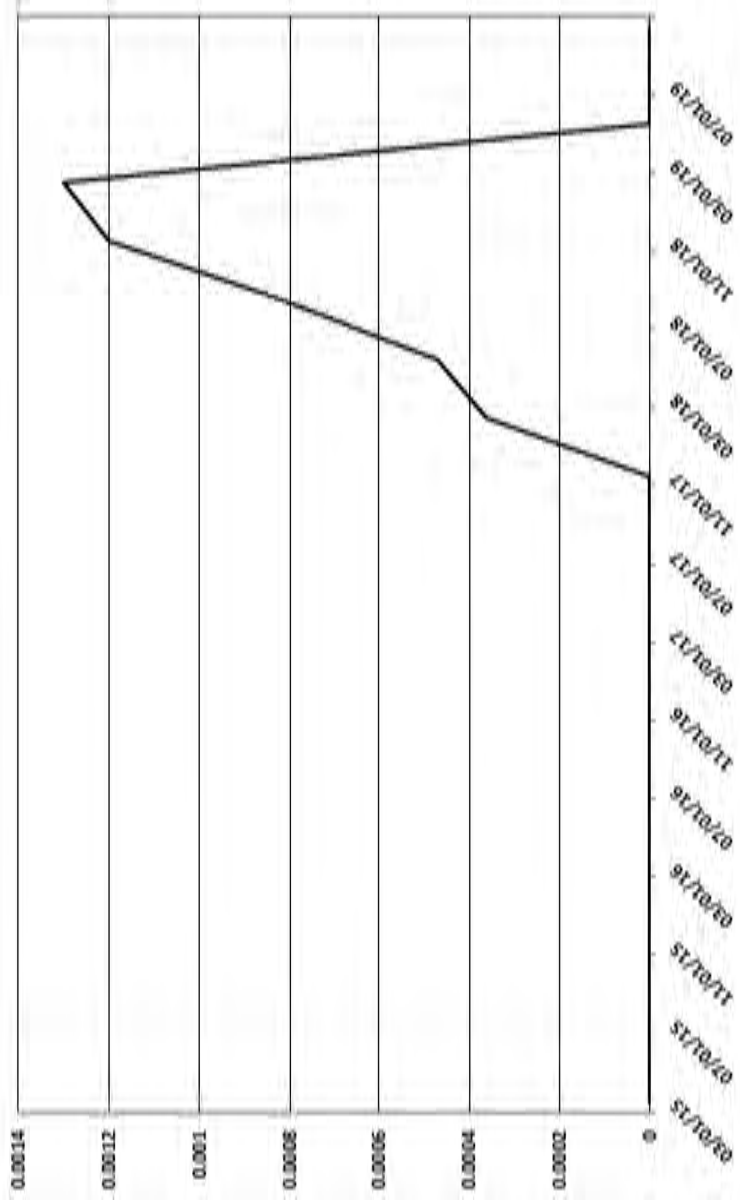
MKTF-41 MTBE (mg/L)



MKTF-41 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-41 TOTAL XYLENES (mg/L)





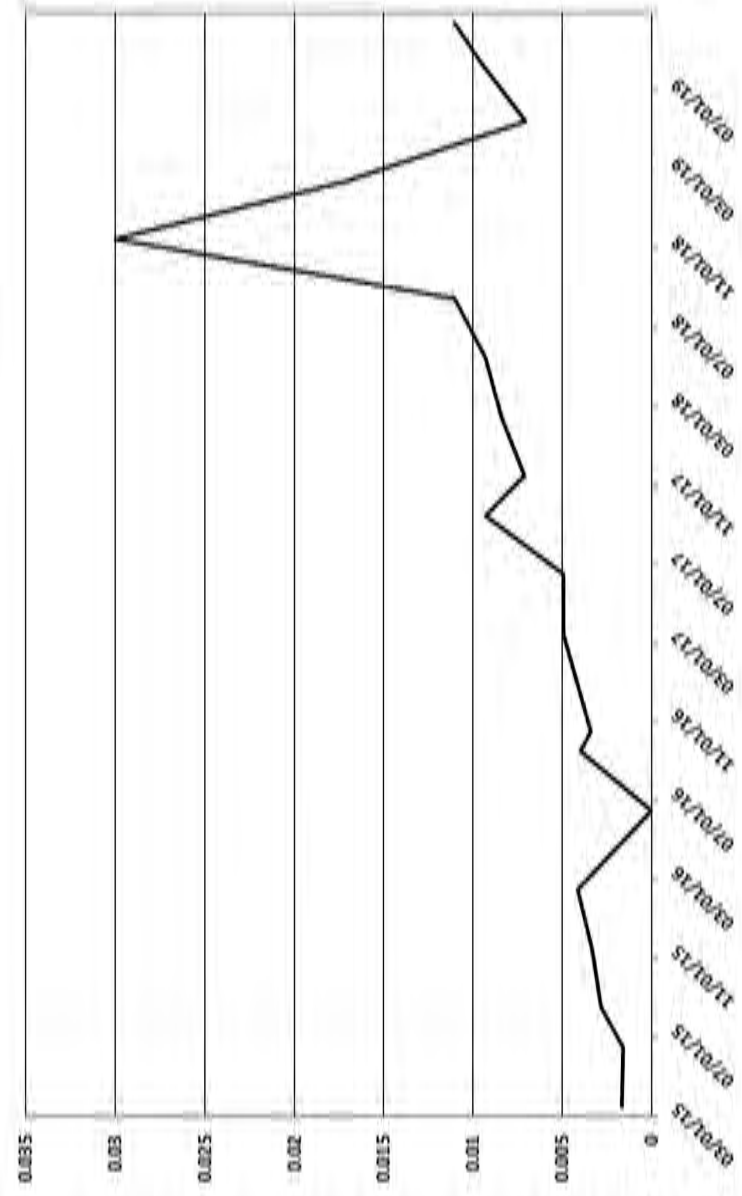
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BTEX & MTBE THROUGH 2019 - WELL MKTF-41		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

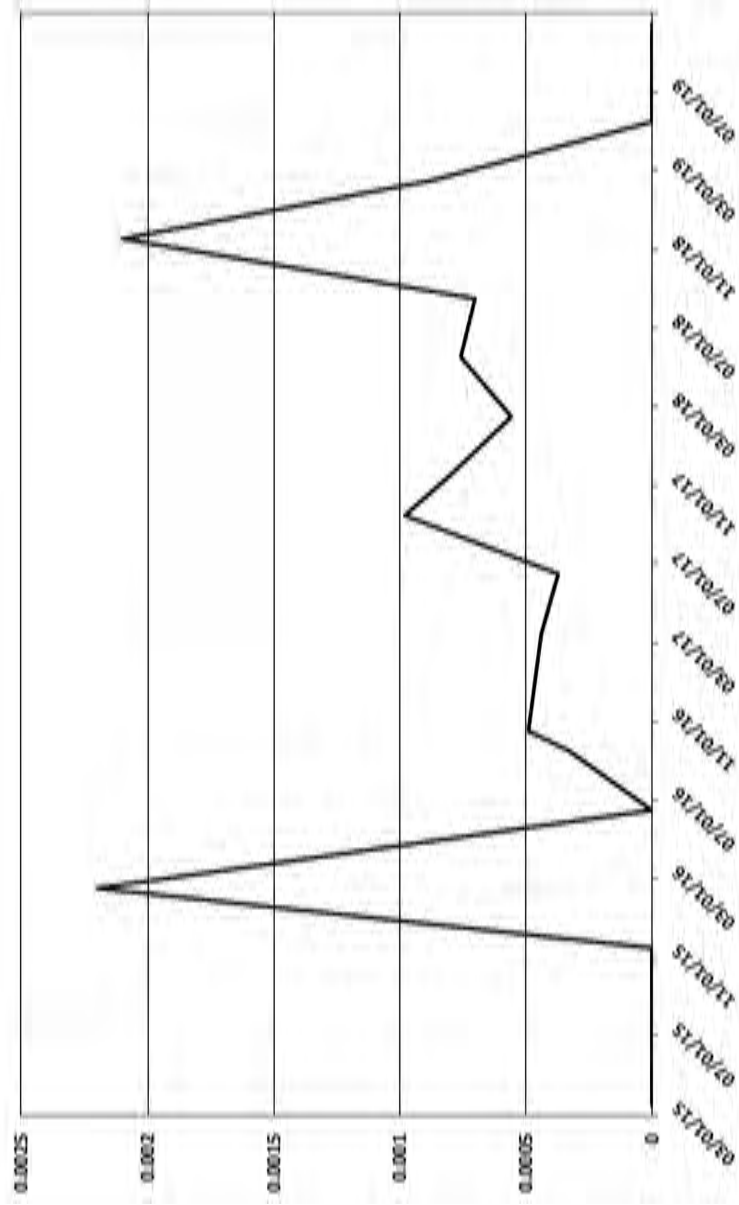
FIGURE 18.31



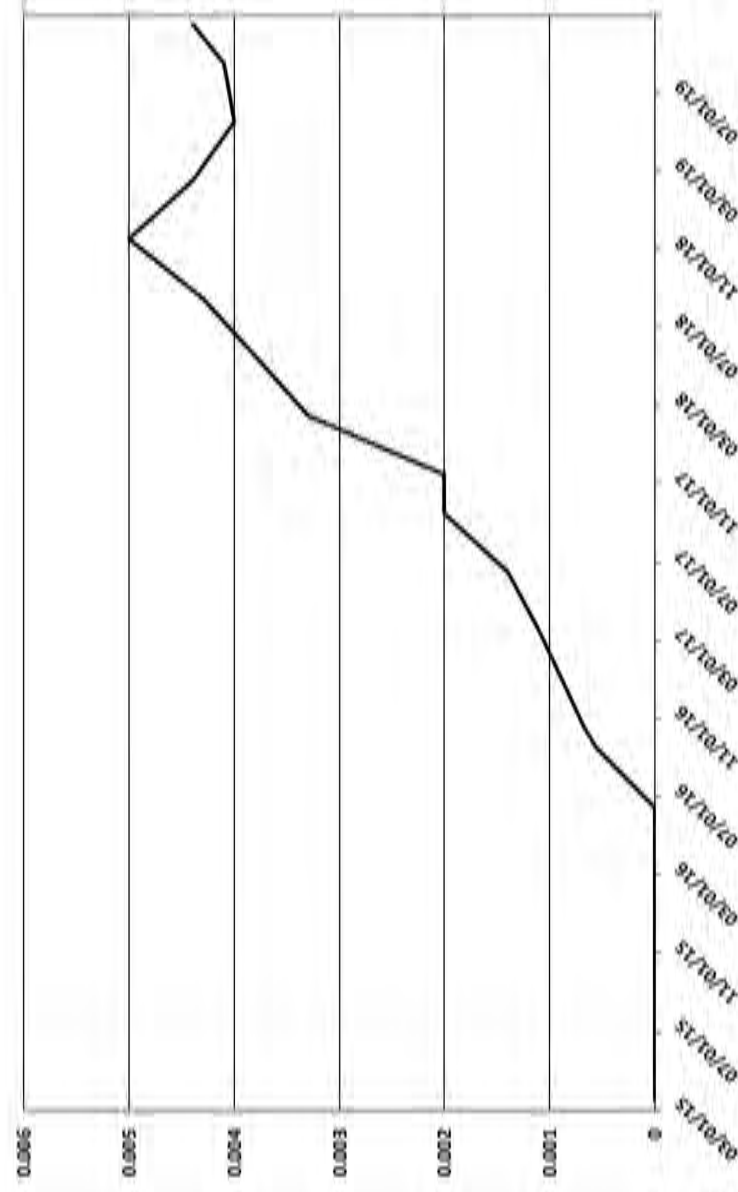
MKTF-42 BENZENE (mg/L)



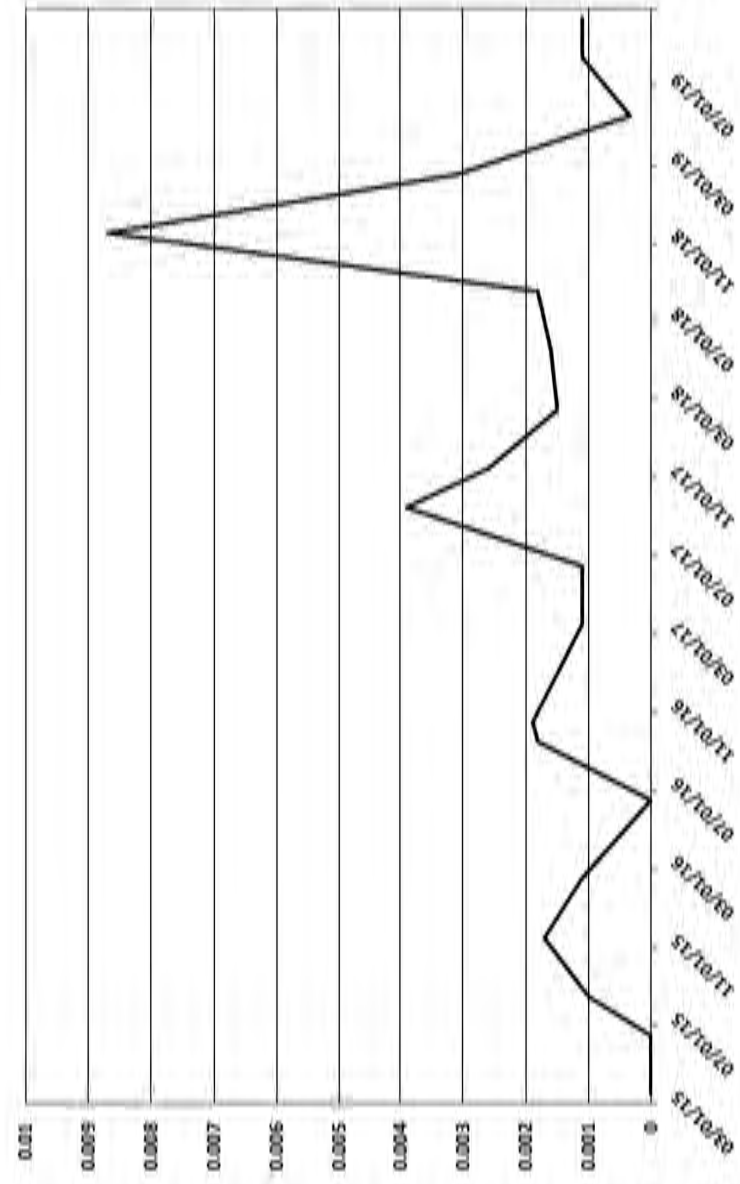
MKTF-42 TOLUENE (mg/L)



MKTF-42 MTBE (mg/L)



MKTF-42 ETHYLBENZENE (mg/L)



MKTF-42 TOTAL XYLENES (mg/L)

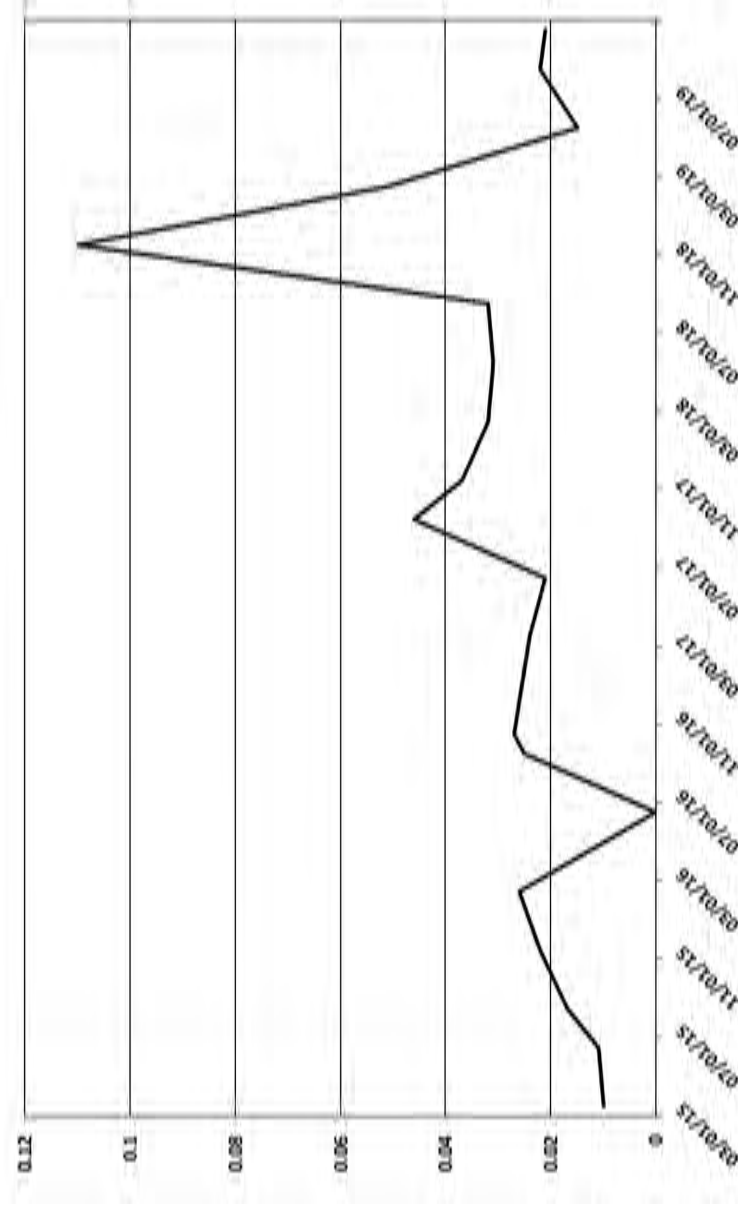
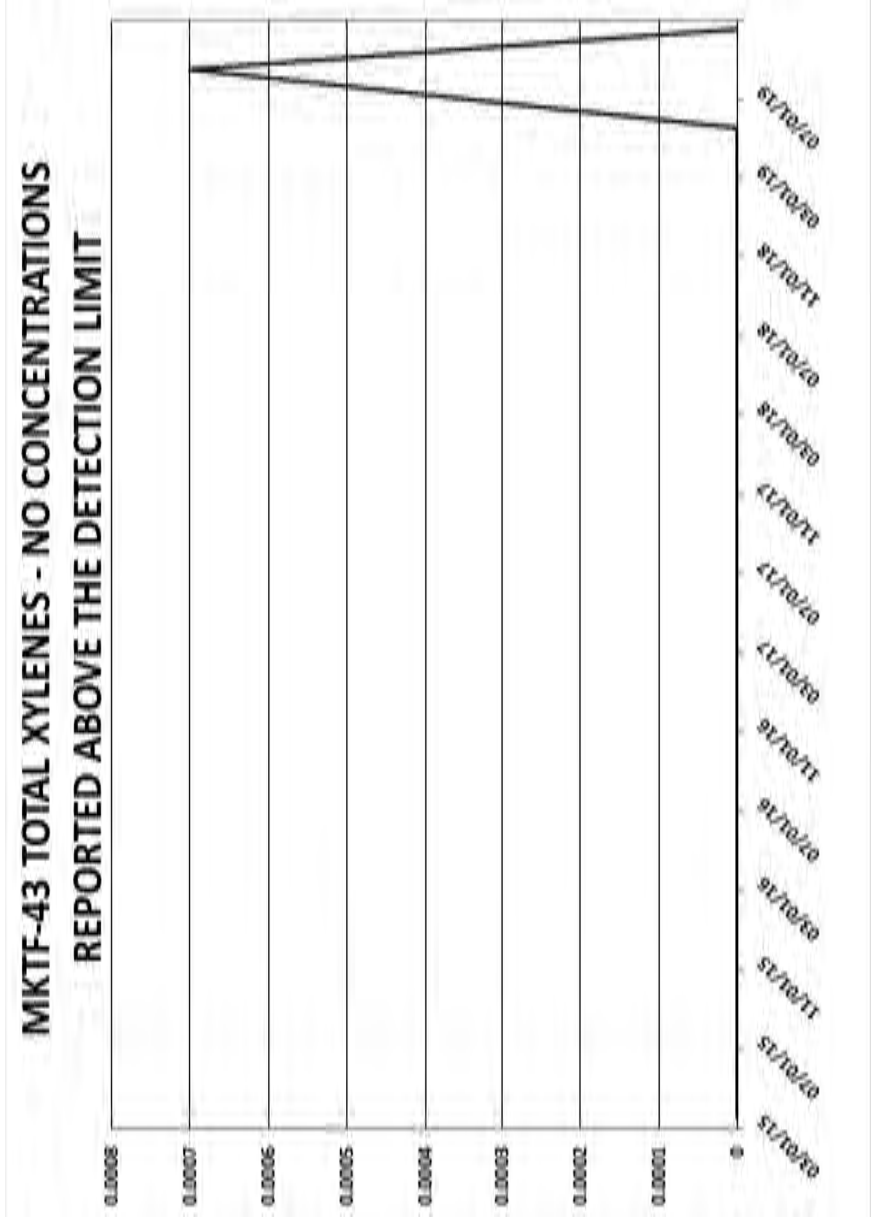
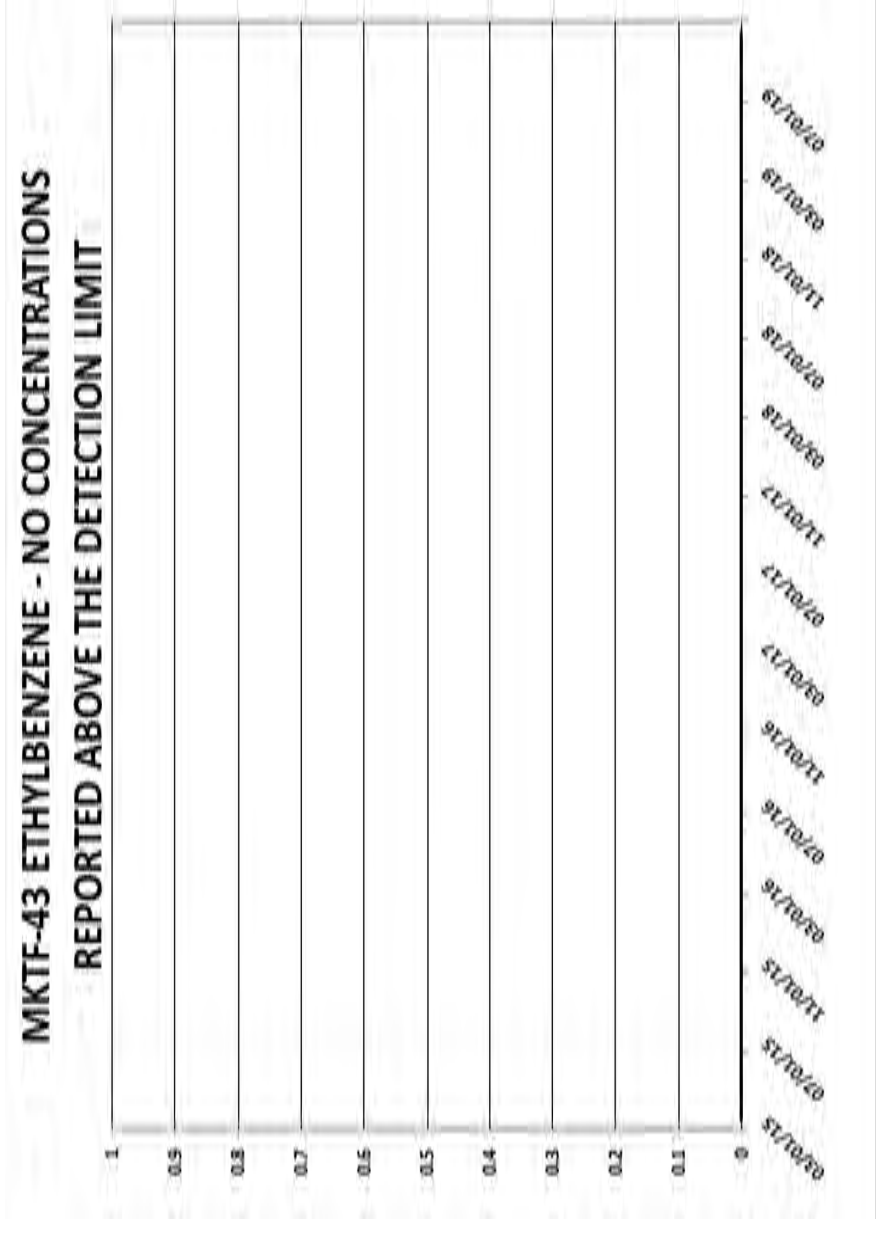
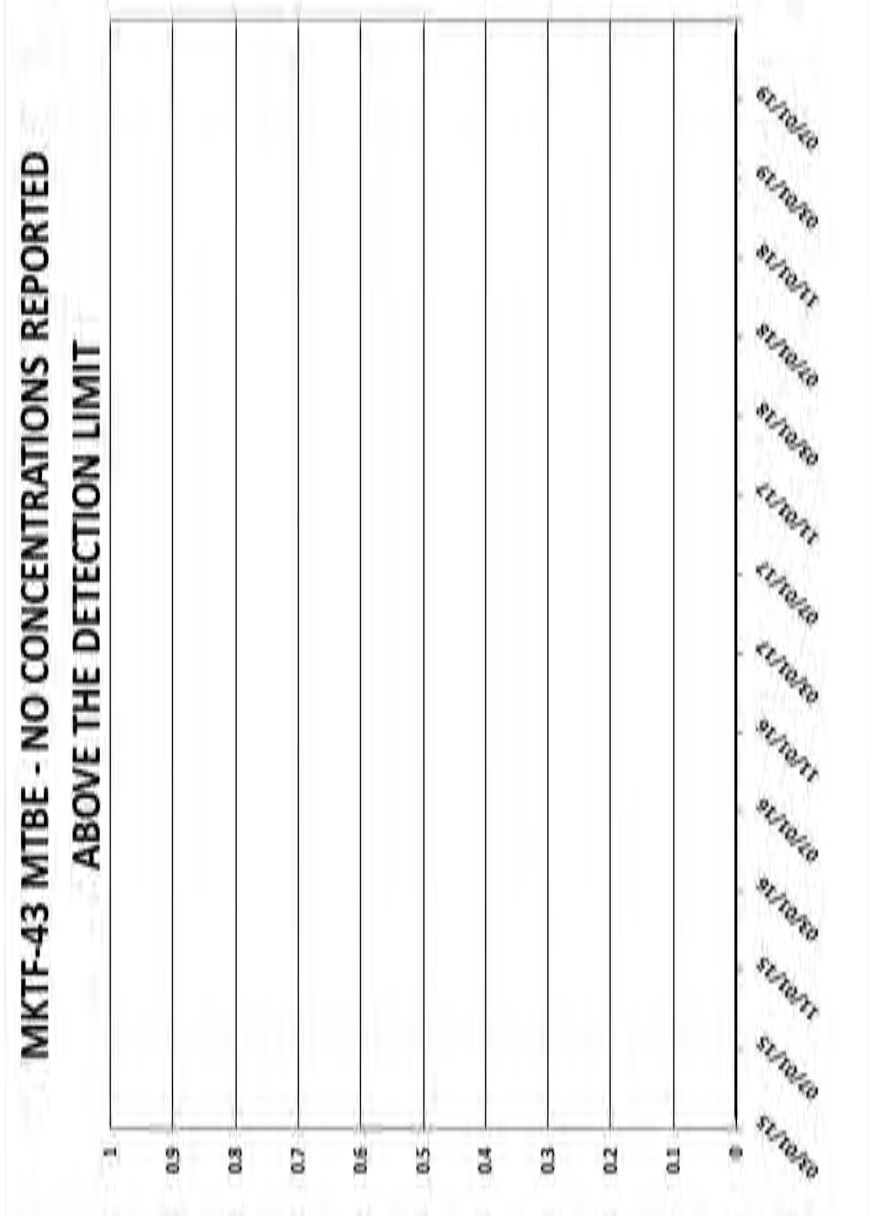
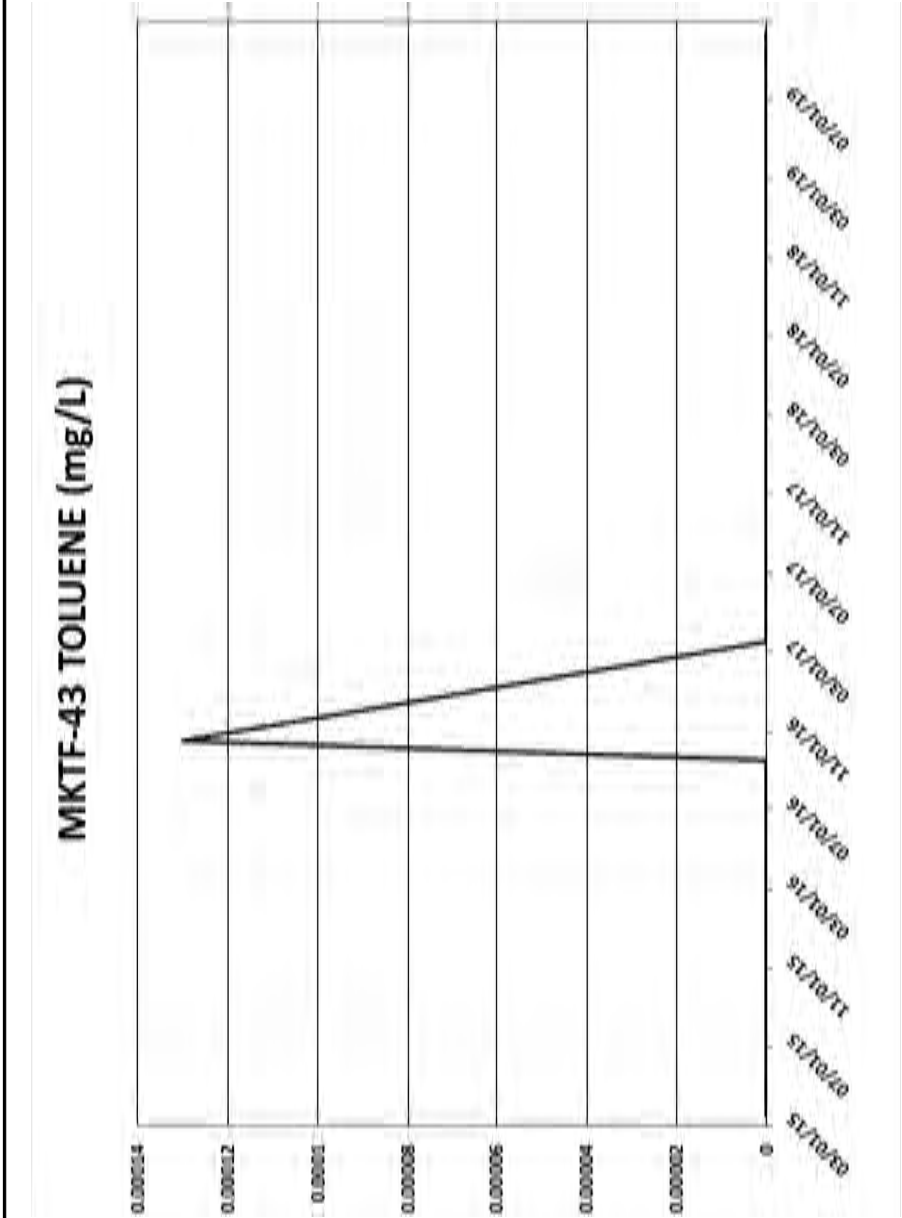
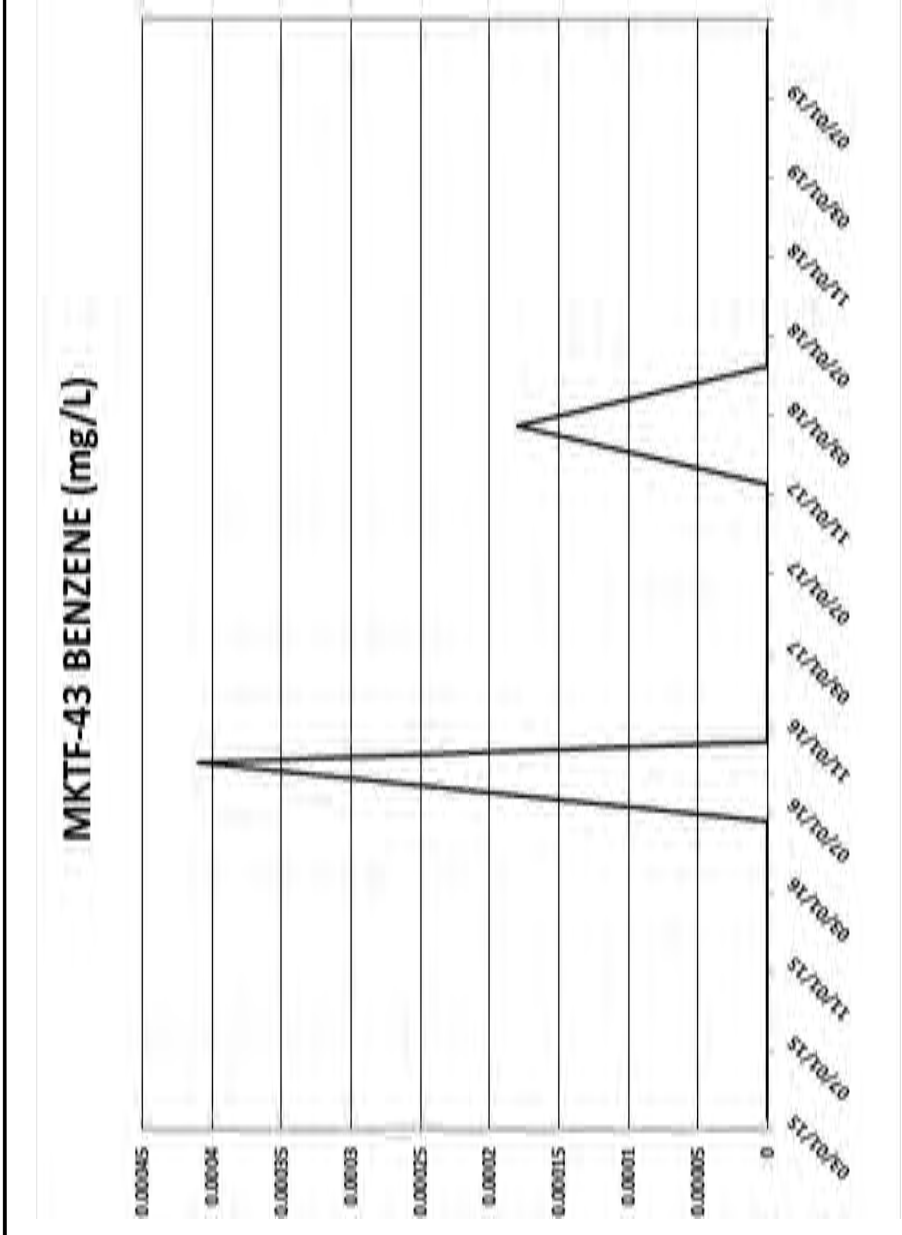


FIGURE 18.32

BTEX & MTBE THROUGH 2019 - WELL MKTF-42  
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

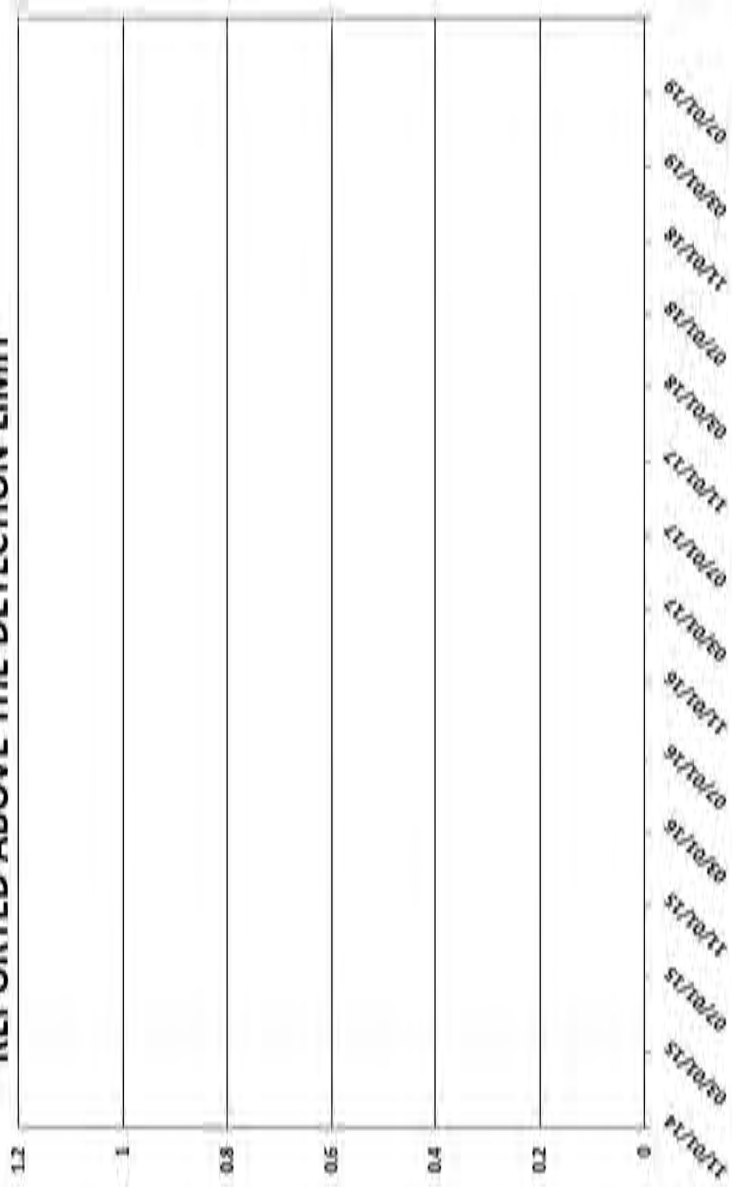
Drawn By: REP Checked By: BM Scale: NONE Date: 9/15/2020 File: 697-GWMON-2019-FIGS-18.21-18.34



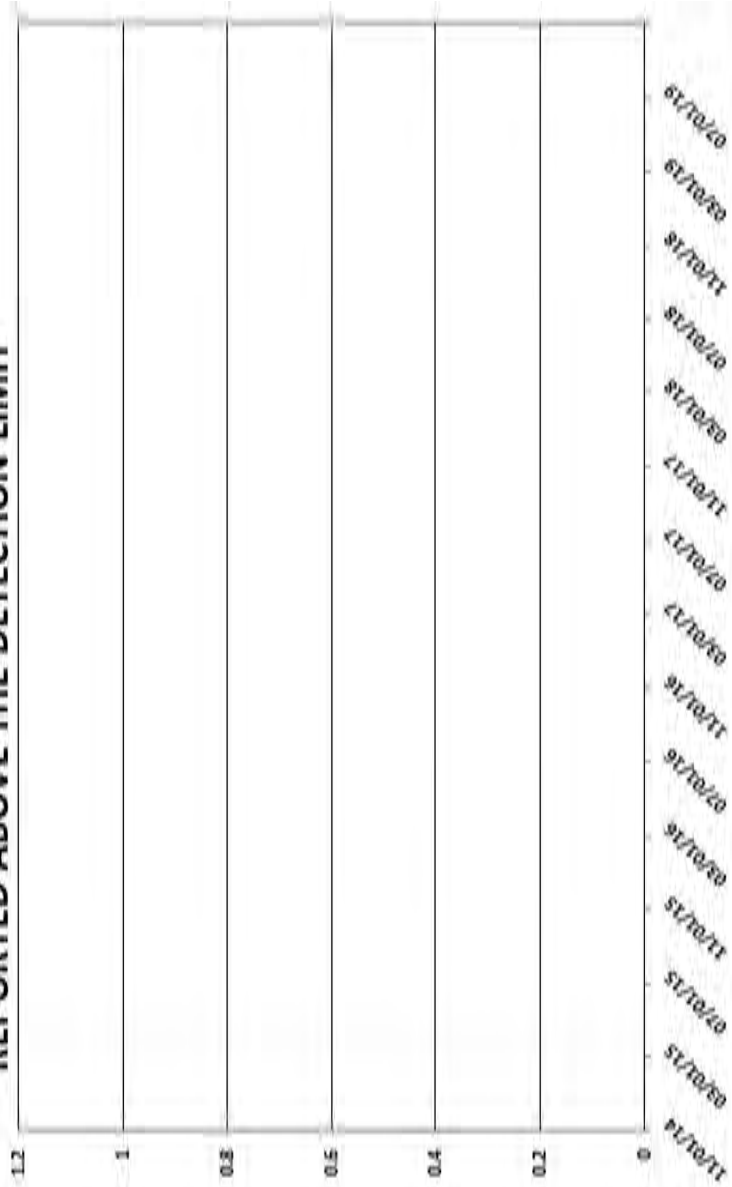




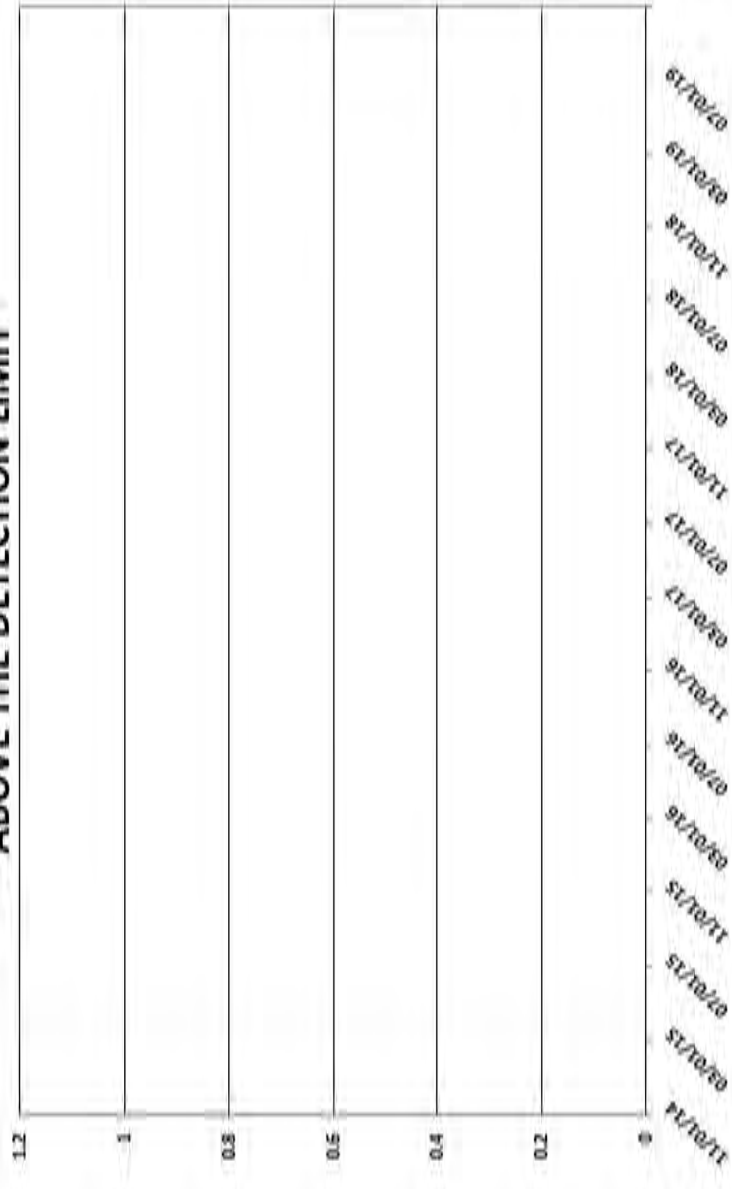
MKTF-44 BENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



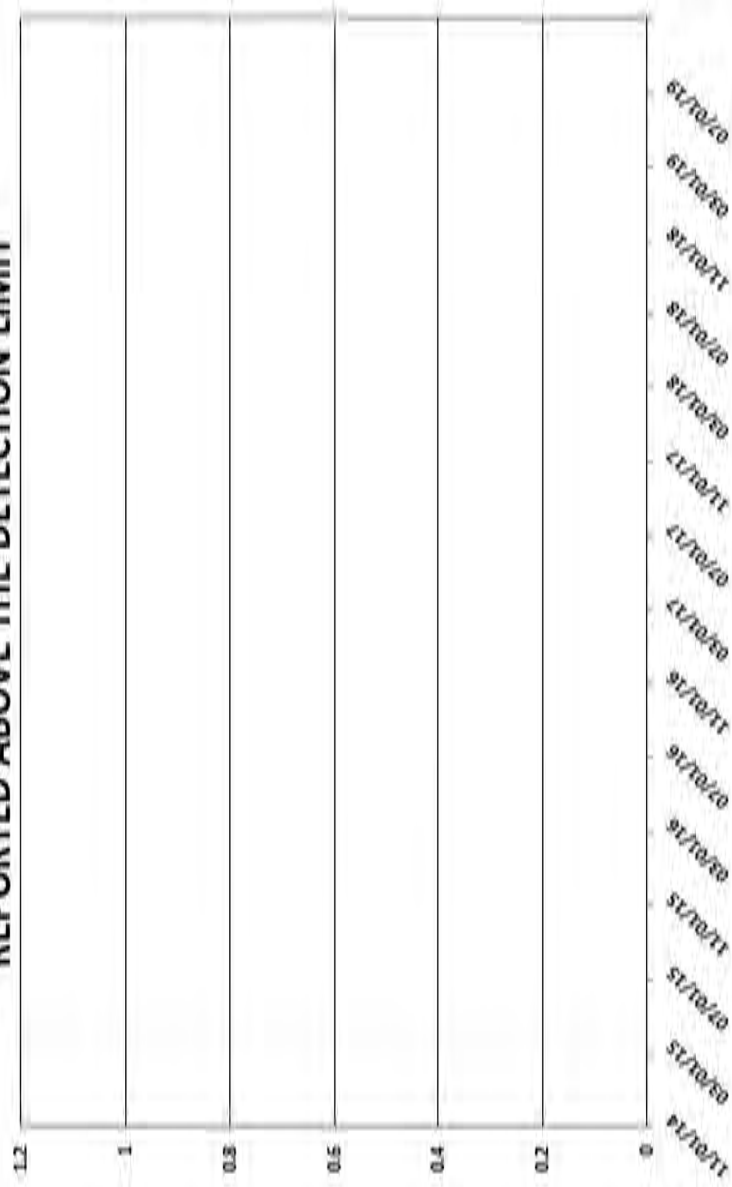
MKTF-44 TOLUENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-44 MTBE - NO CONCENTRATIONS REPORTED  
ABOVE THE DETECTION LIMIT



MKTF-44 ETHYLBENZENE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MKTF-44 TOTAL XYLENES - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





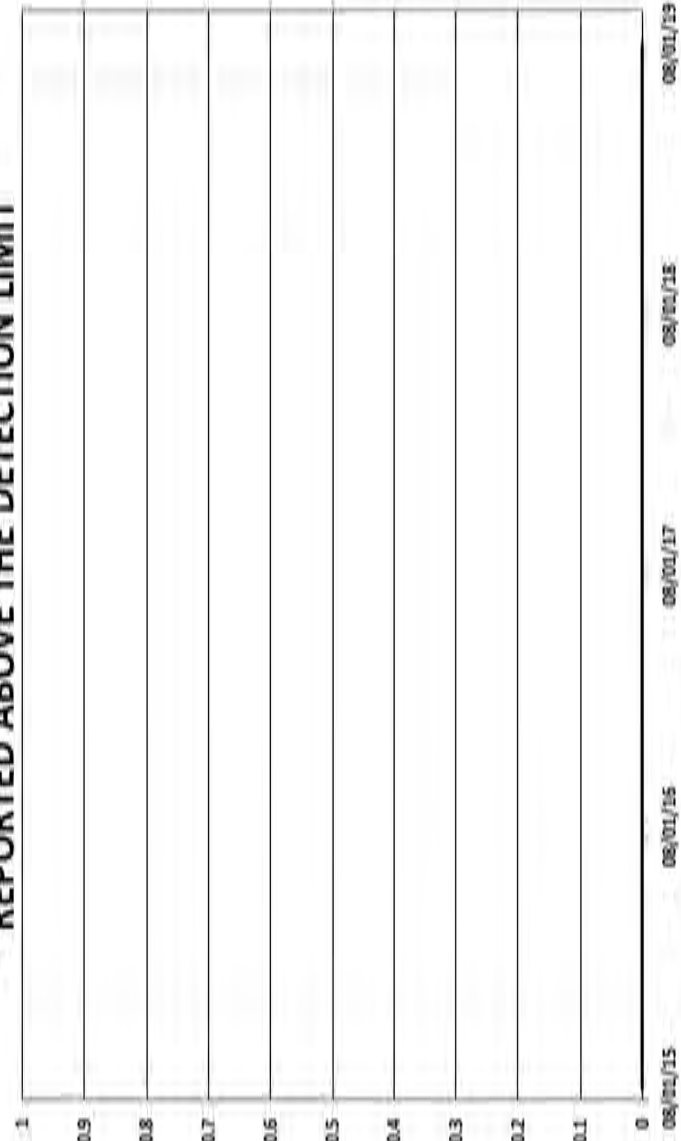
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Fax: 307.745.7723

BTEX & MTBE THROUGH 2019 - WELL MKTF-44		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

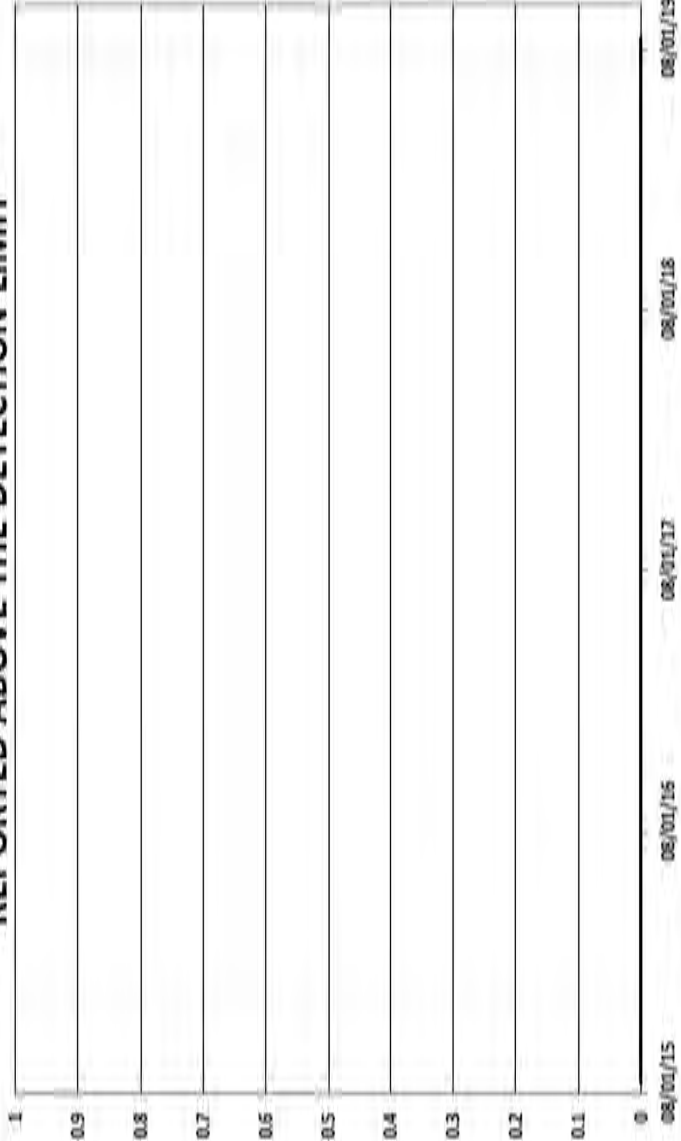
FIGURE 18.34



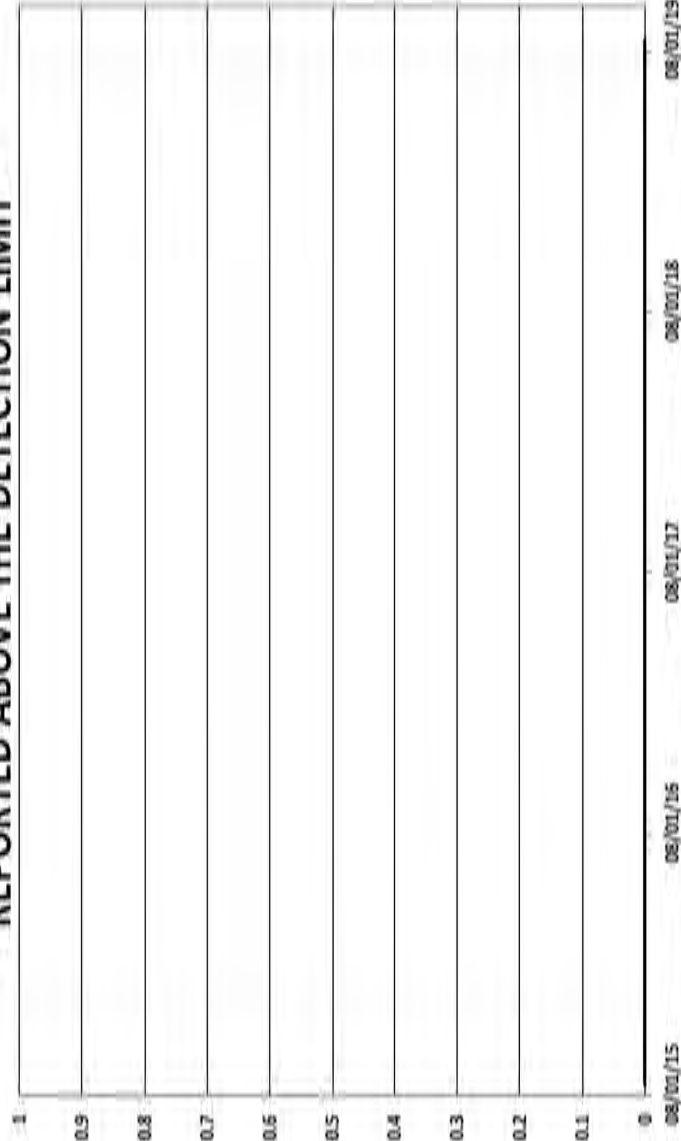
BW-1C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



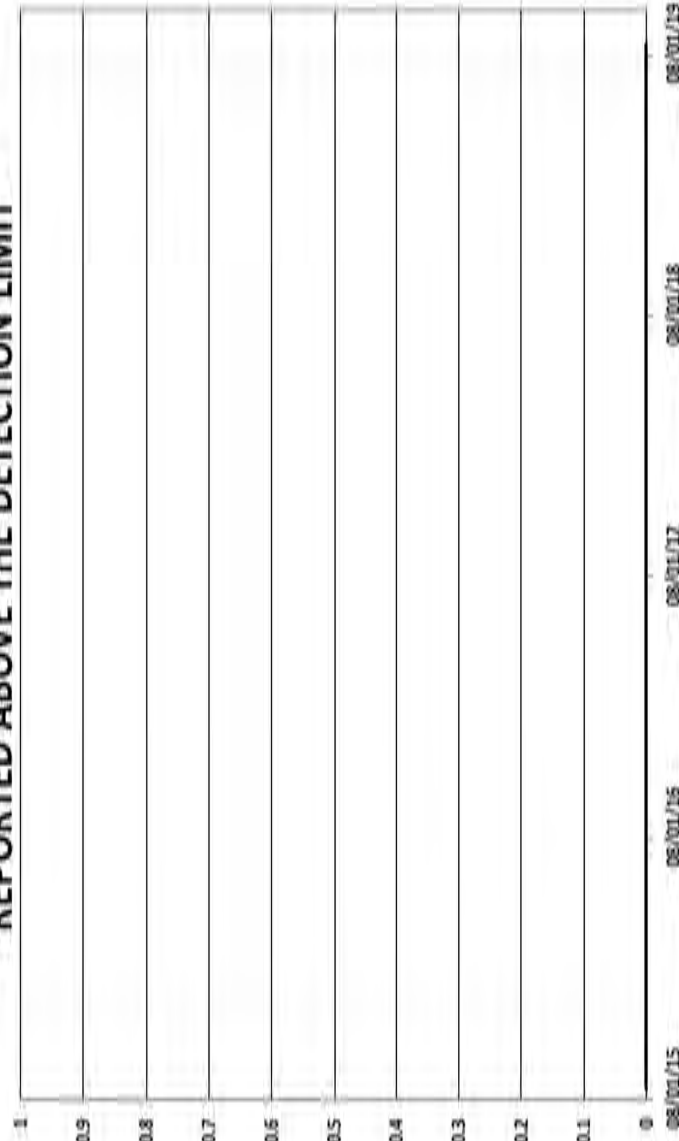
BW-1C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



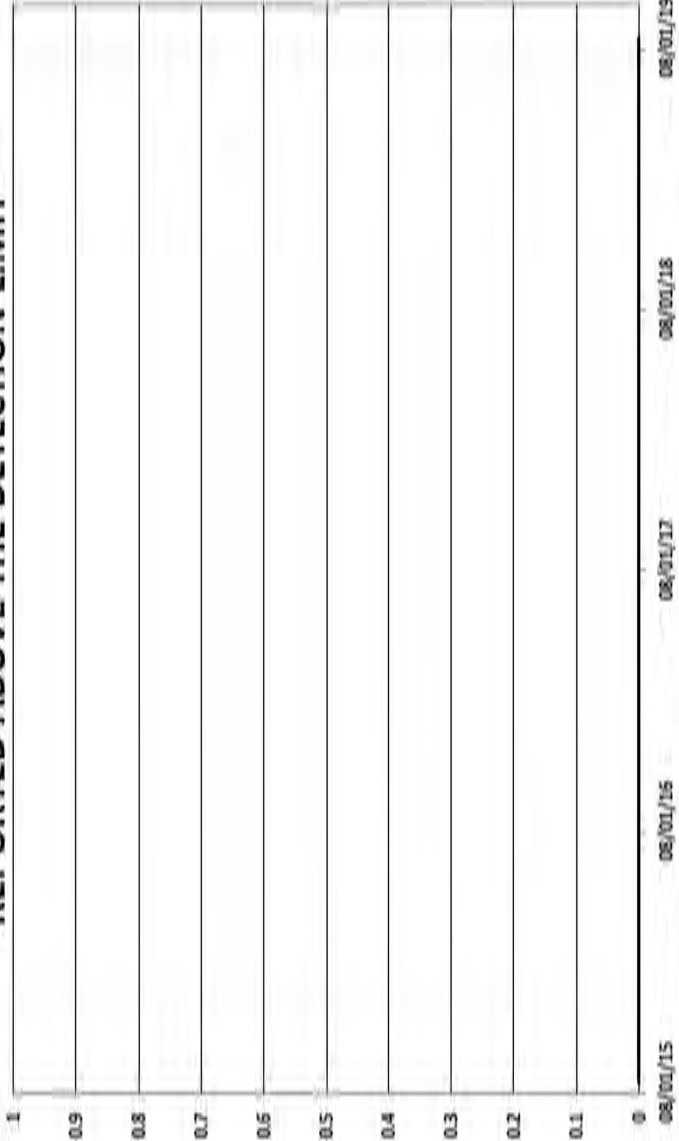
BW-1C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-1C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-1C BTEX & MTBE - NO CONCENTRATIONS  
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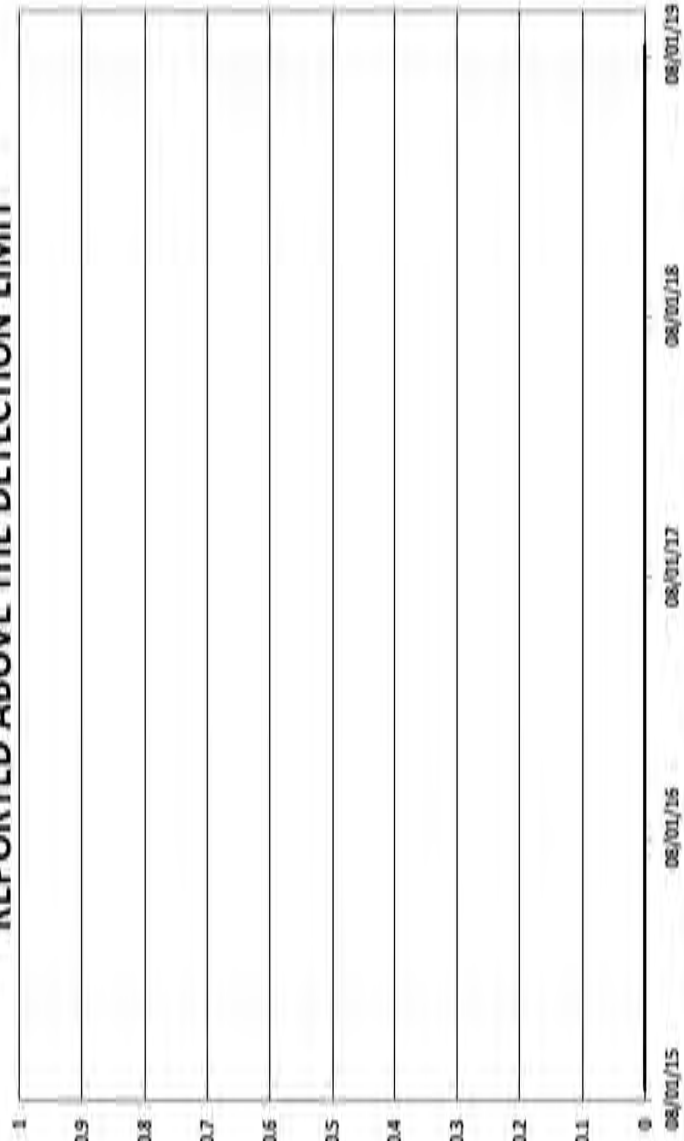
FIGURE 19.1

BTEX & MTBE THROUGH 2019 - WELL BW-1C

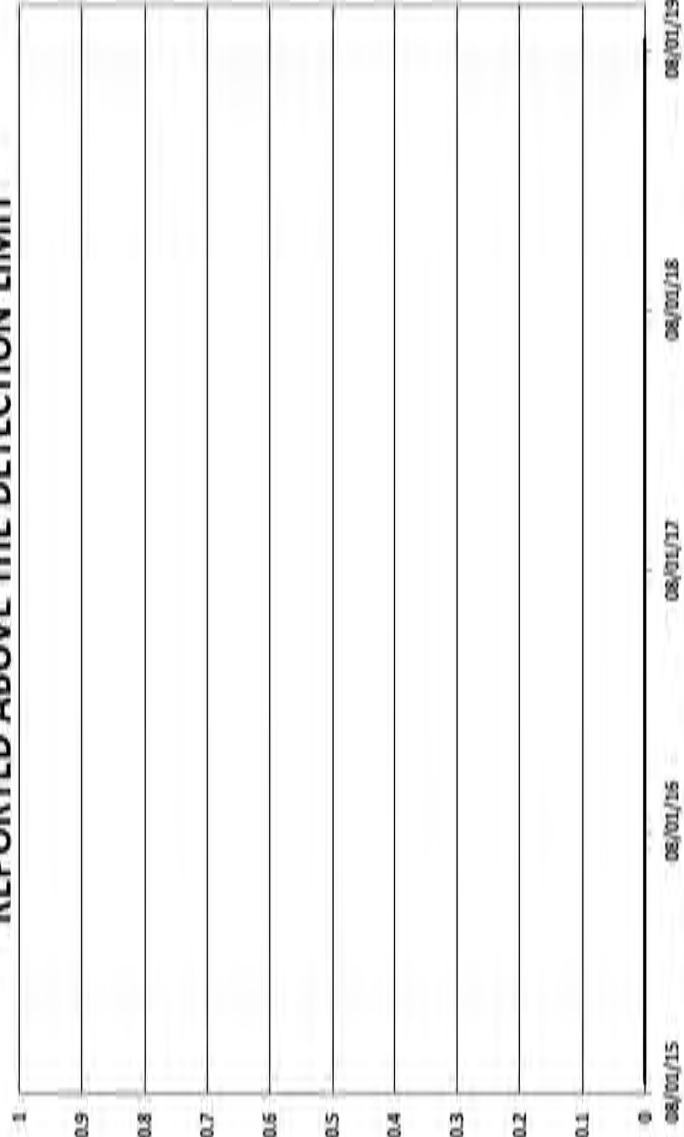
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
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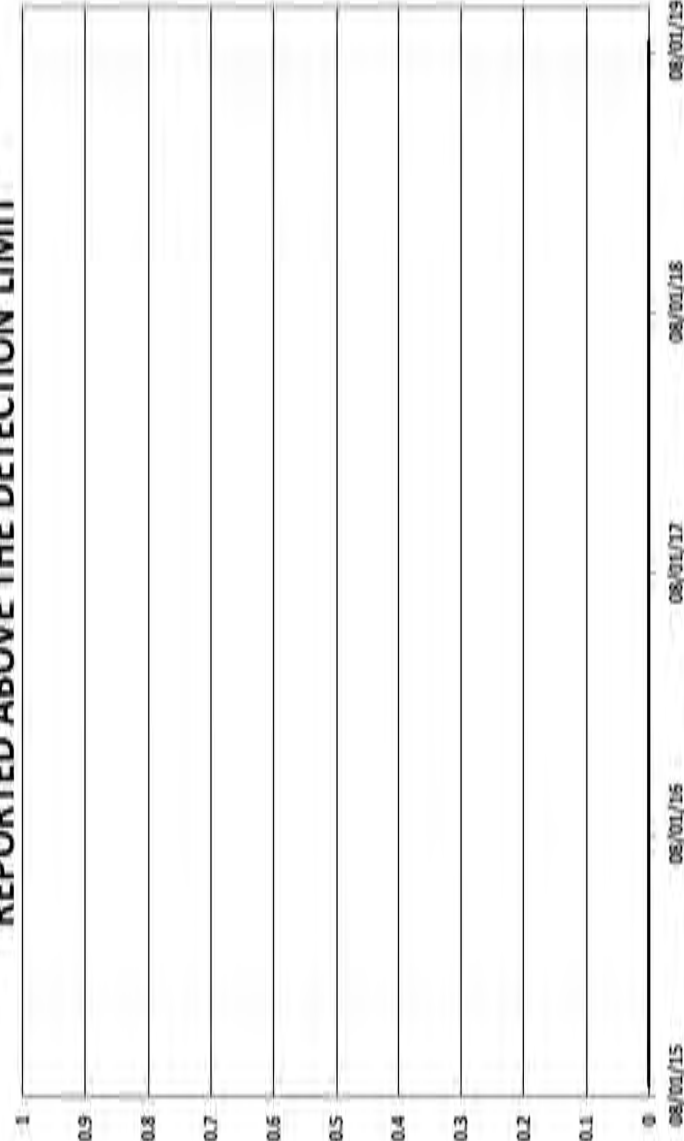
BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



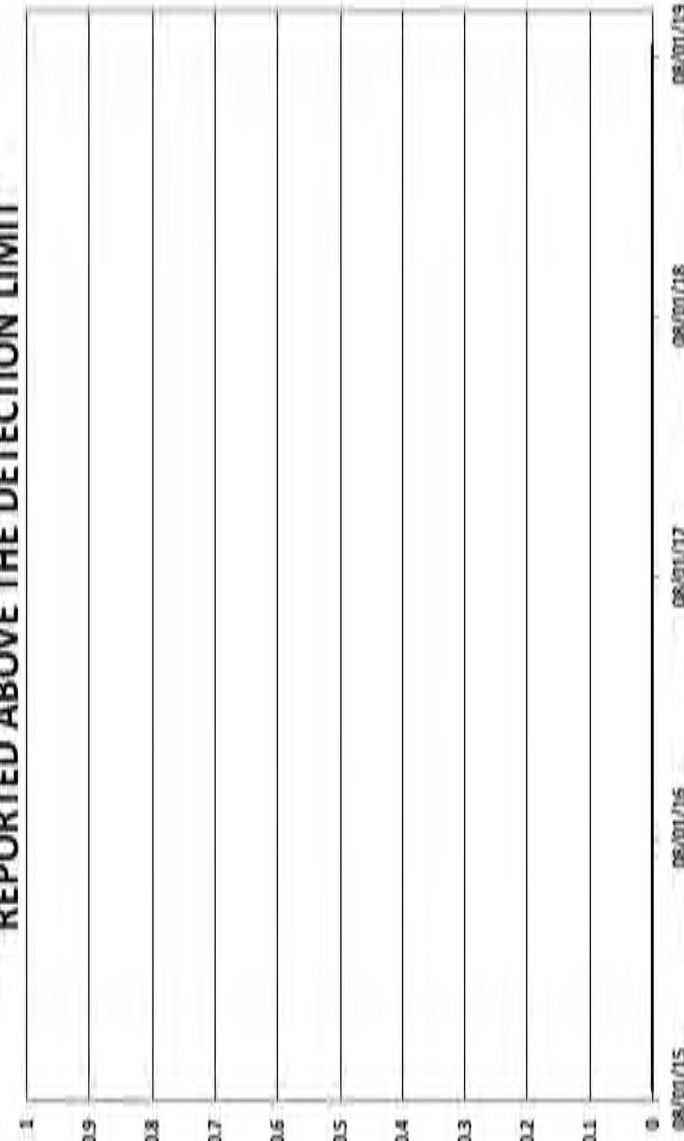
BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



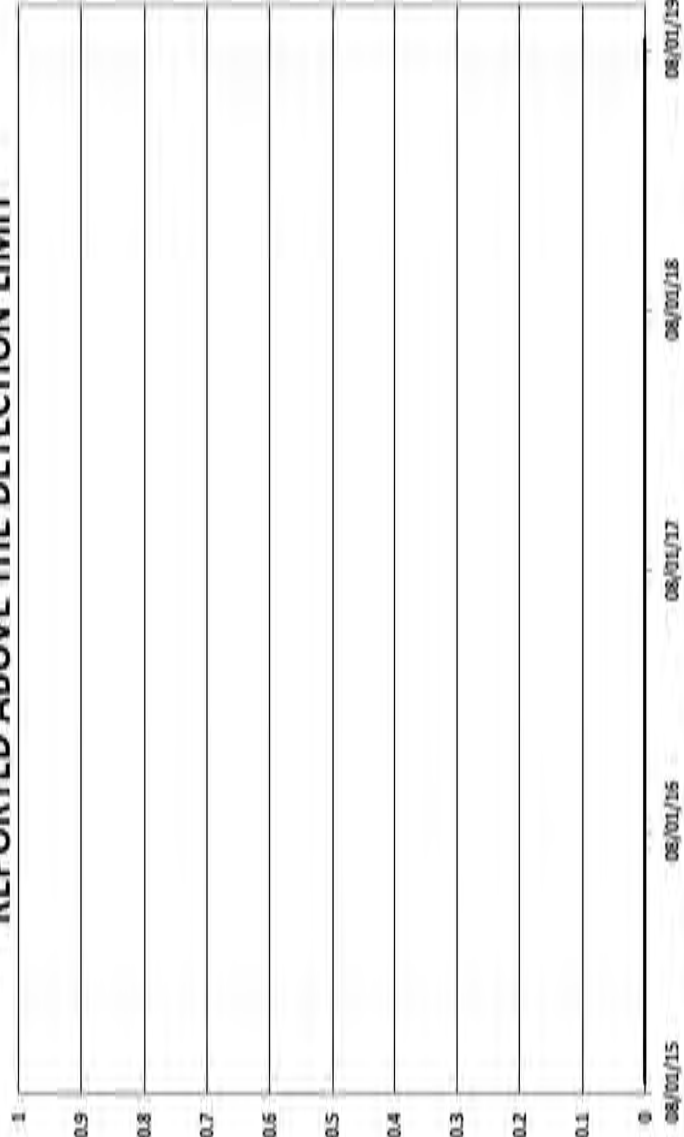
BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2A BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



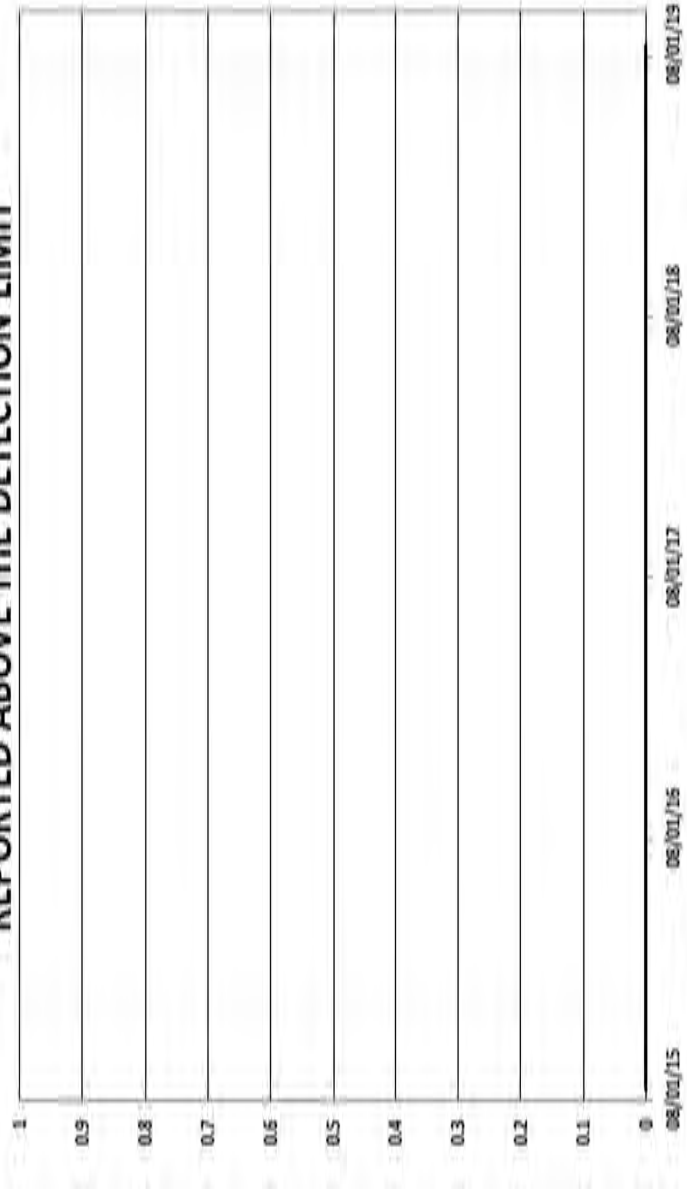
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FIGURE 19.2

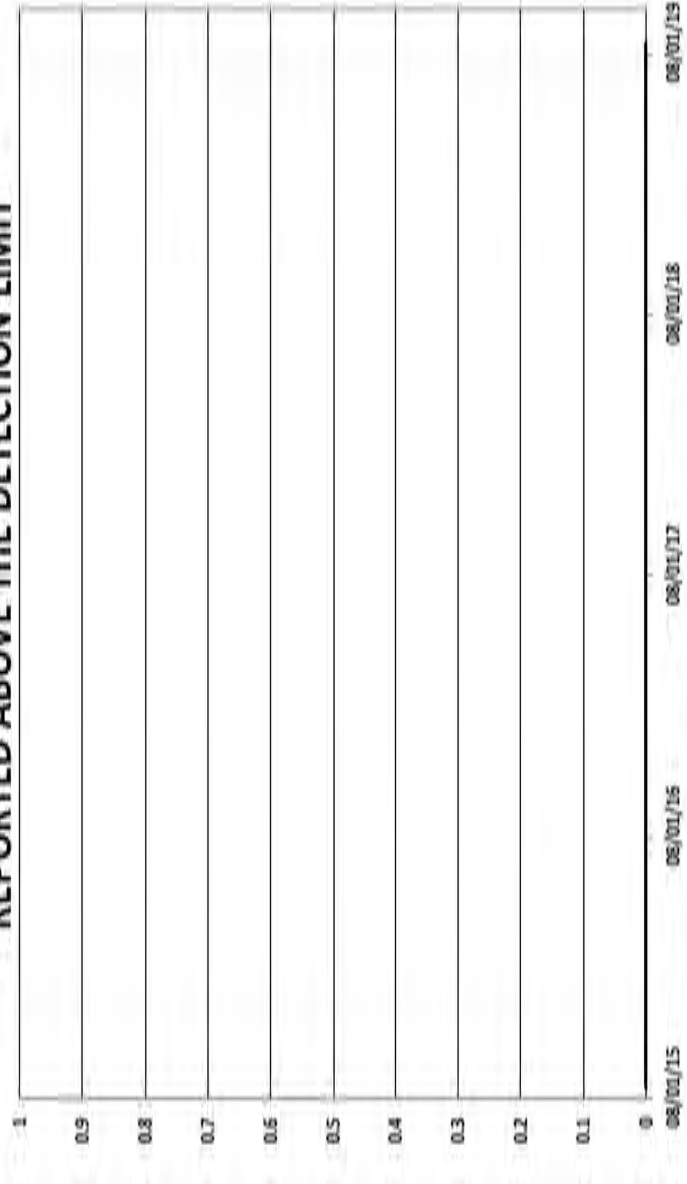
BTEX & MTBE THROUGH 2019 - WELL BW-2A  
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



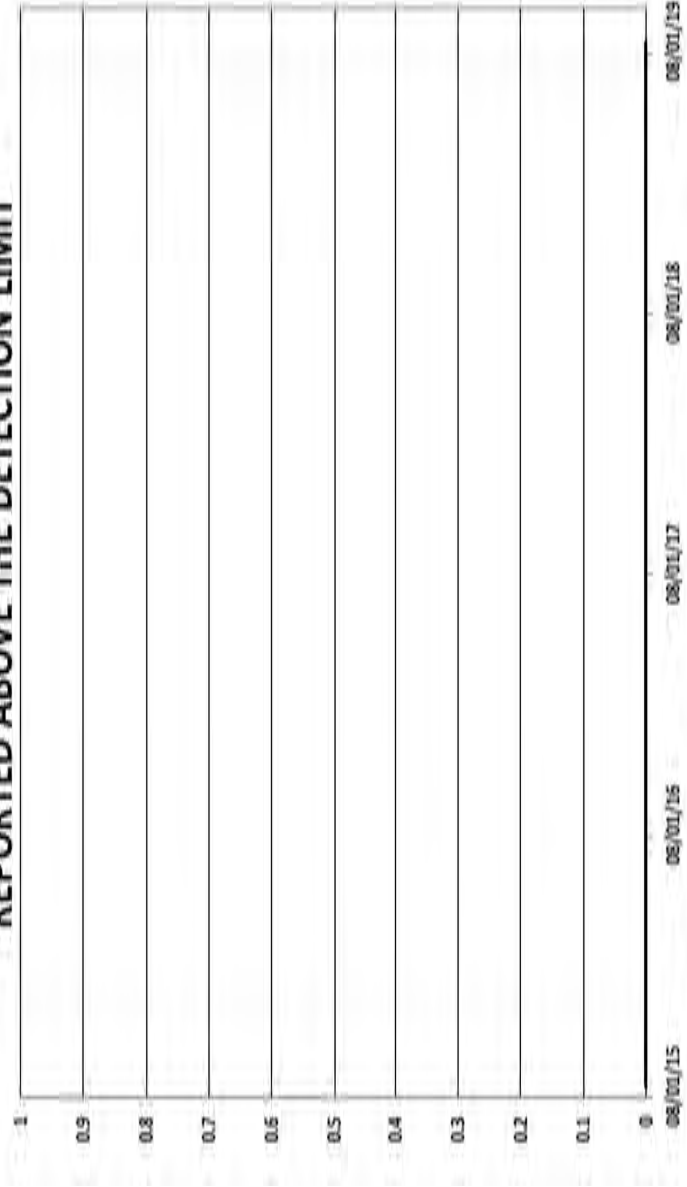
BW-2B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



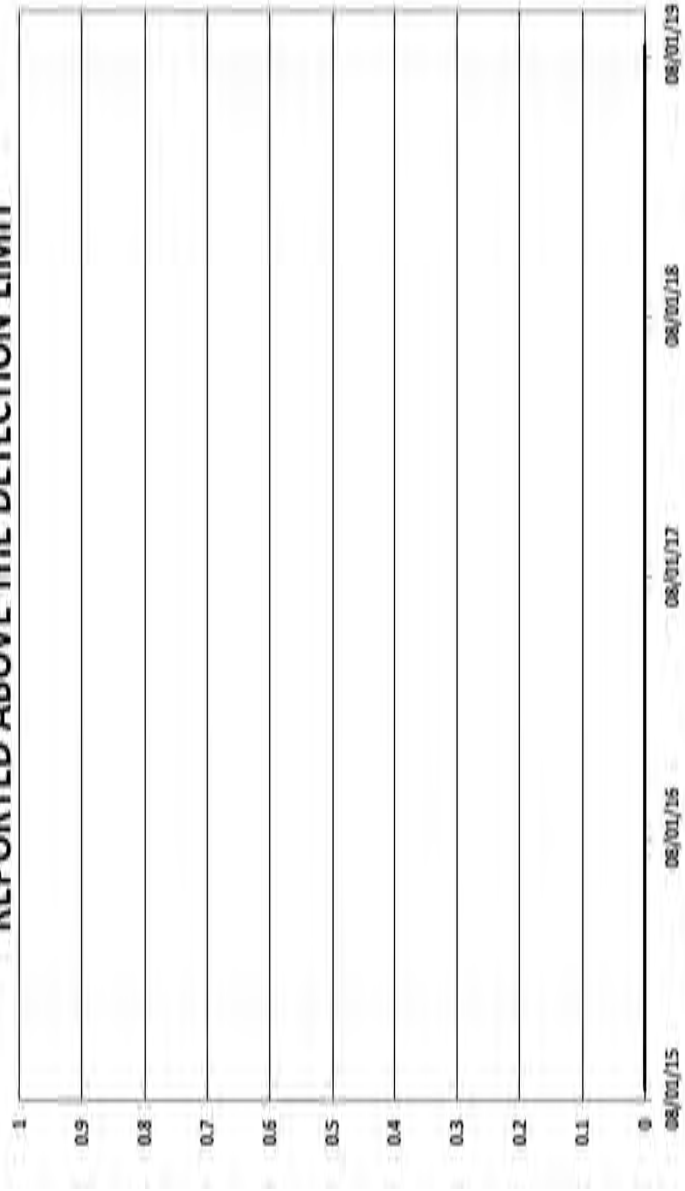
BW-2B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



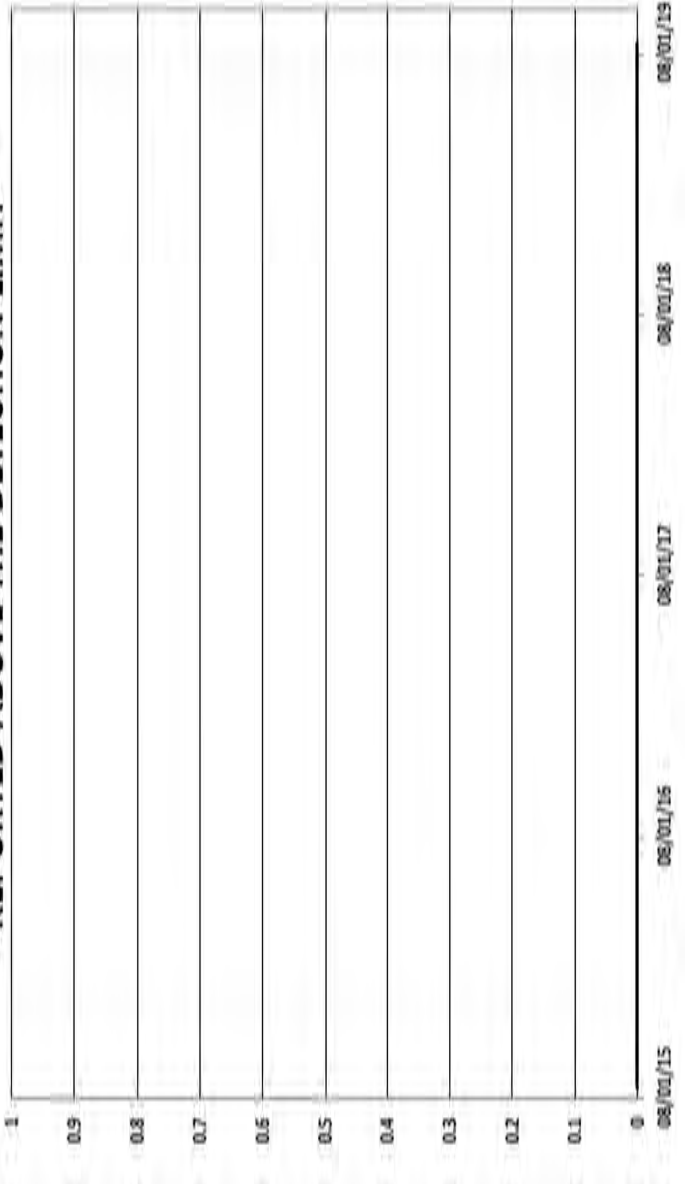
BW-2B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





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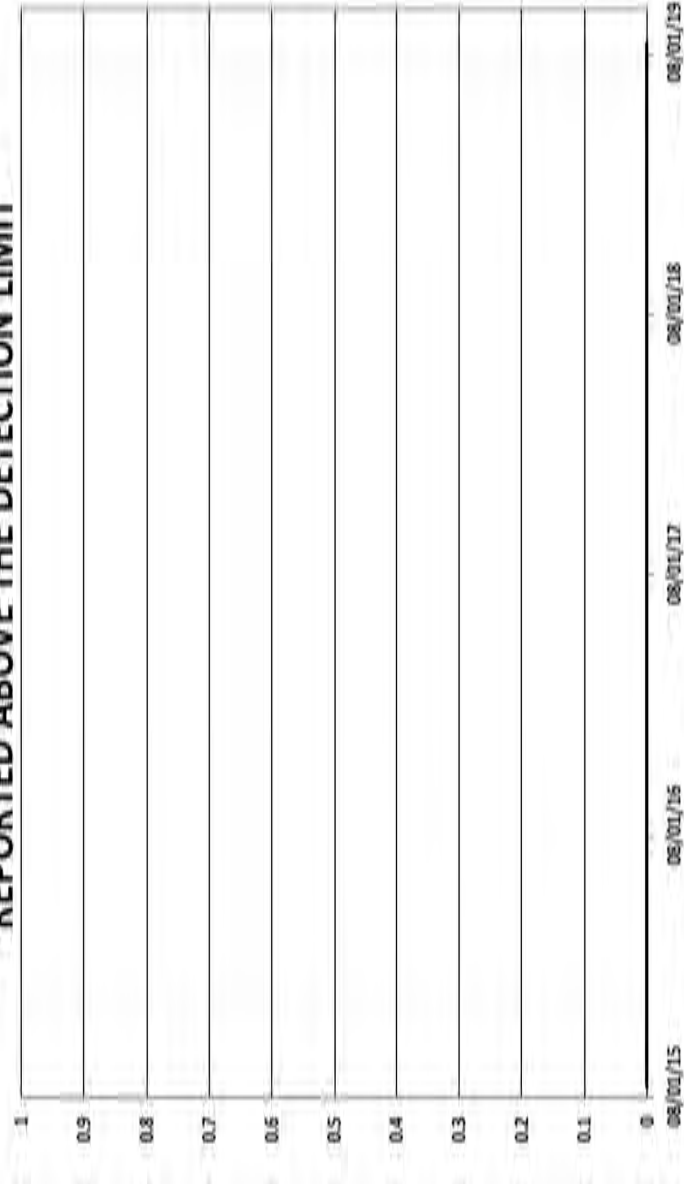
FIGURE 19.3

BTEX & MTBE THROUGH 2019 - WELL BW-2B

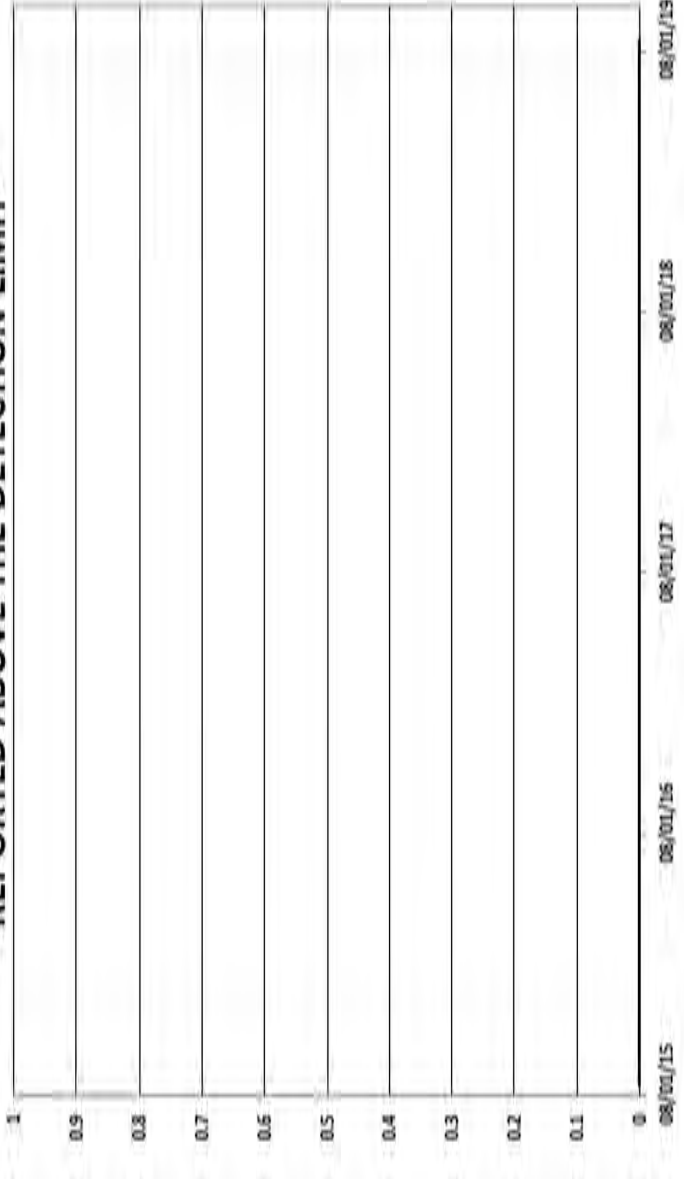
GROUNDWATER MONITORING 2019  
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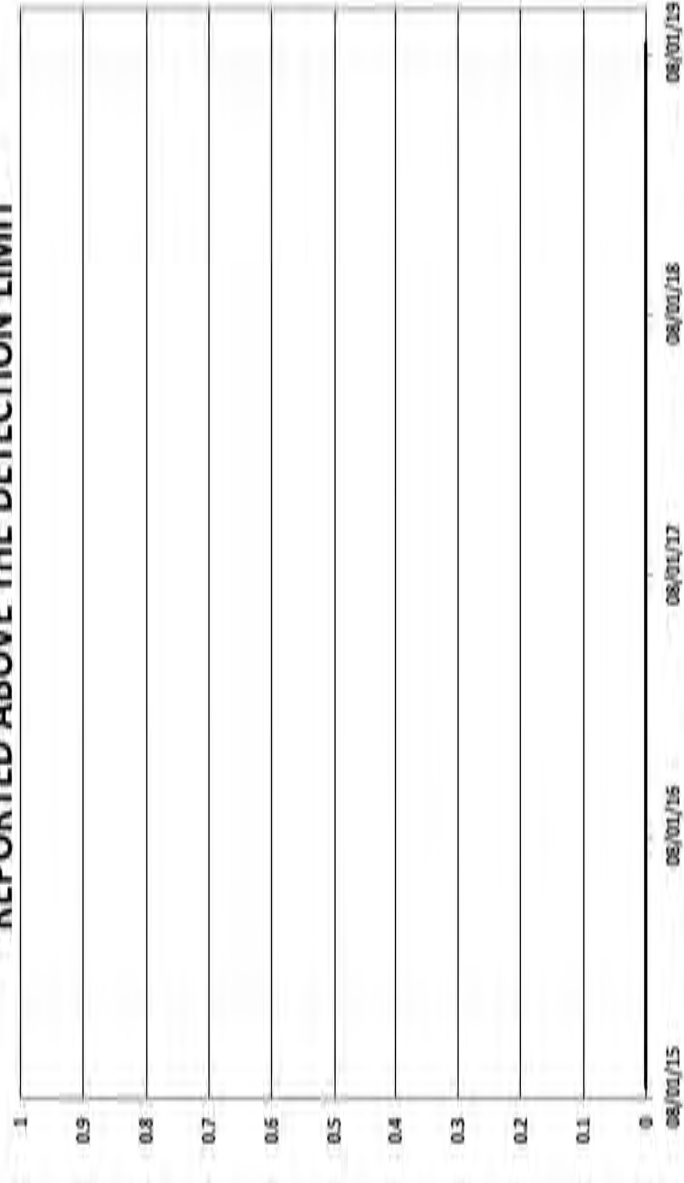
BW-2C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



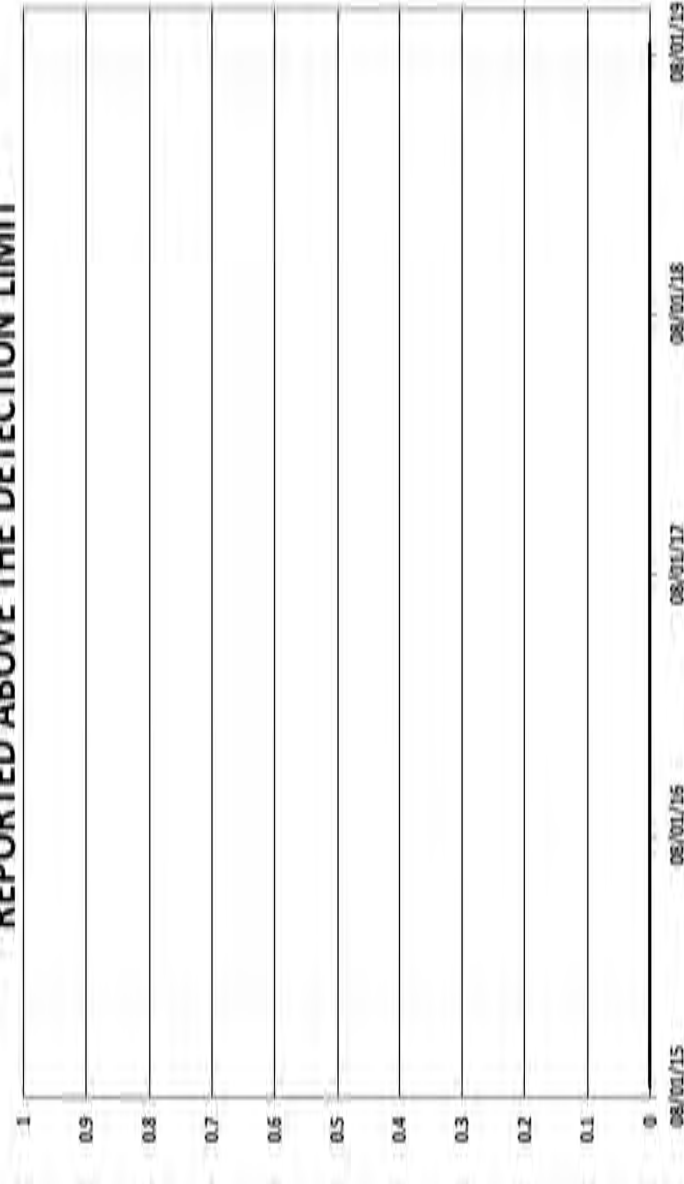
BW-2C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



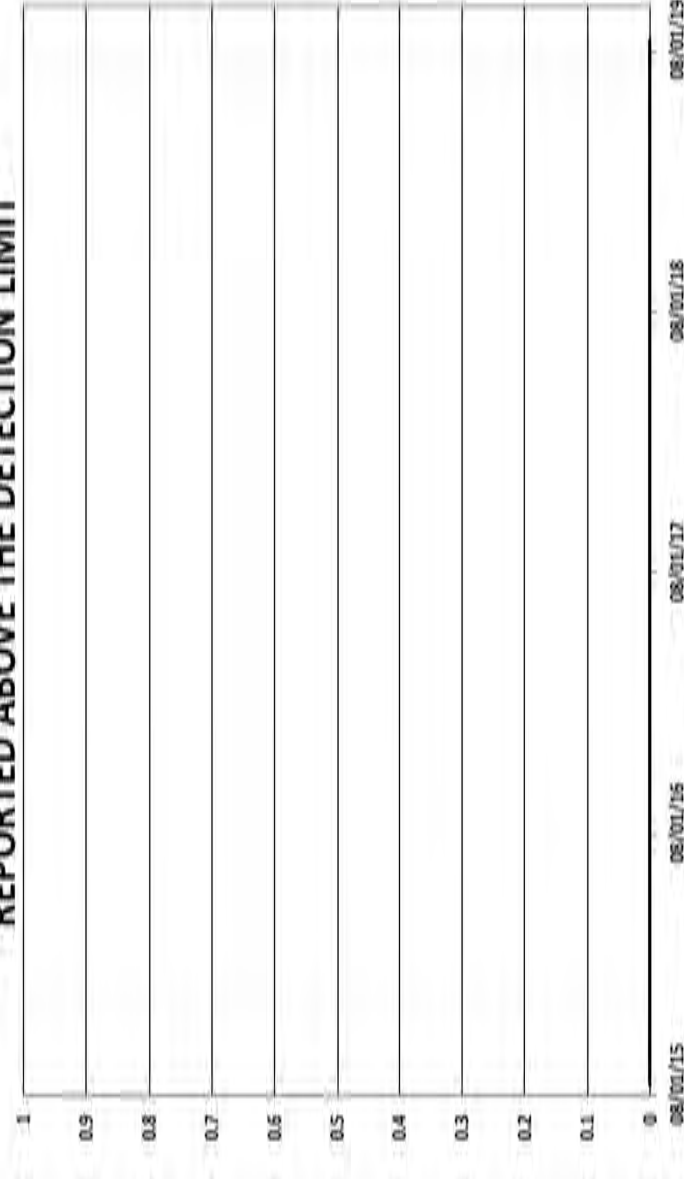
BW-2C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-2C BTEX & MTBE - NO CONCENTRATIONS  
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**FIGURE 19.4**

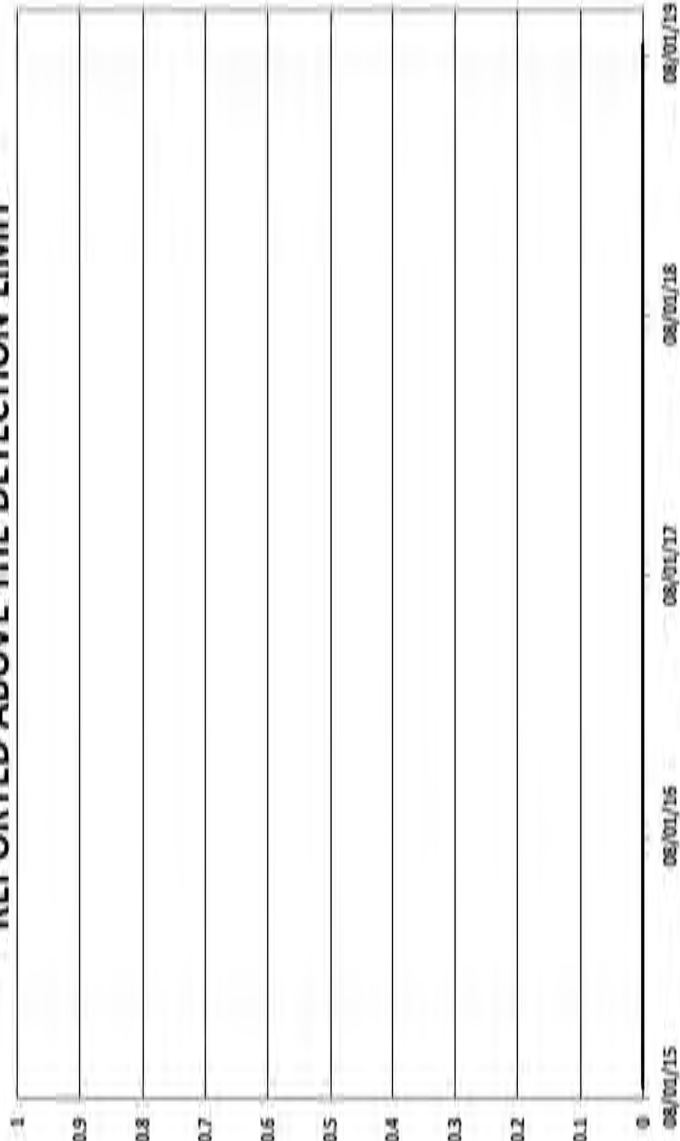
**BTEX & MTBE THROUGH 2019 - WELL BW-2C**

**GROUNDWATER MONITORING 2019**  
**MARATHON PETROLEUM CORP.**  
**GALLUP, NEW MEXICO**

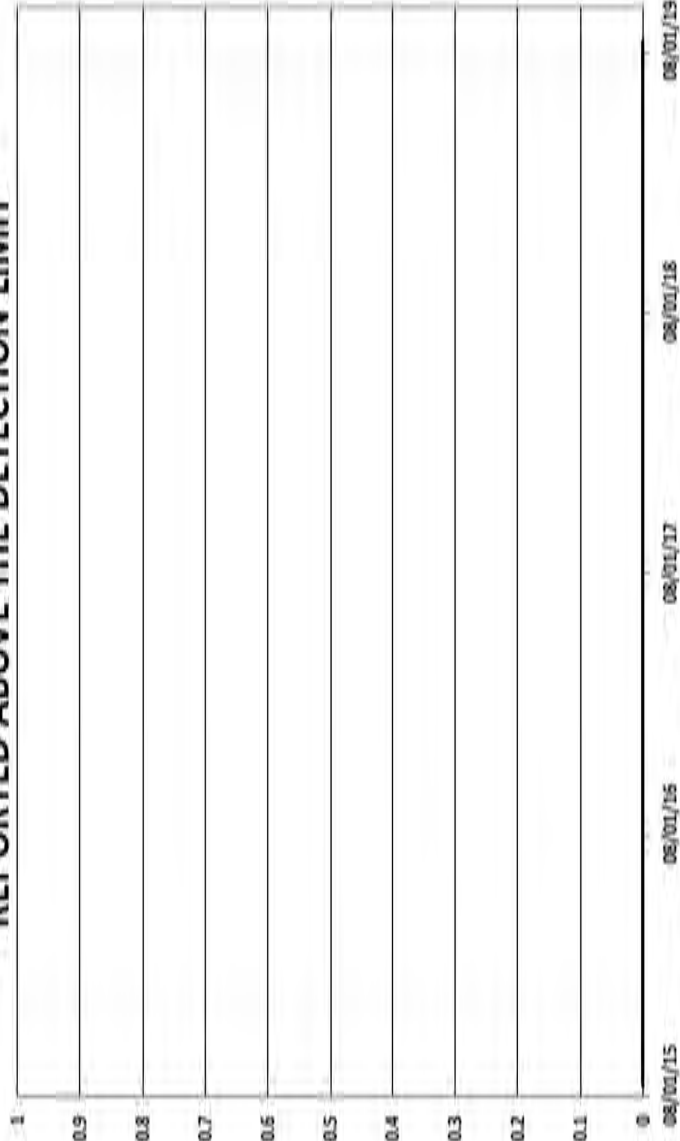
Drawn By: REP    Checked By: BM    Date: 9/15/2020    File: 697-GWMON-2019-FIGS-19.1-19.15



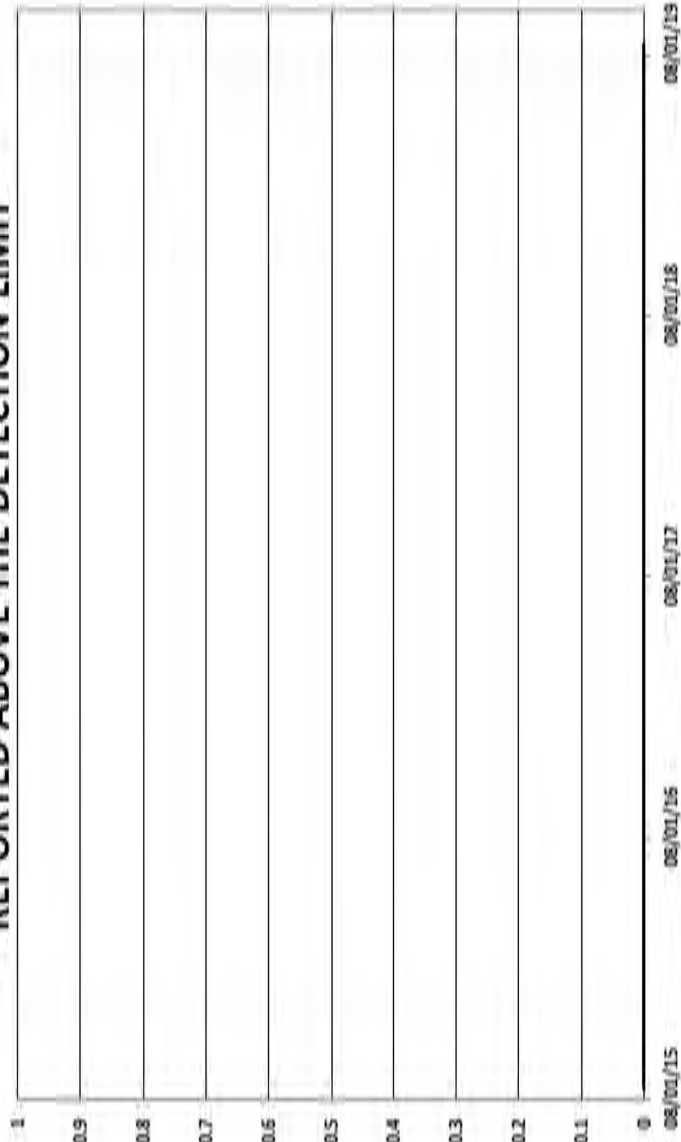
BW-3B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



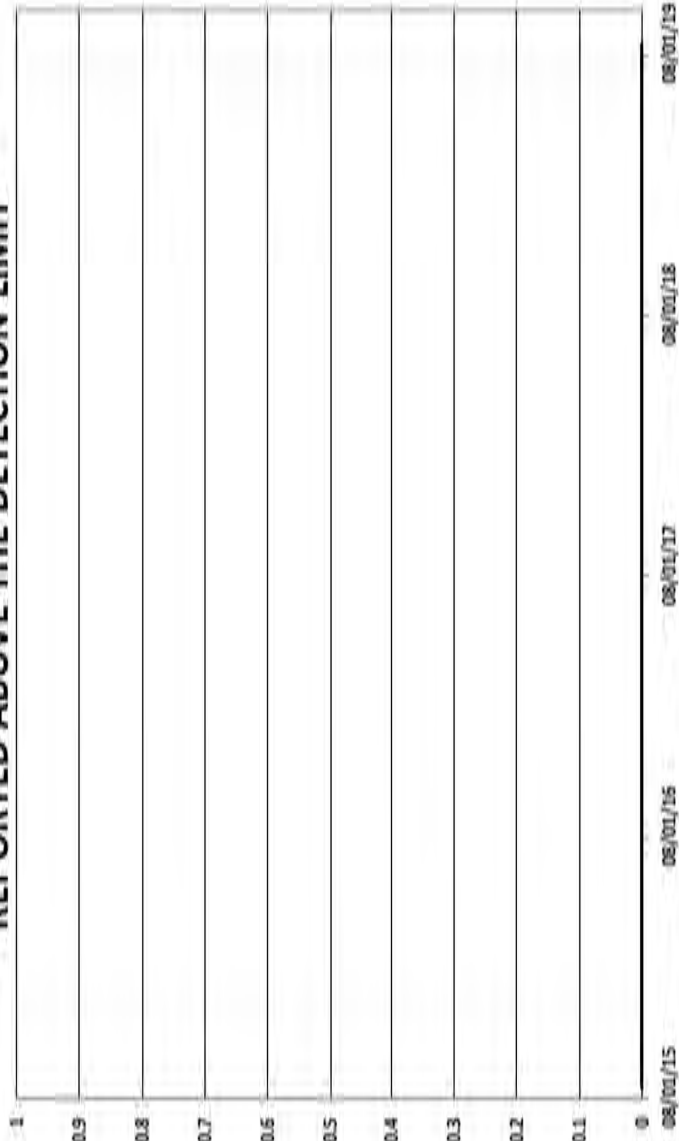
BW-3B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



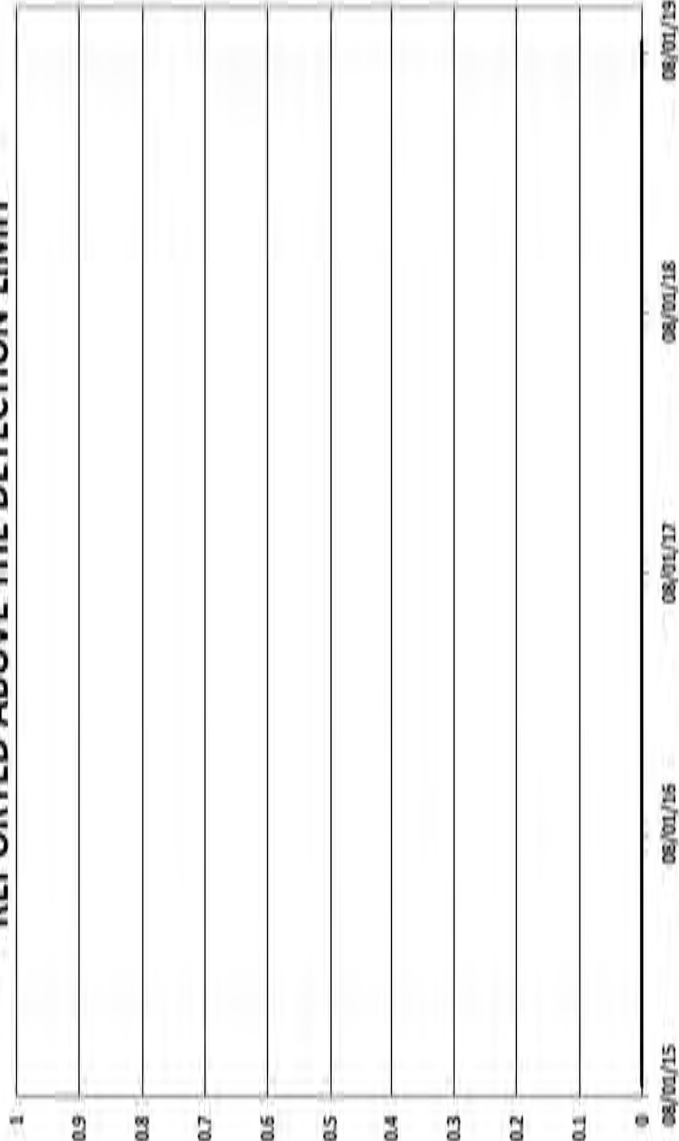
BW-3B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-3B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-3B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



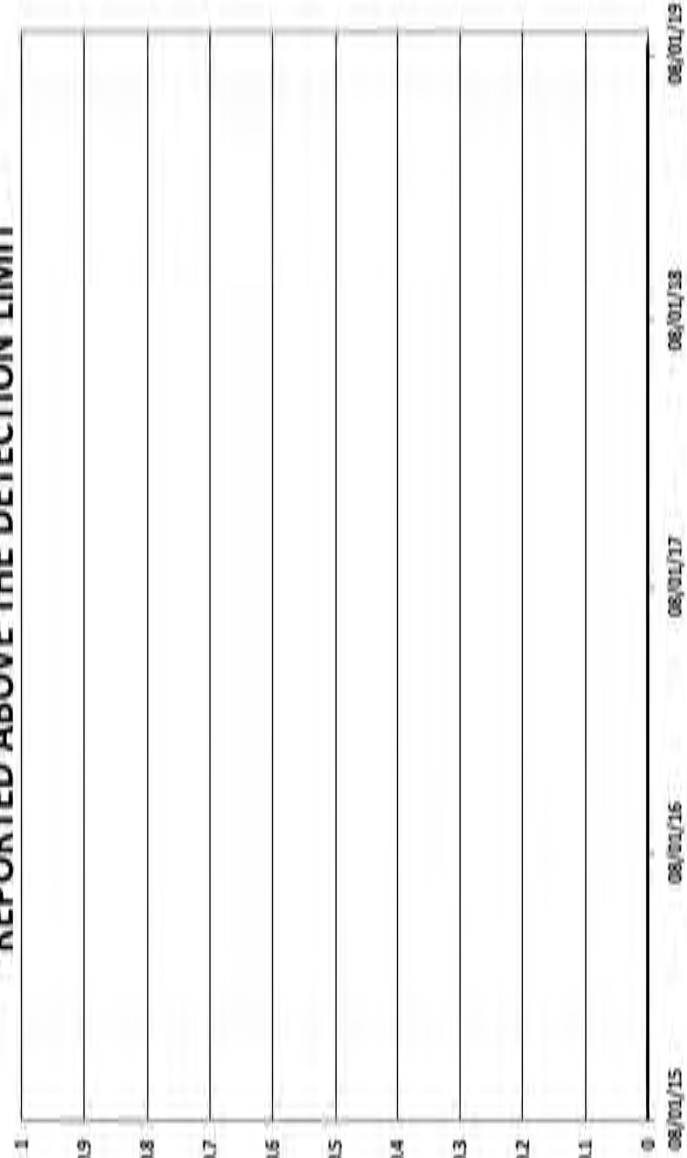
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FIGURE 19.5

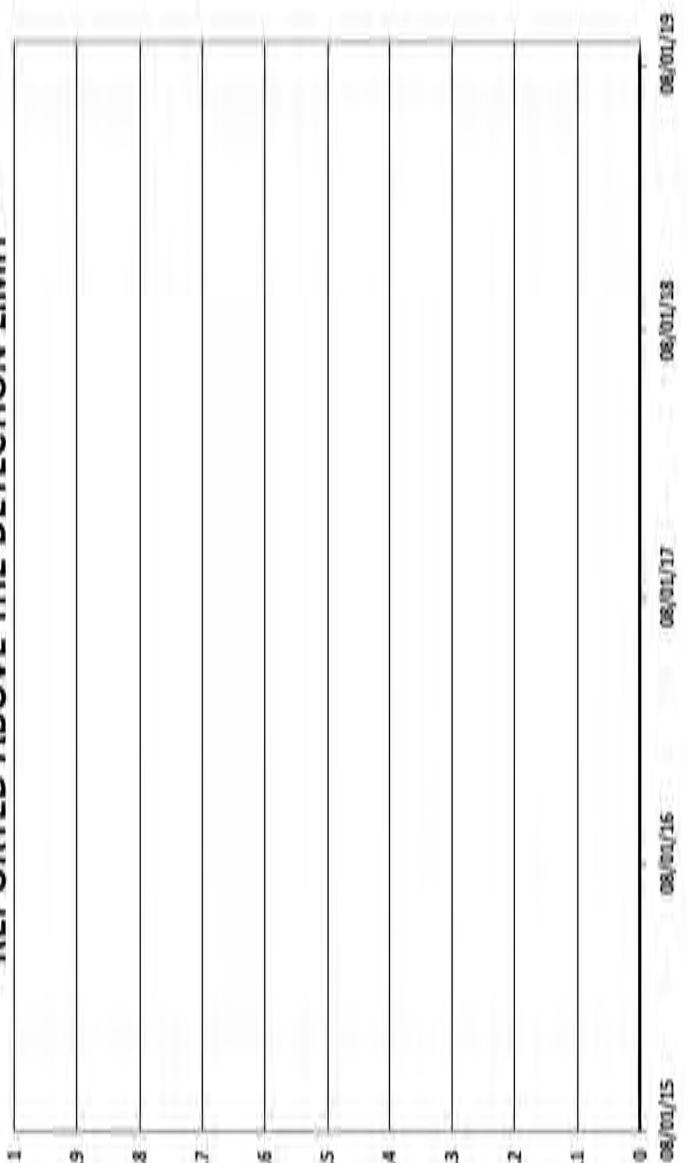
BTEX & MTBE THROUGH 2019 - WELL BW-3B  
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



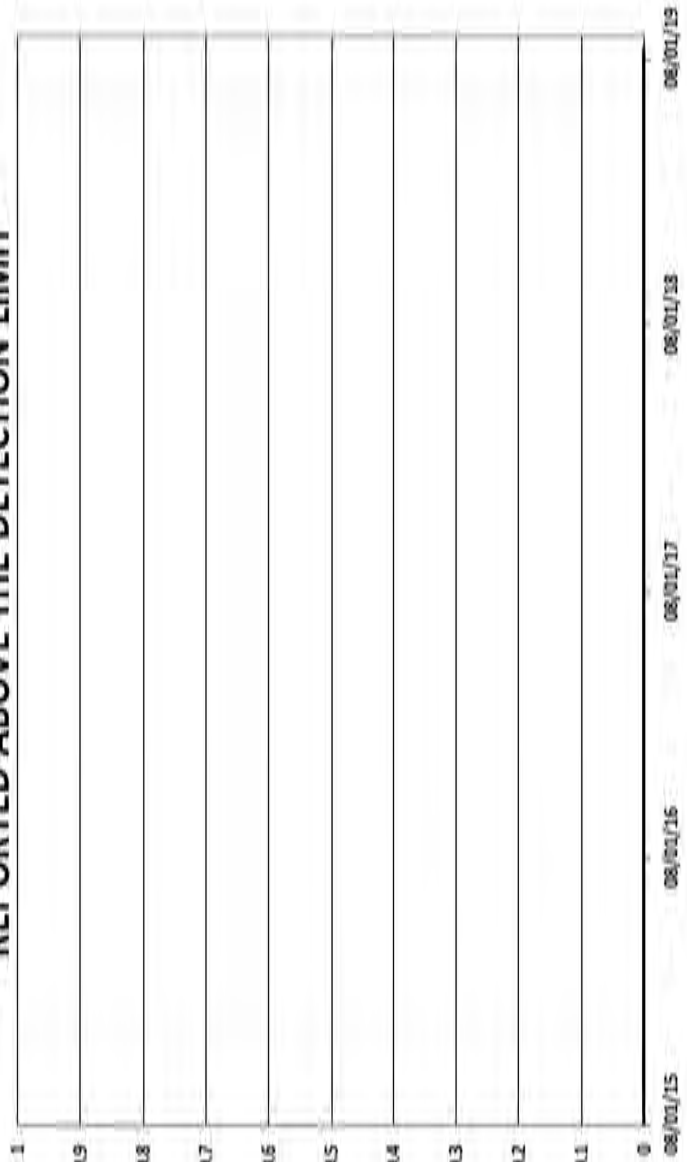
BW-3C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



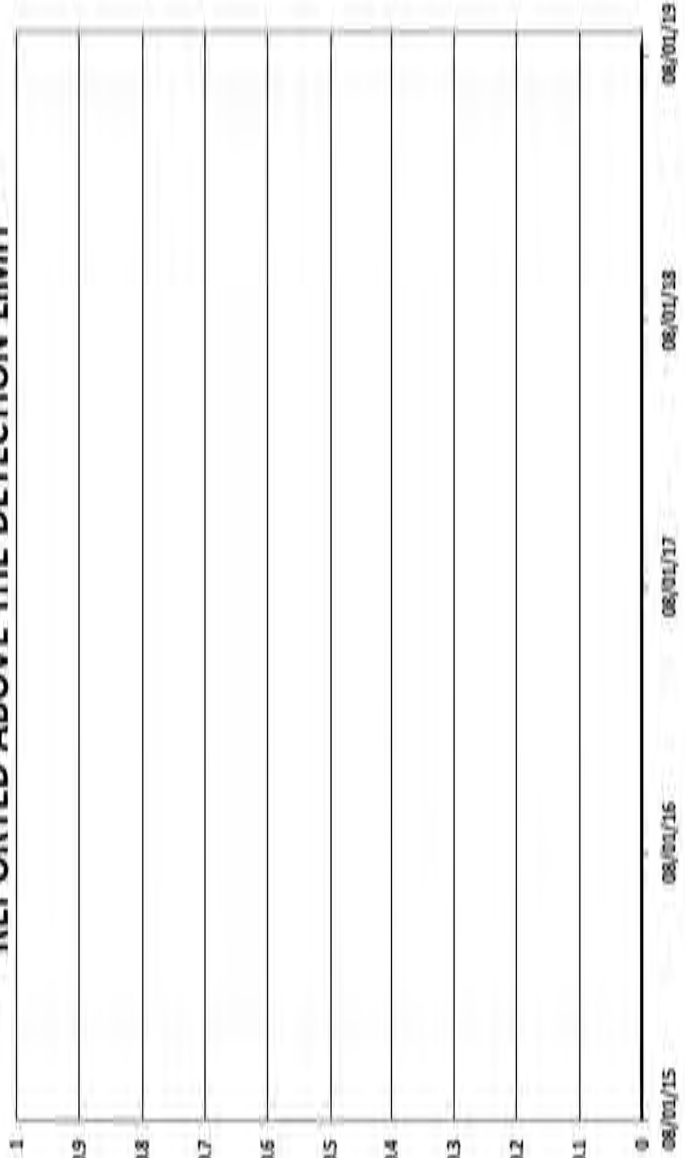
BW-3C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



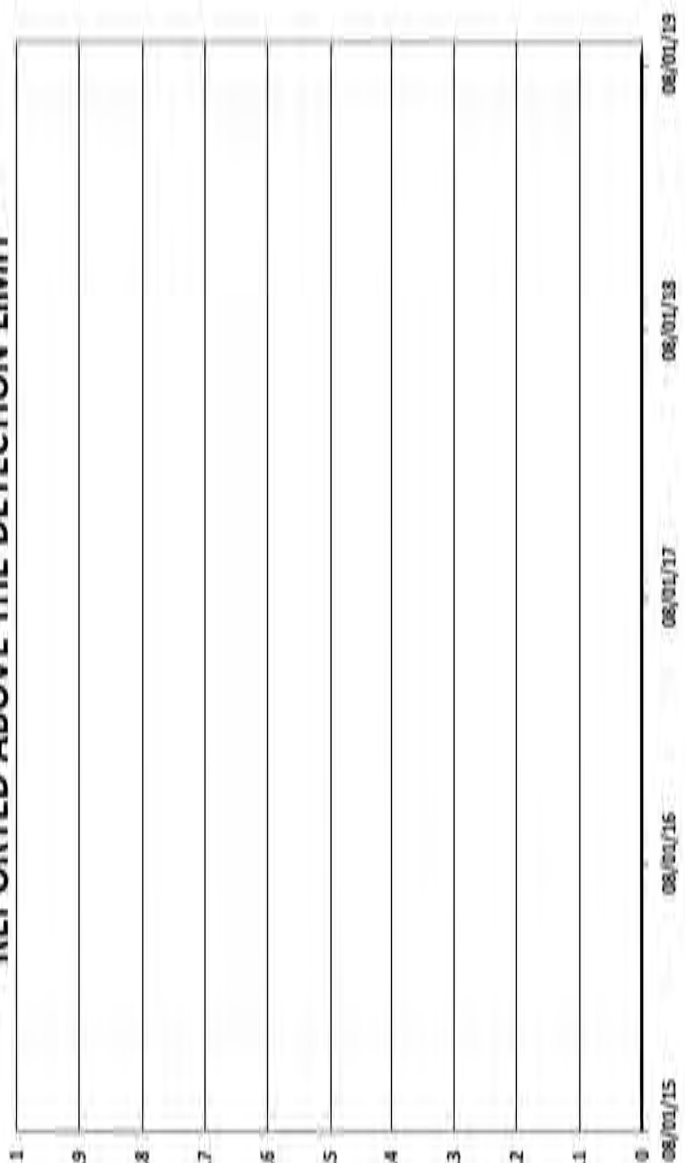
BW-3C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-3C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-3C BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



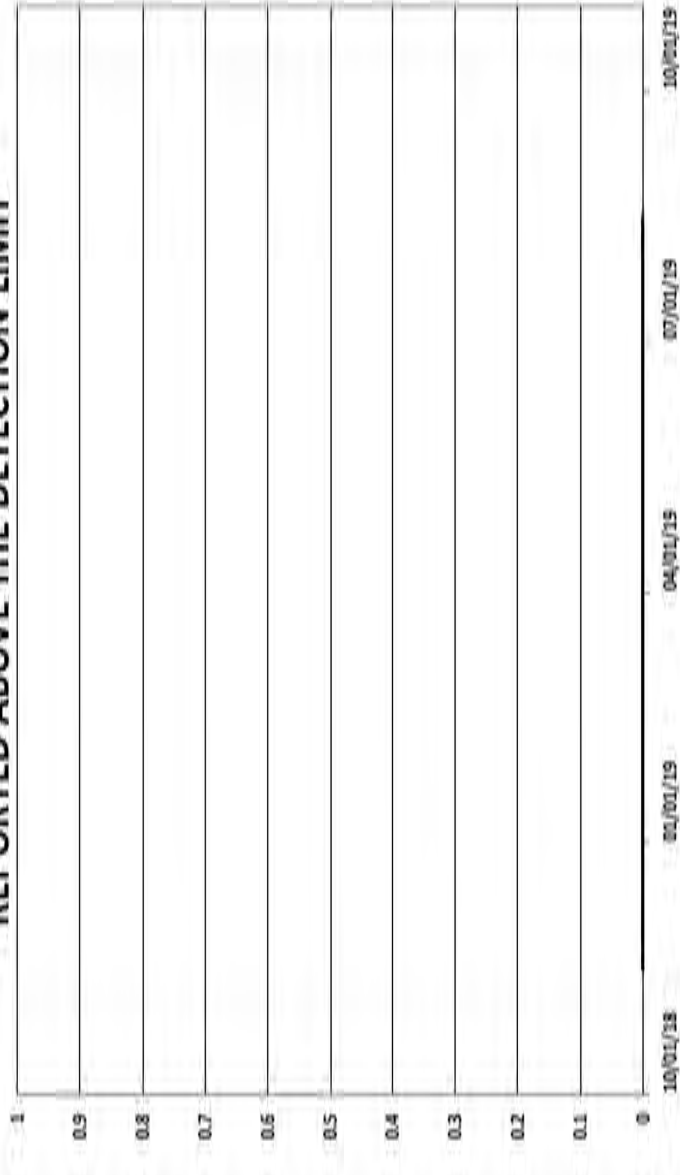
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FIGURE 19.6

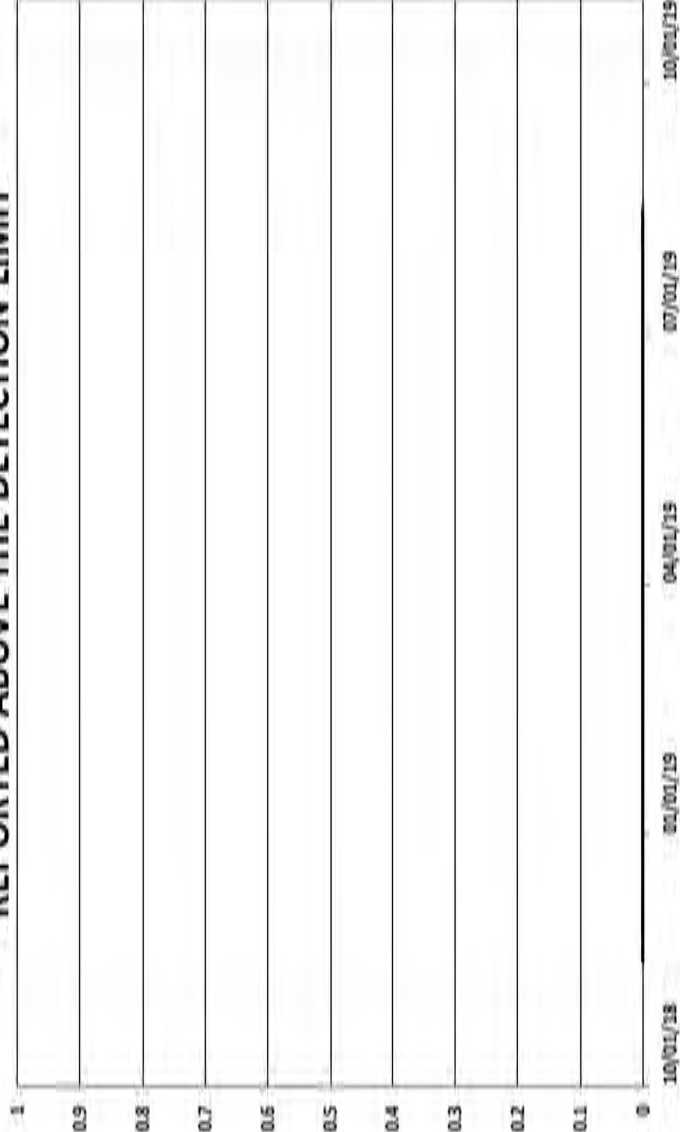
BTEX & MTBE THROUGH 2019 - WELL BW-3C  
GROUNDWATER MONITORING 2019  
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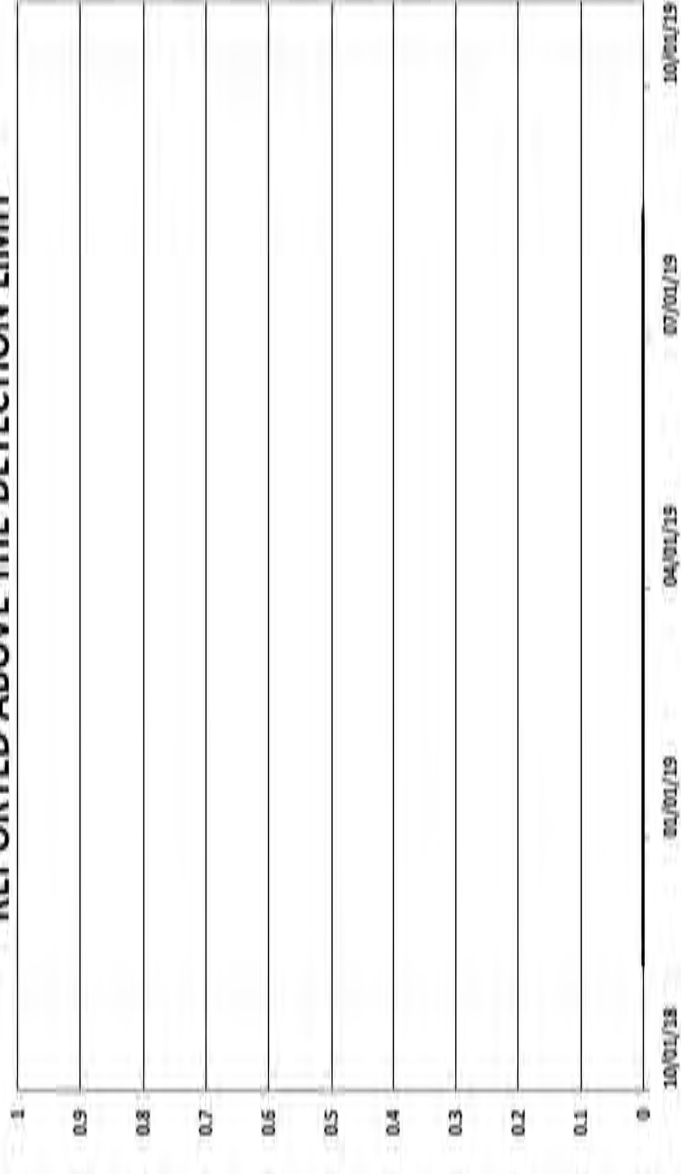
BW-4B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



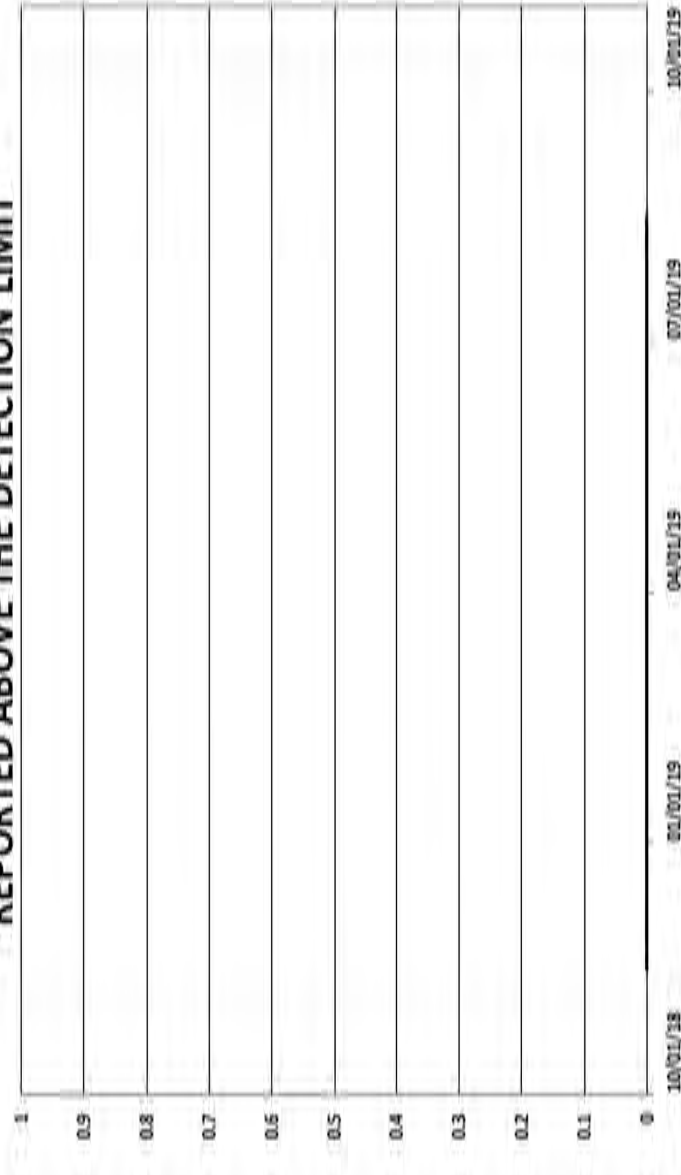
BW-4B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



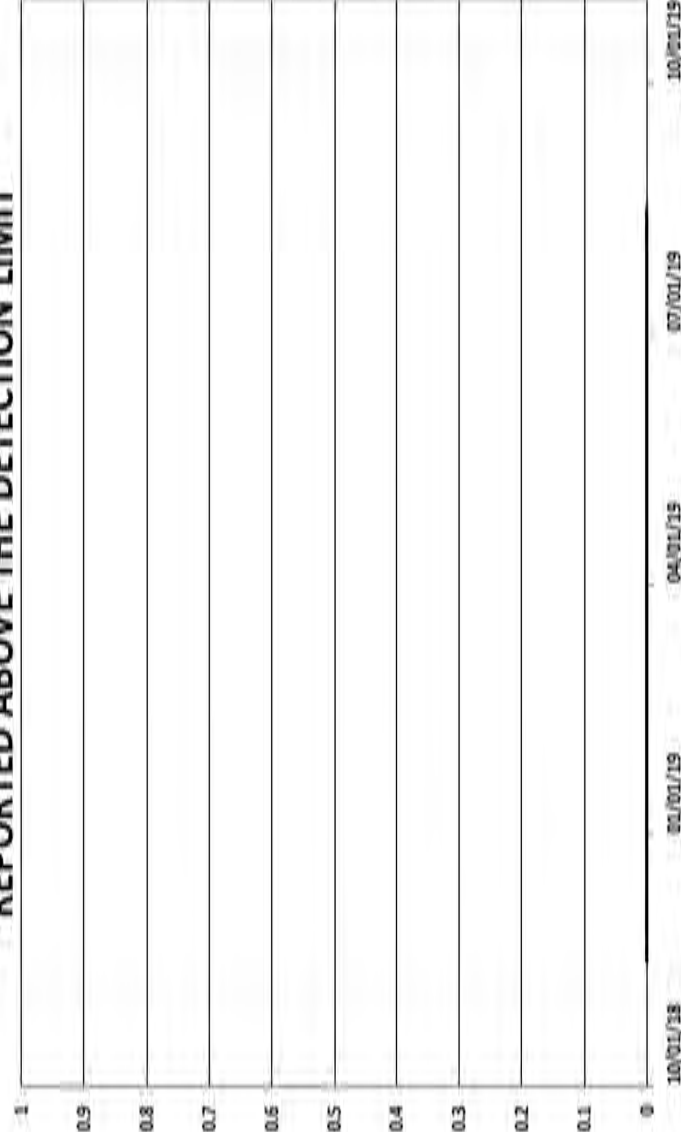
BW-4B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-4B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



BW-4B BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





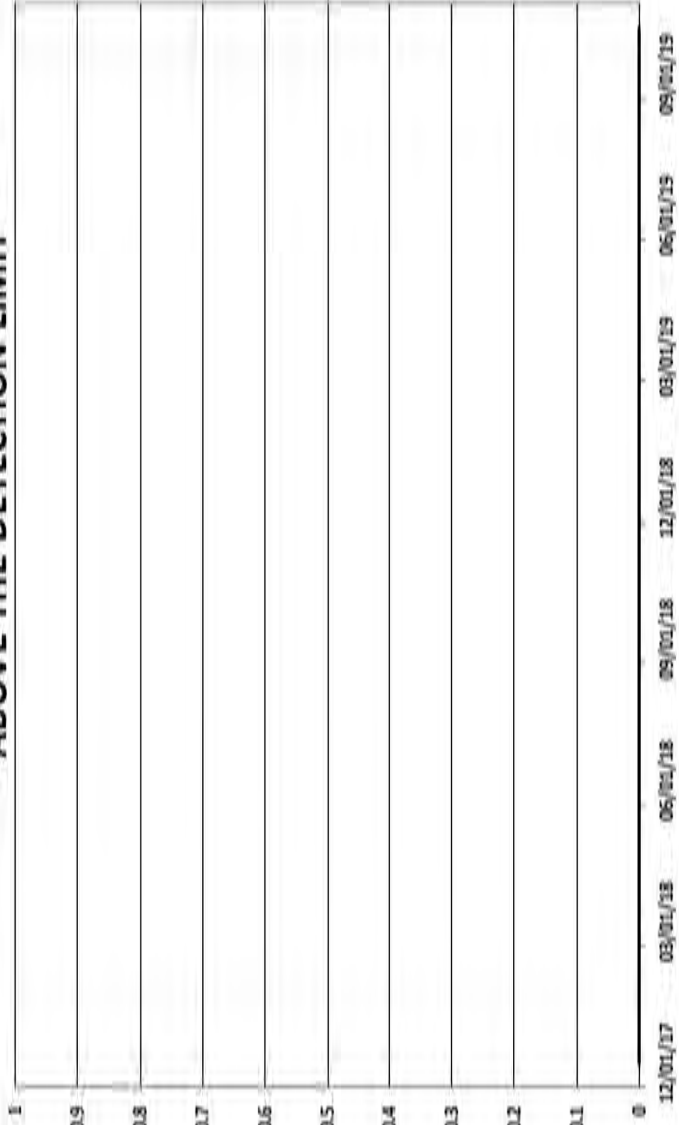
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BTEX & MTBE THROUGH 2019 - WELL BW-4B		
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Drawn By: REP	Checked By: BM	Scale: NONE

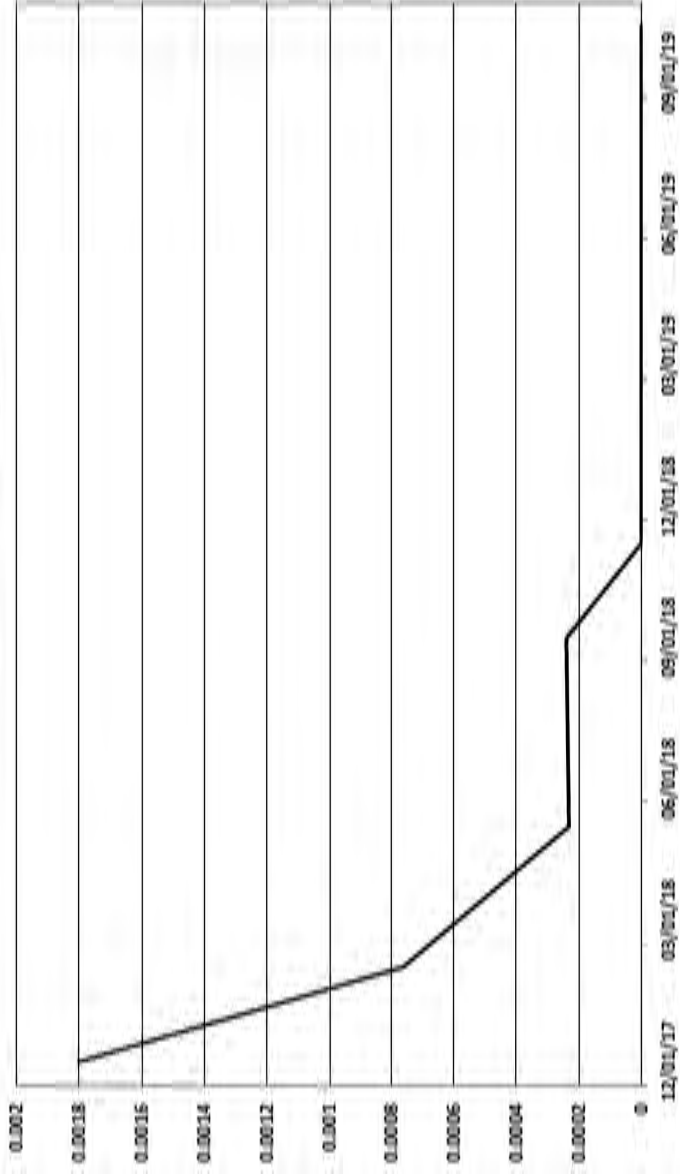
FIGURE 19.7



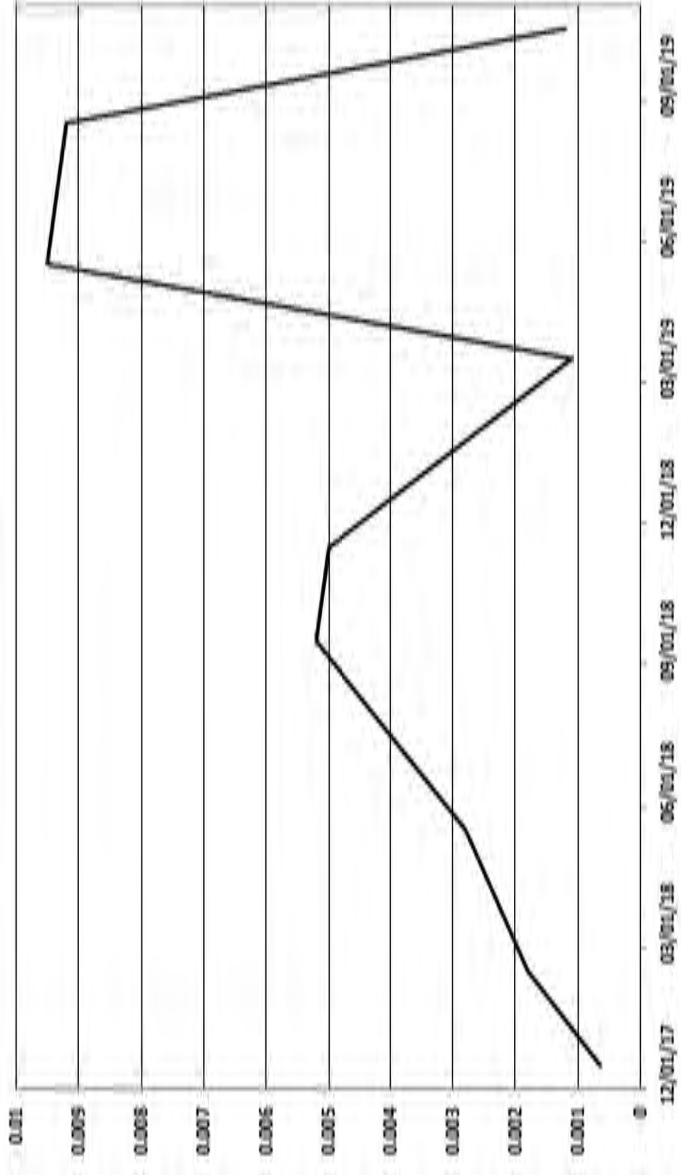
BW-5B BENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



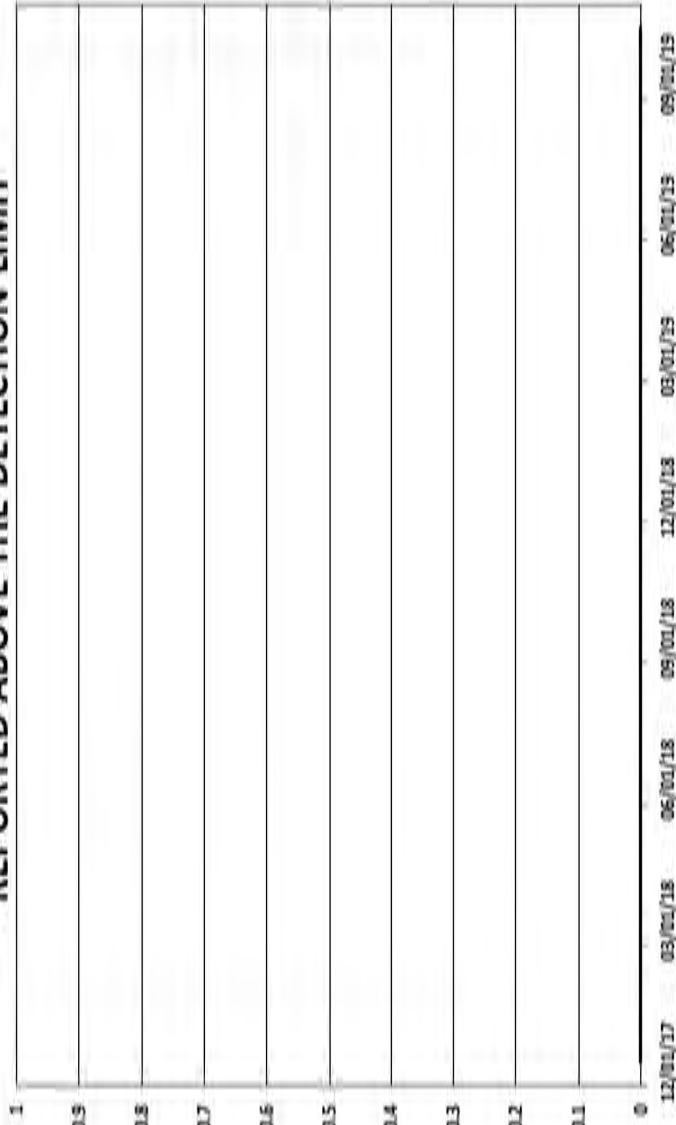
BW-5B TOLUENE (mg/L)



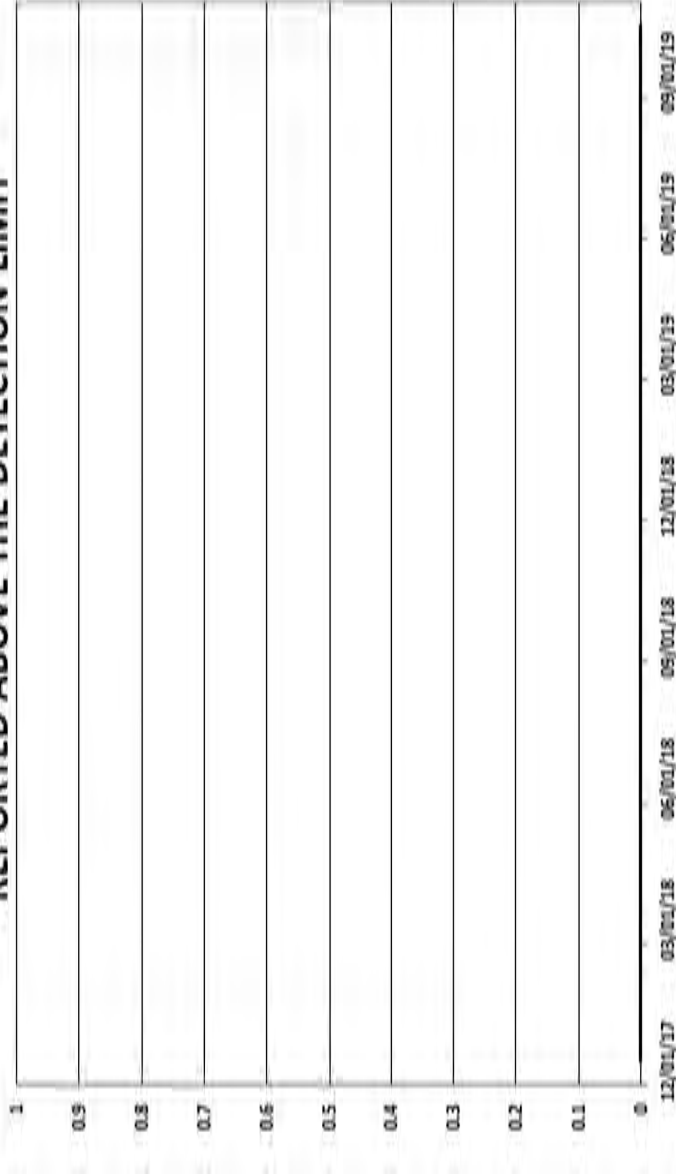
BW-5B MTBE (mg/L)



BW-5B ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



BW-5B TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





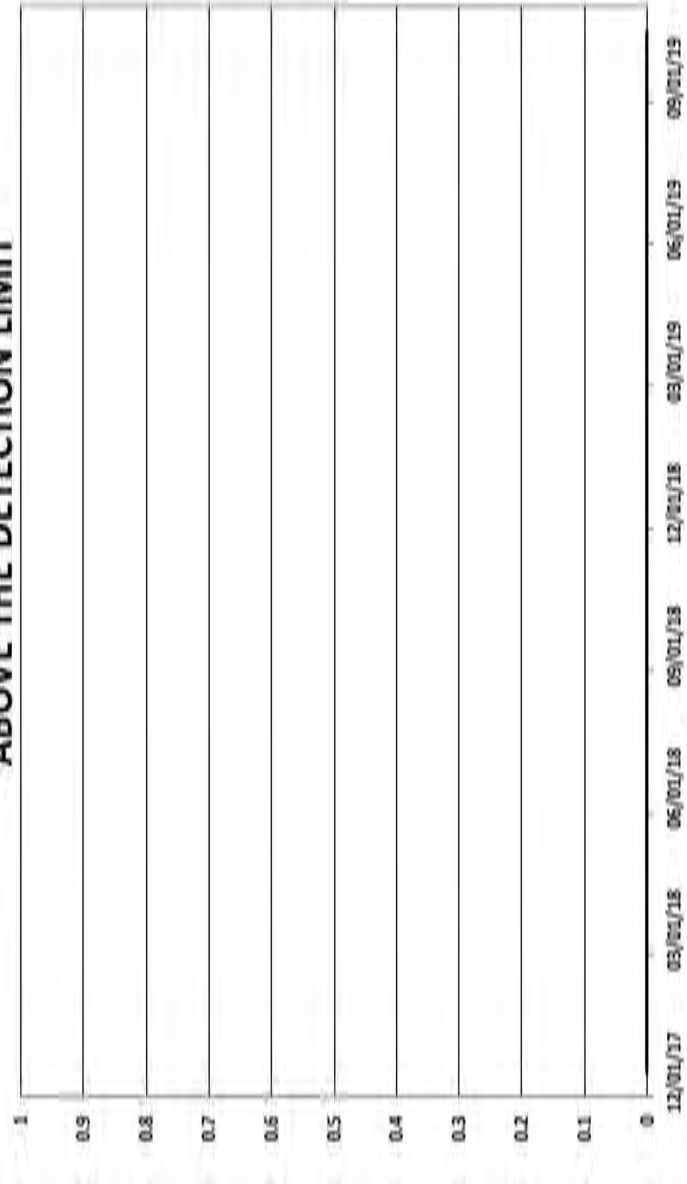
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BTEX & MTBE THROUGH 2019 - WELL BW-5B		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

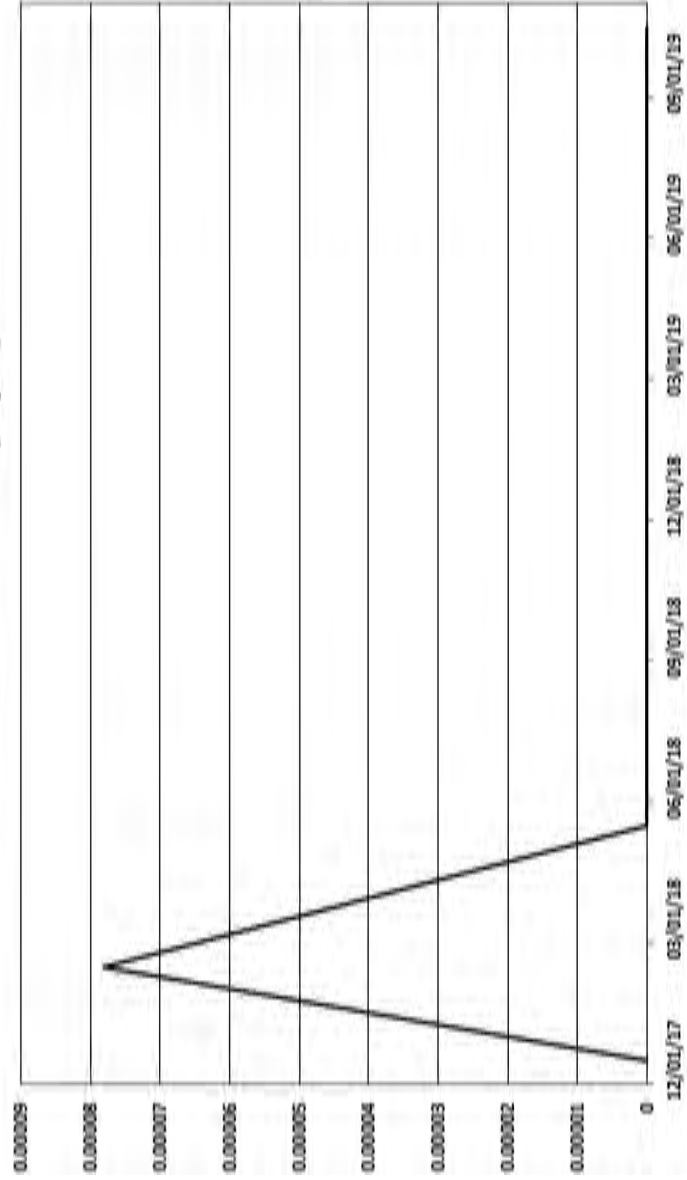
FIGURE 19.8



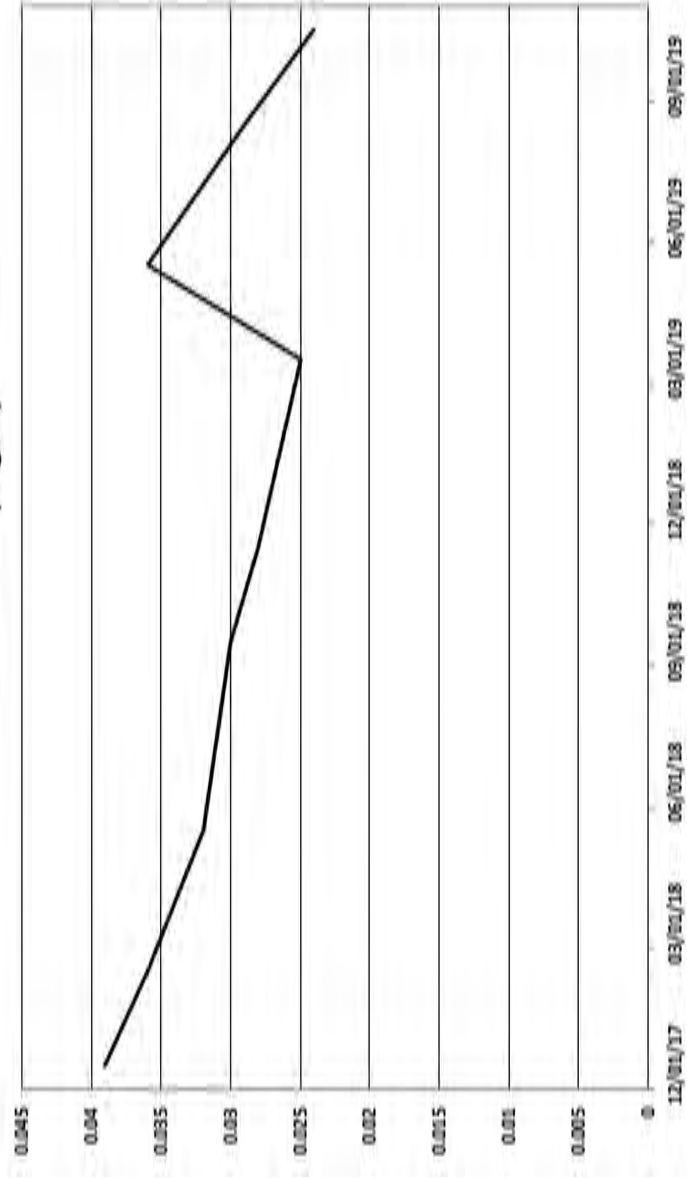
BW-5C BENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



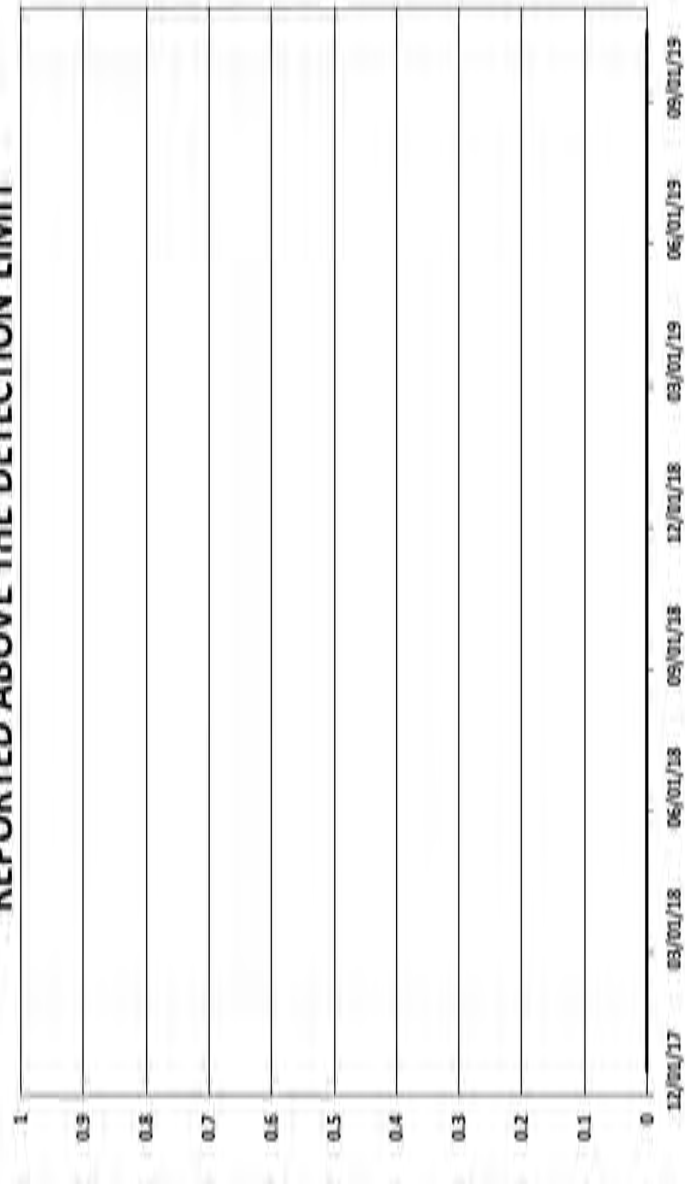
BW-5C TOLUENE (mg/L)



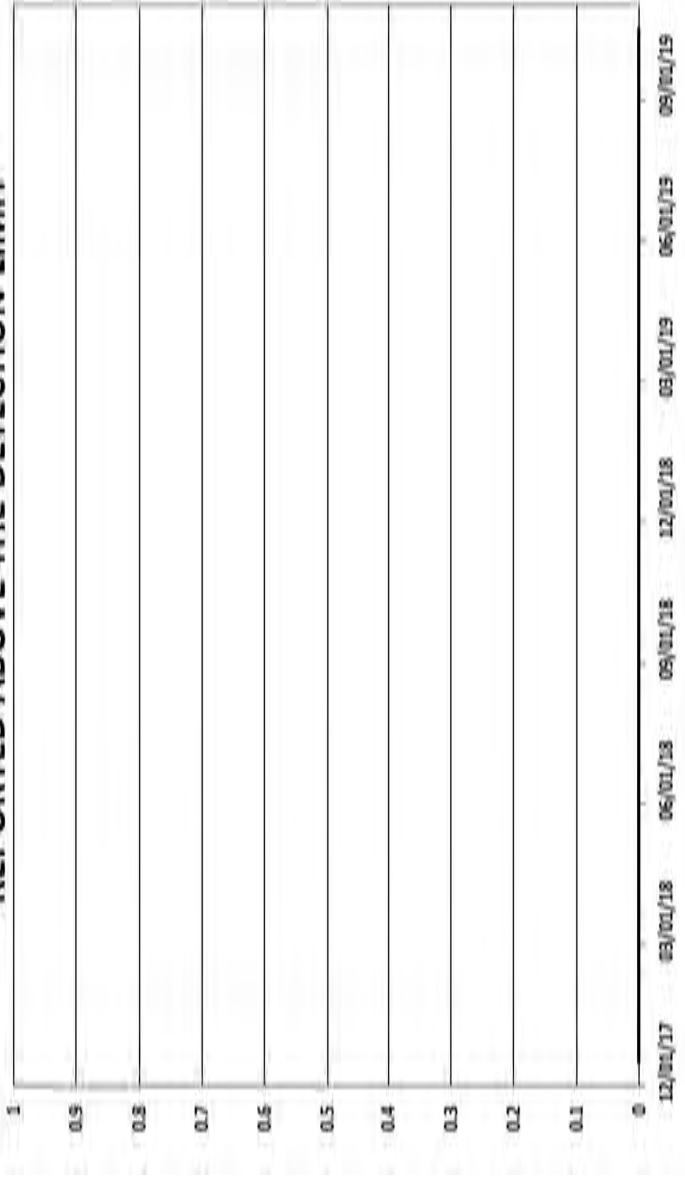
BW-5C MTBE (mg/L)



BW-5C ETHYLBENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



BW-5C TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





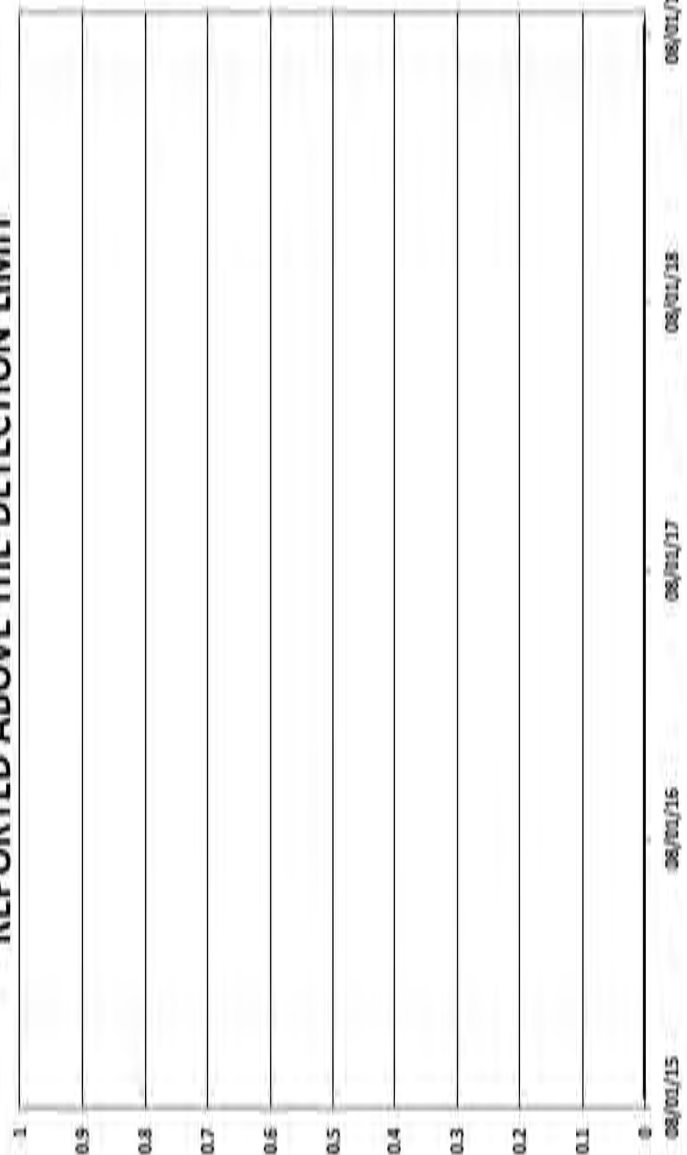
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BTEX & MTBE THROUGH 2019 - WELL BW-5C		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Scale: NONE

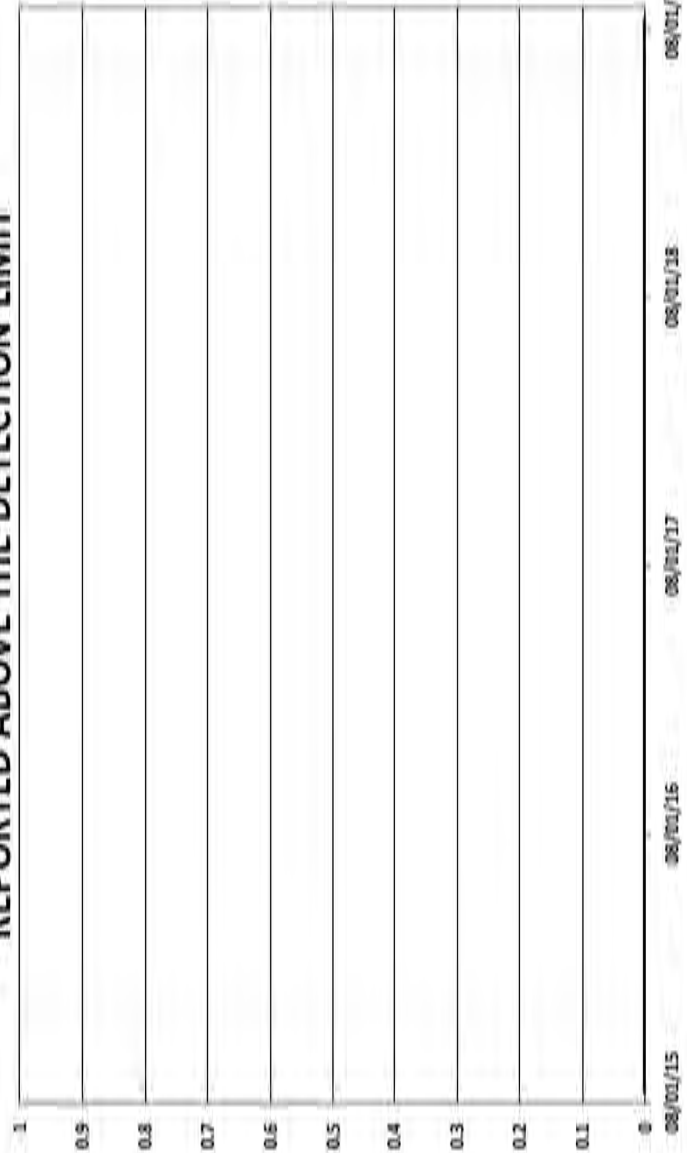
FIGURE 19.9



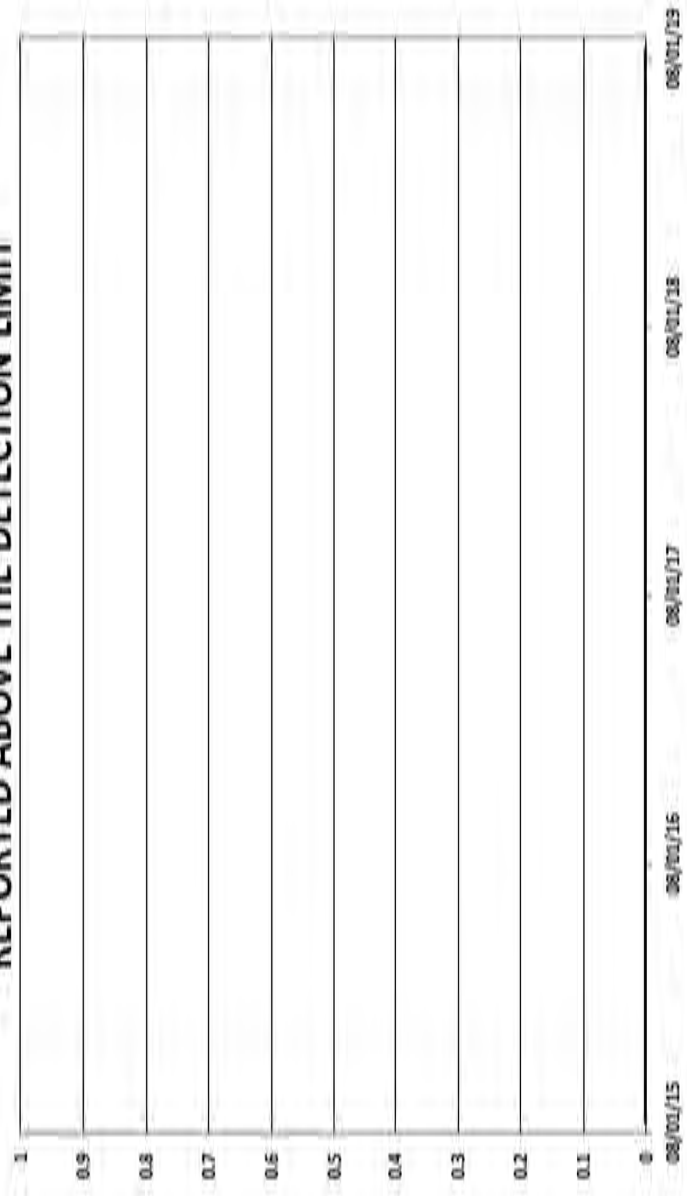
MW-1 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



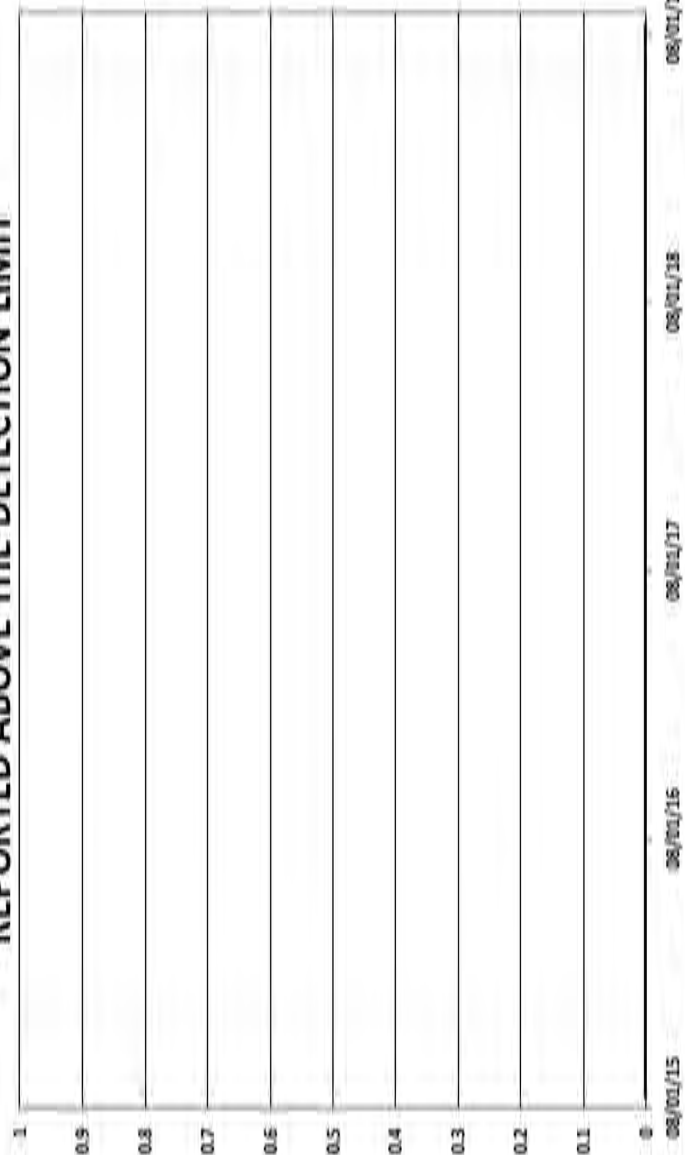
MW-1 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



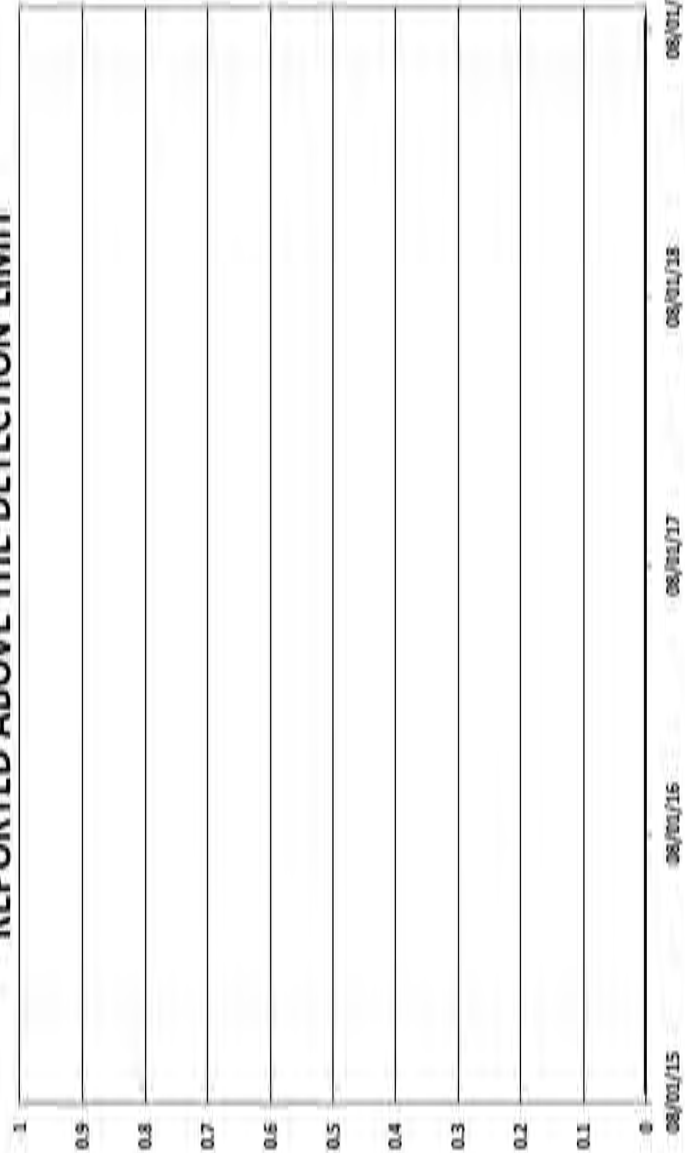
MW-1 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-1 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-1 BTEX & MTBE - NO CONCENTRATIONS  
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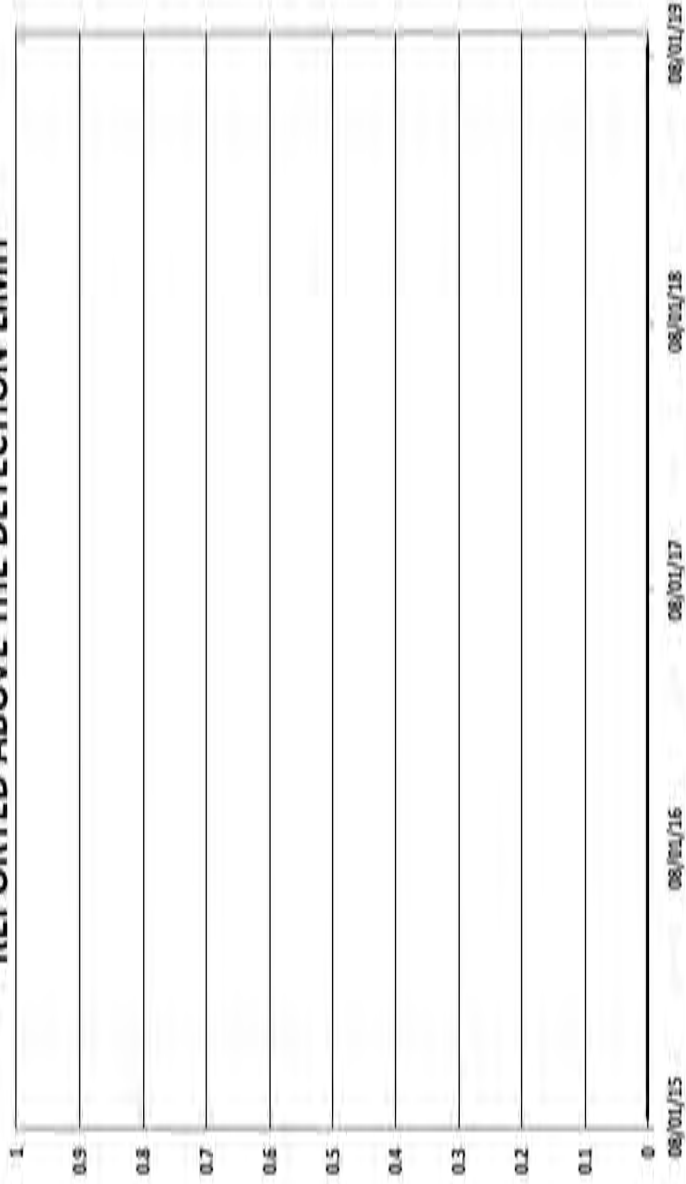
FIGURE 19.10

BTEX & MTBE THROUGH 2019 - WELL MW-1

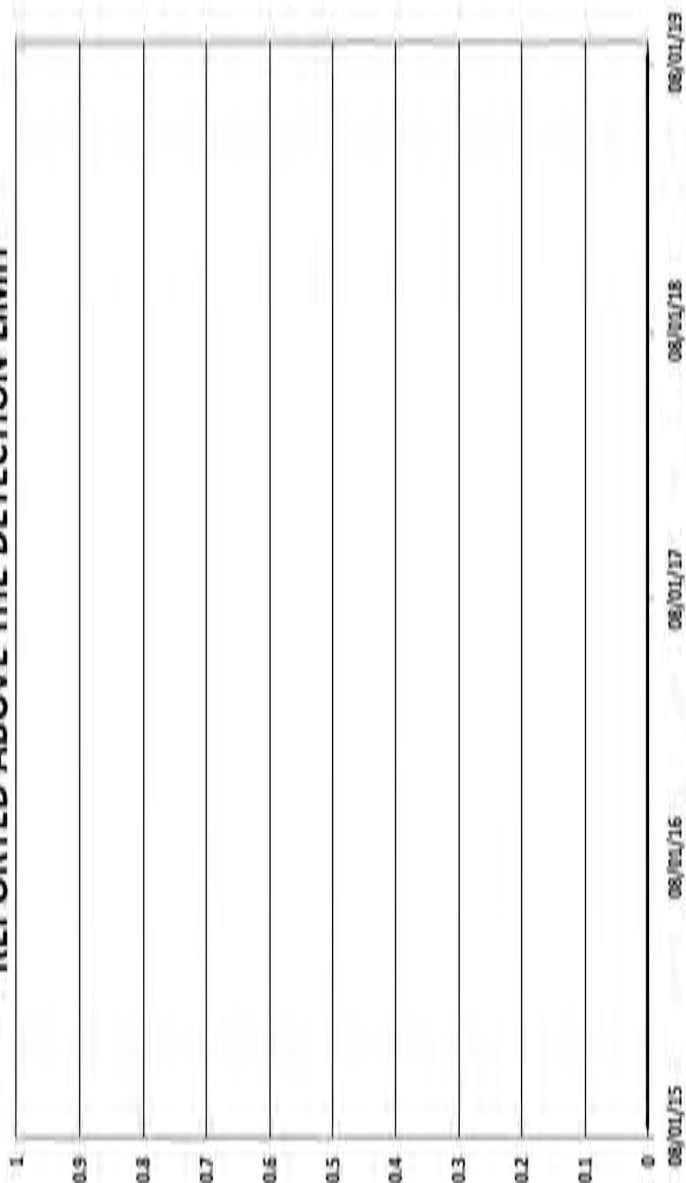
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



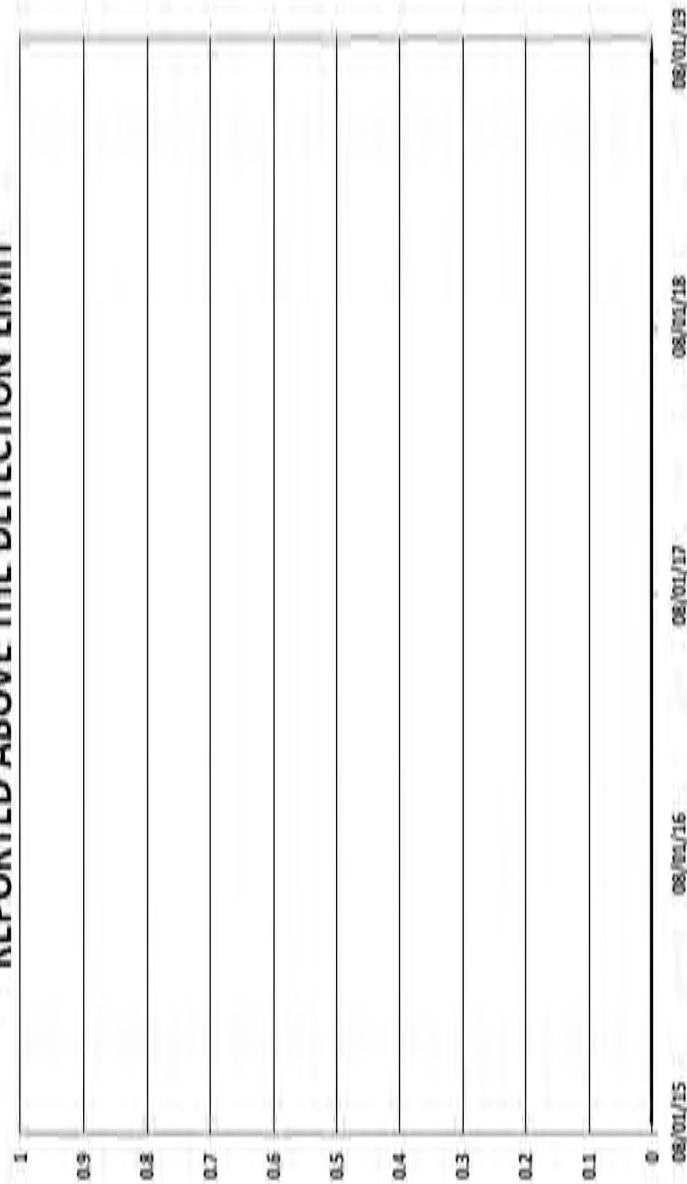
MW-2 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



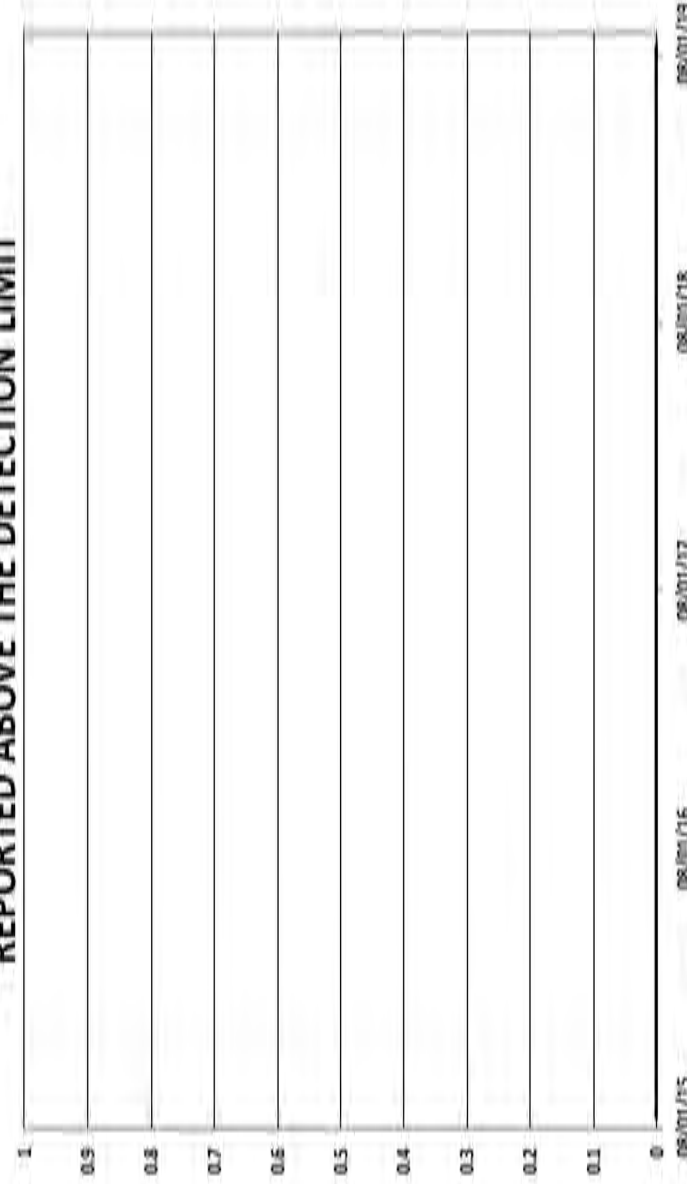
MW-2 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



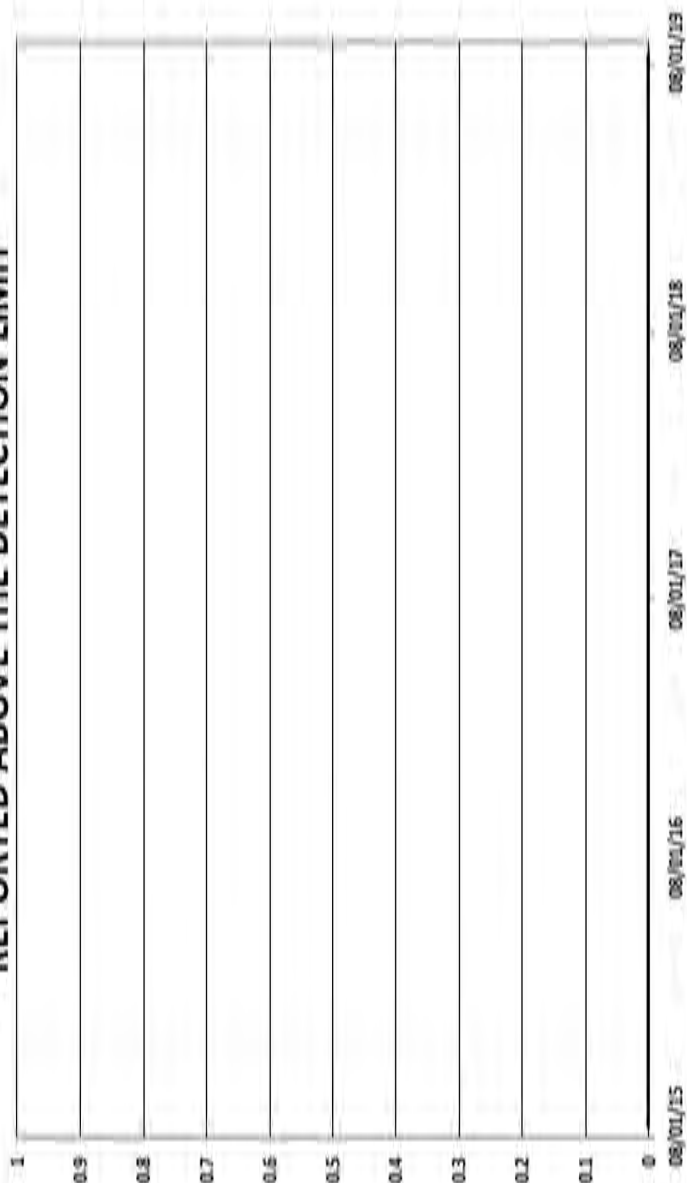
MW-2 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-2 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-2 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



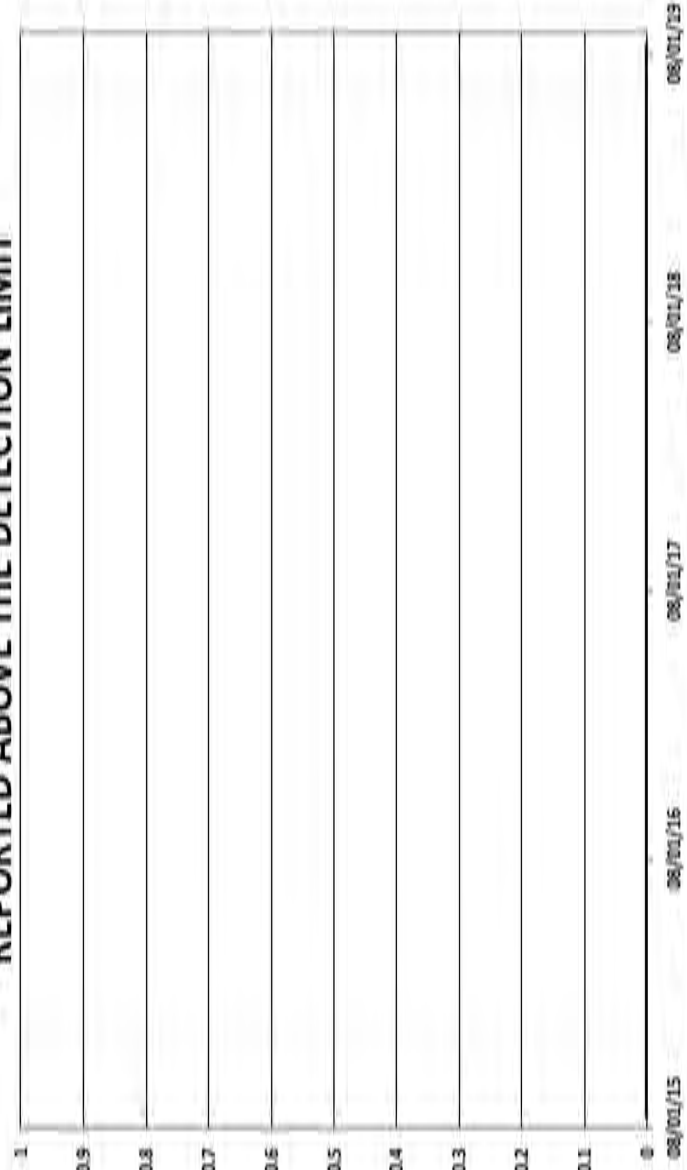
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FIGURE 19.11

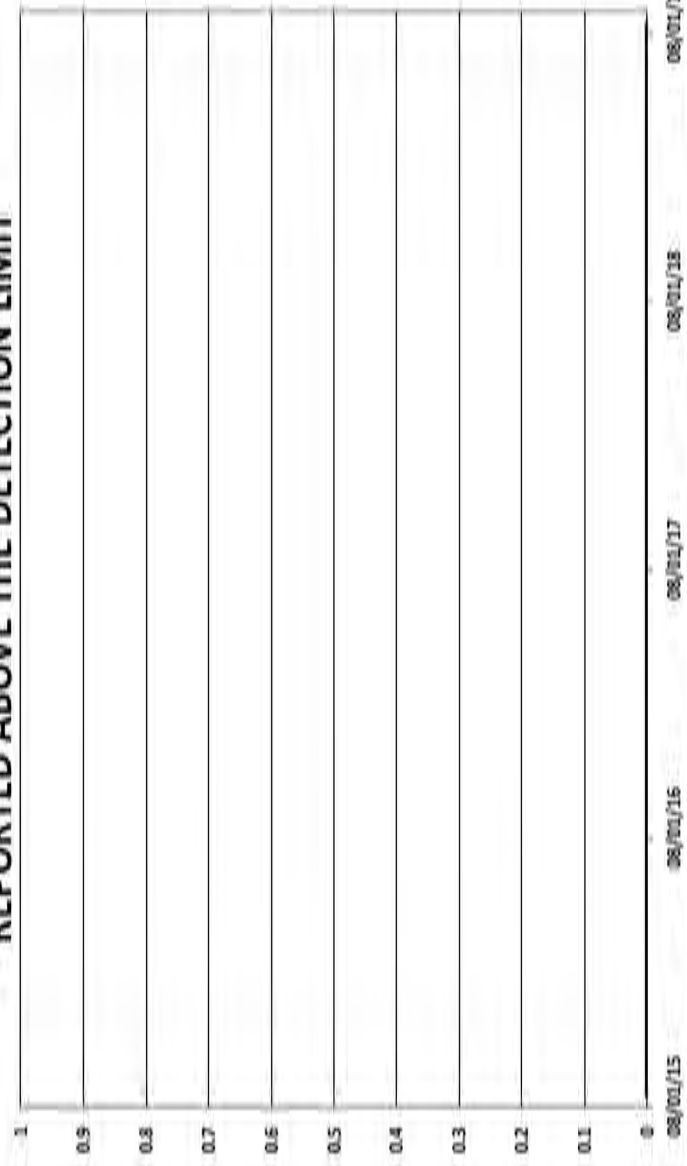
BTEX & MTBE THROUGH 2019 - WELL MW-2  
GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO



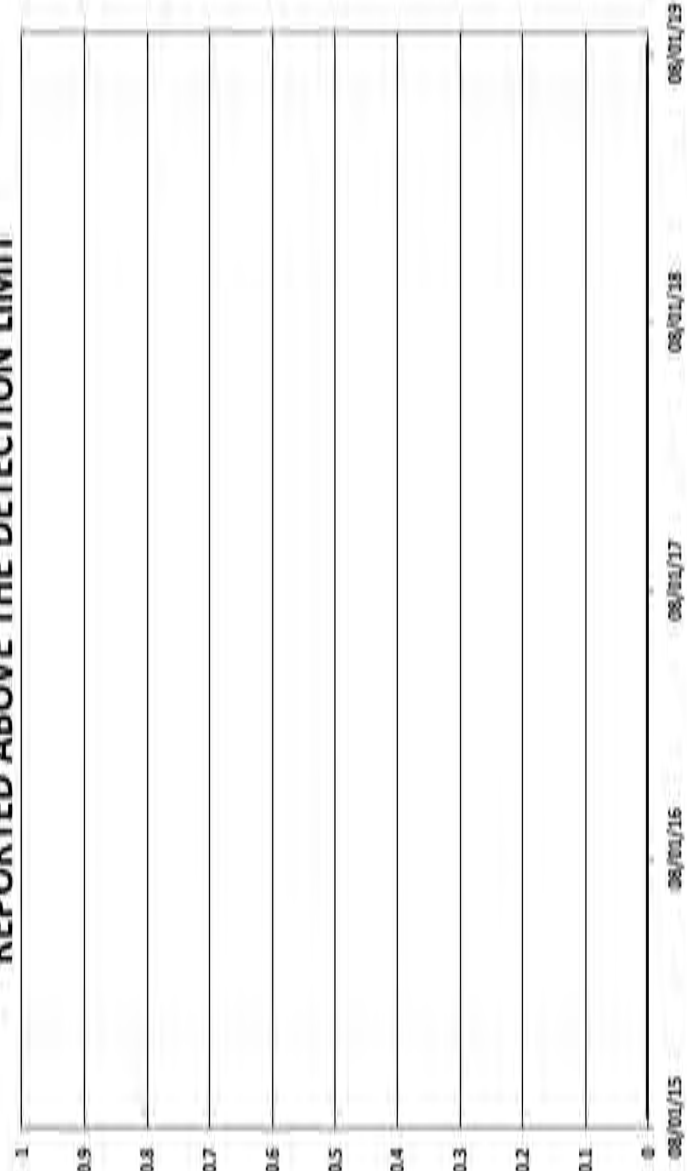
MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



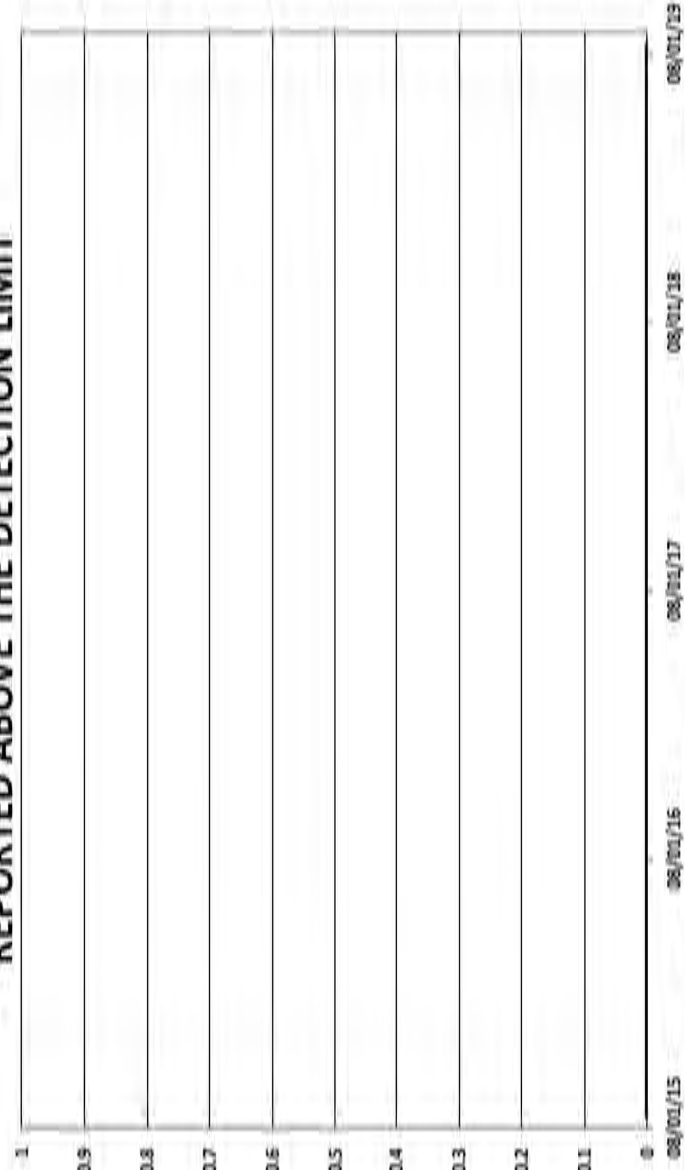
MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



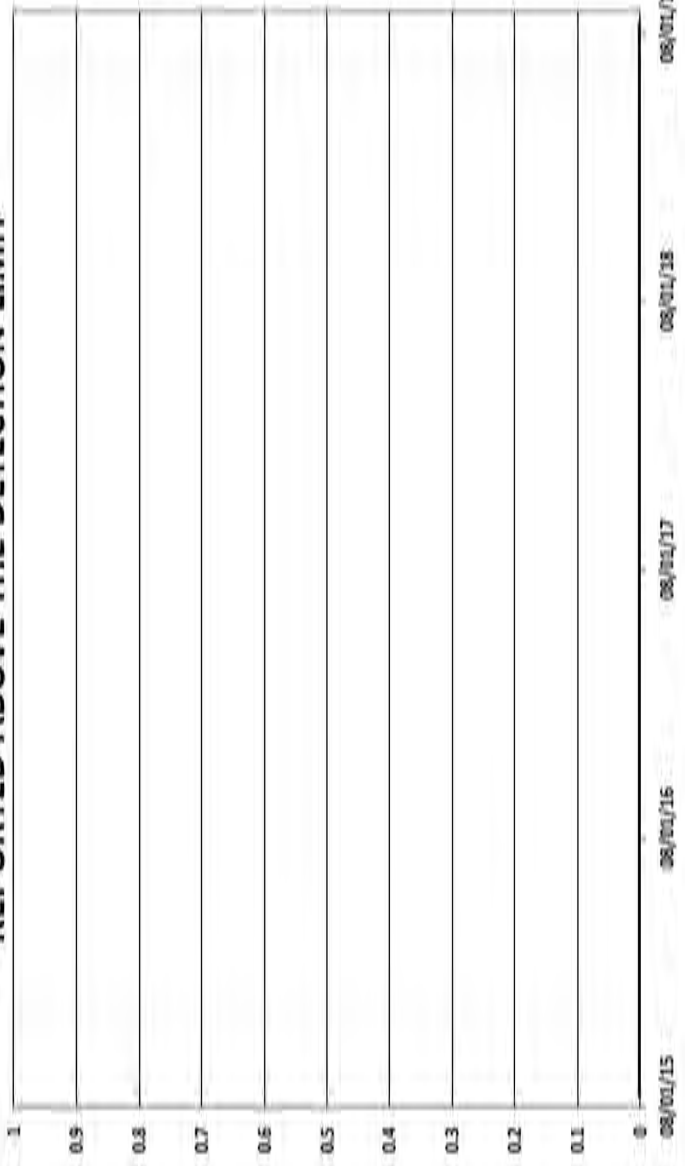
MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT

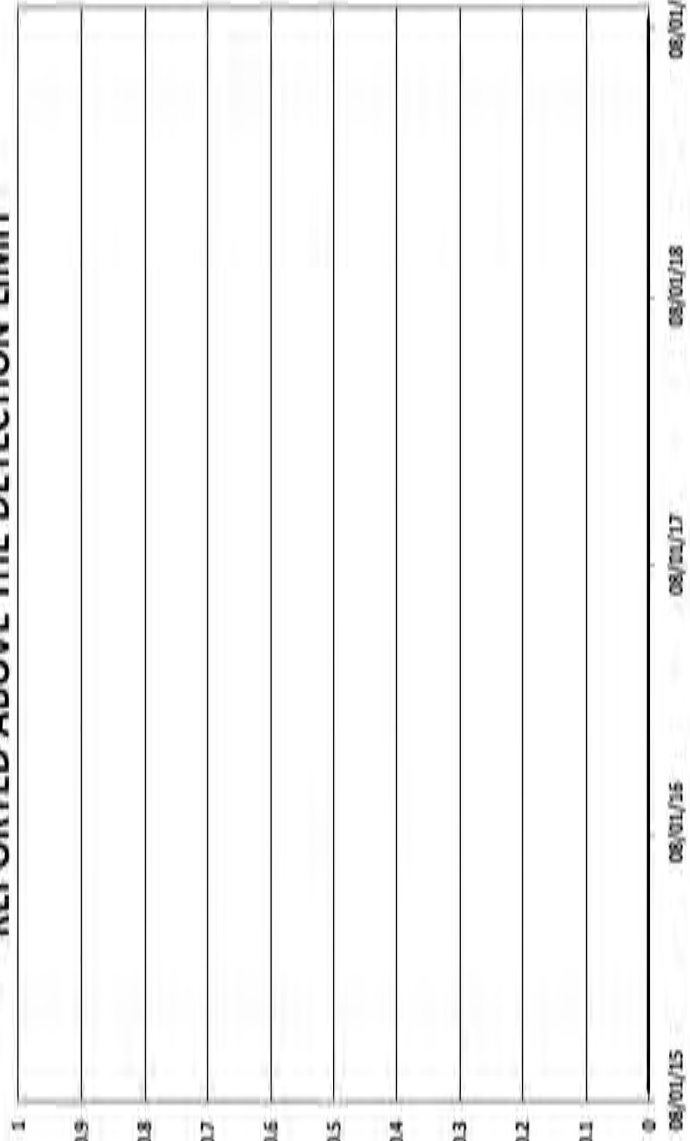


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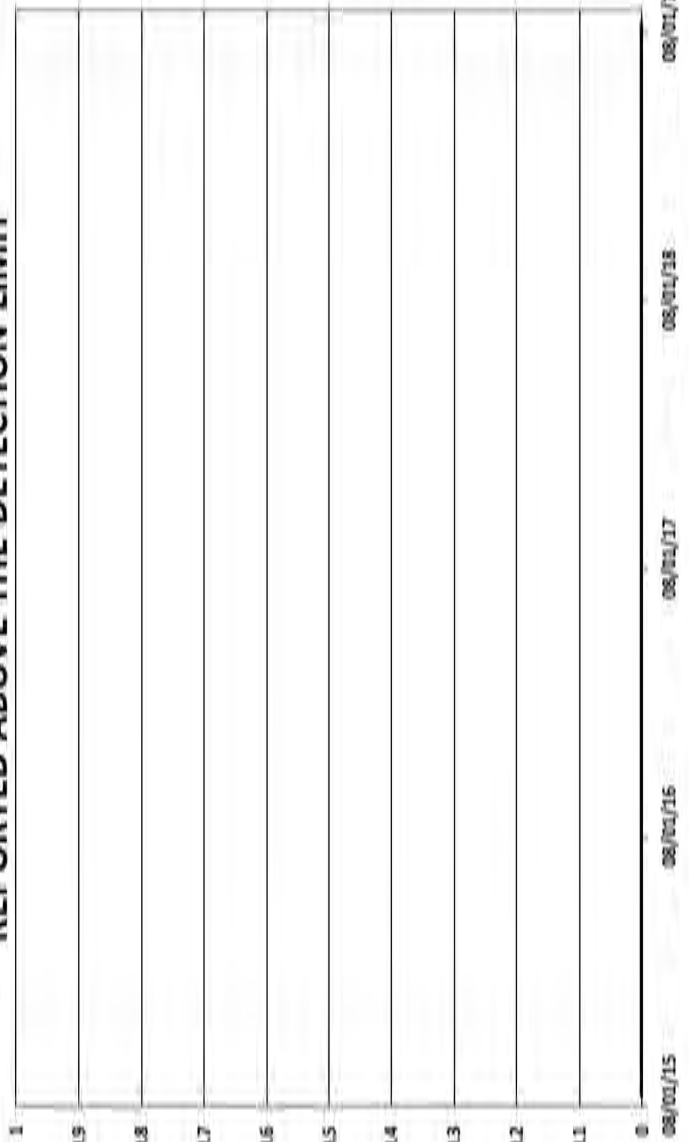
**FIGURE 19.12**  
BTEX & MTBE THROUGH 2019 - WELL MW-4  
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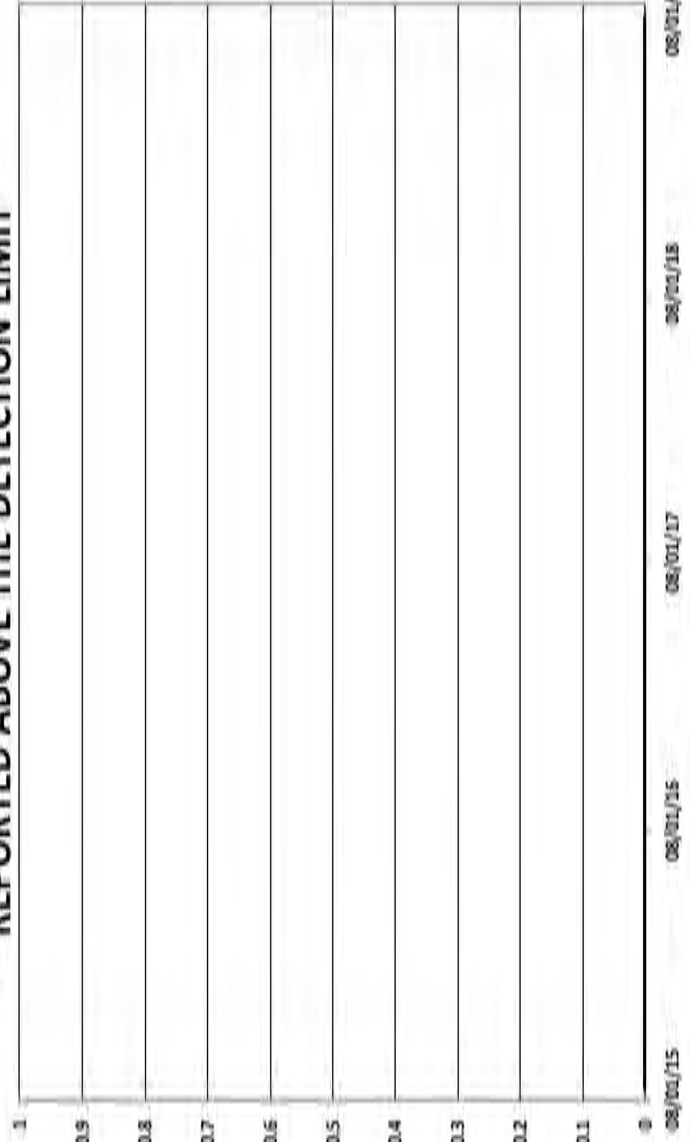
MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



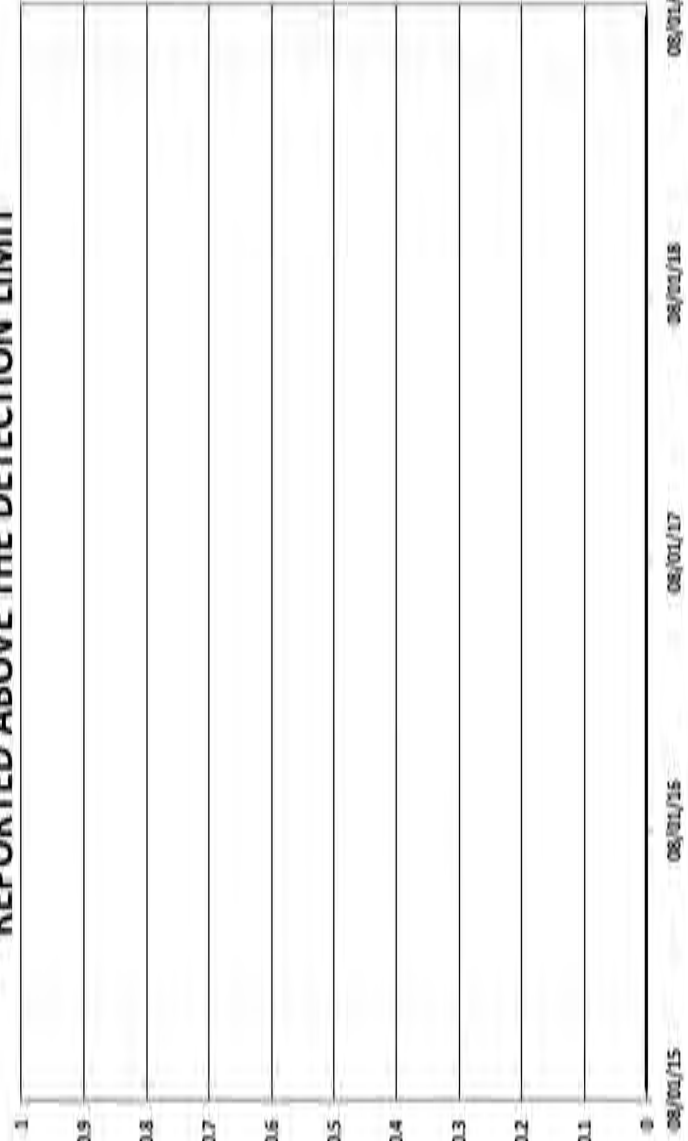
MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



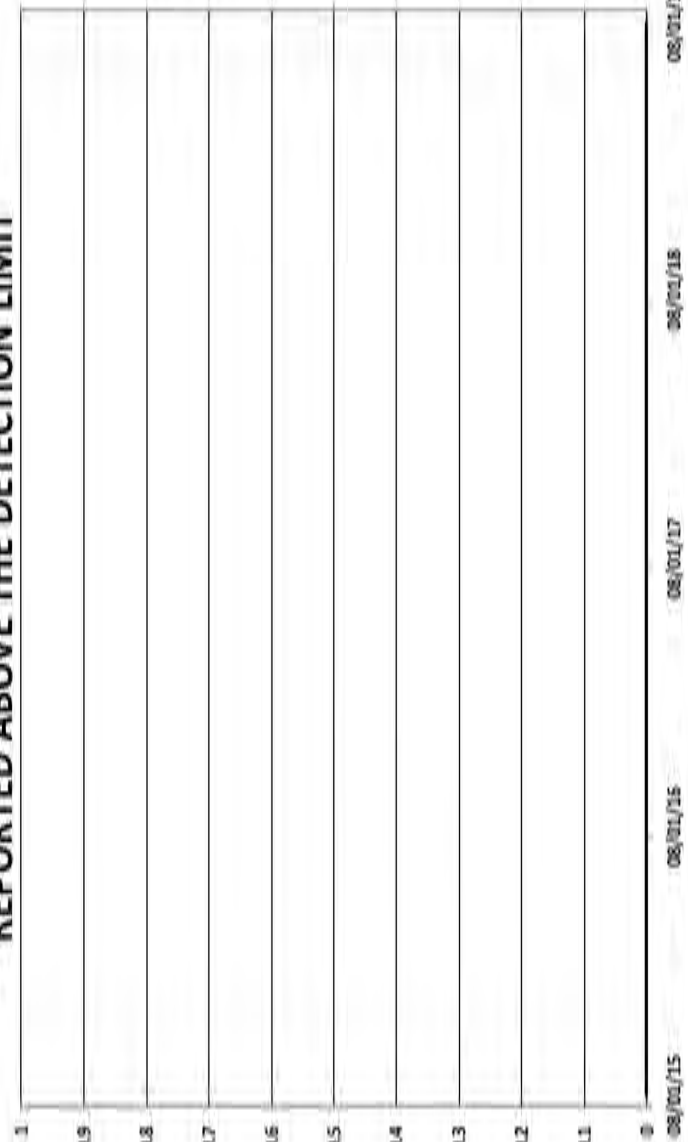
MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



MW-5 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





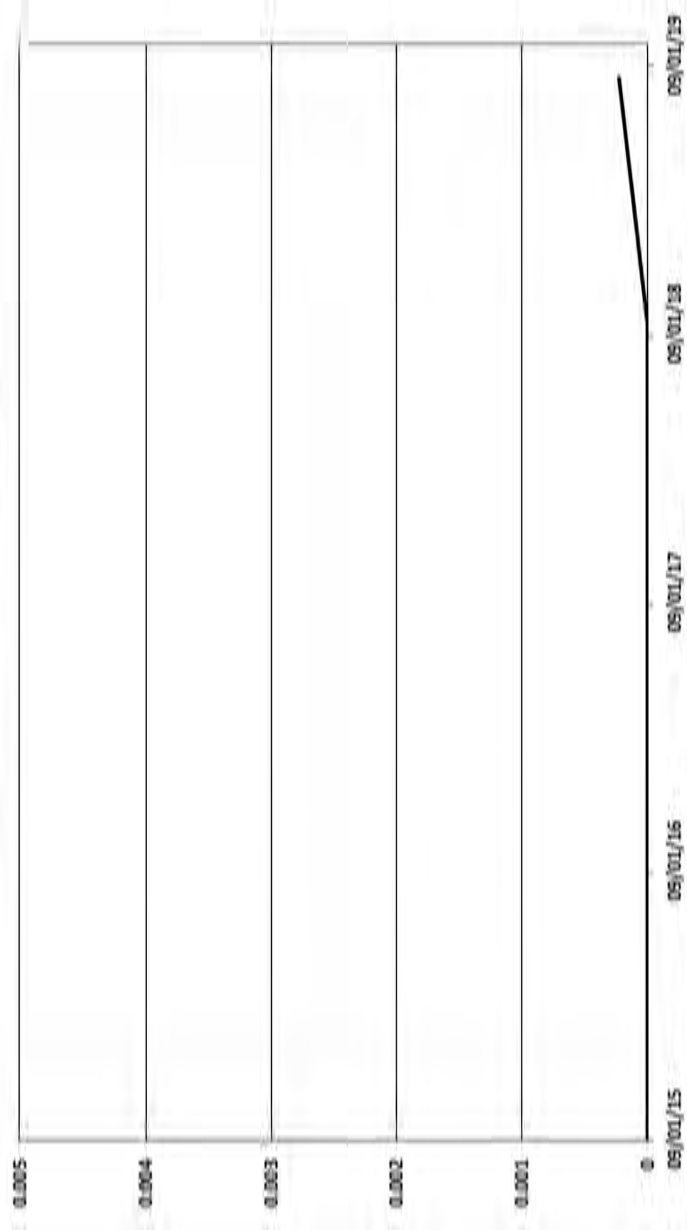
**Trihydro**  
CORPORATION  
1252 Commerce Drive  
Laramie, Wyoming 82070  
USA  
(P) 307.745.7474 (F) 307.745.7729

BTEX & MTBE THROUGH 2019 - WELL MW-5		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Scale: NONE

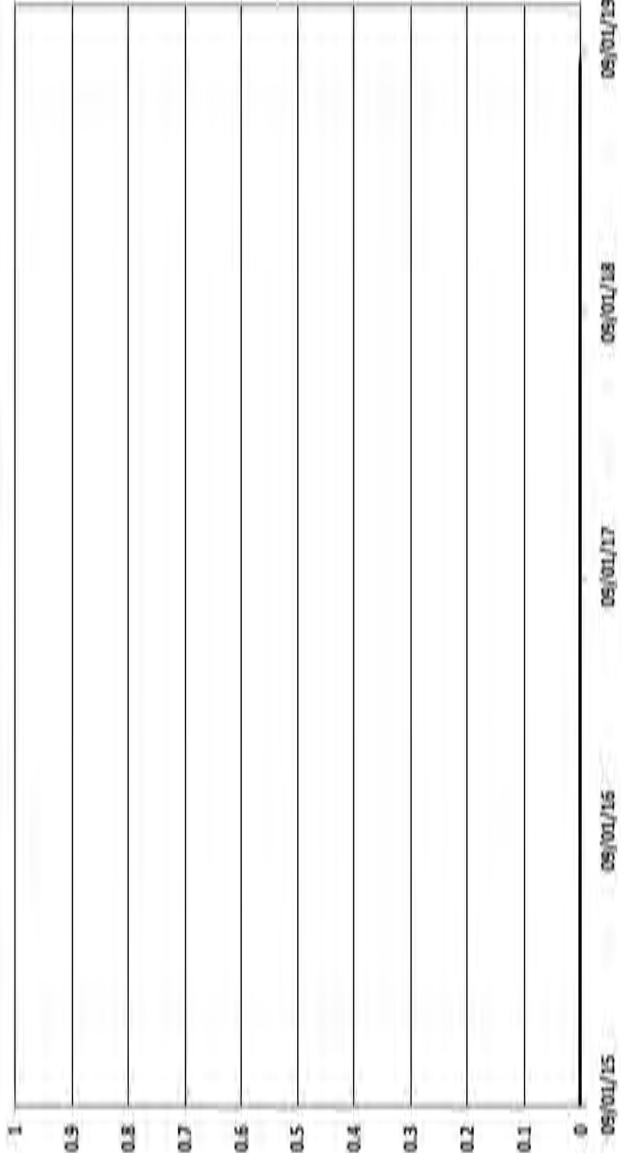
FIGURE 19.13



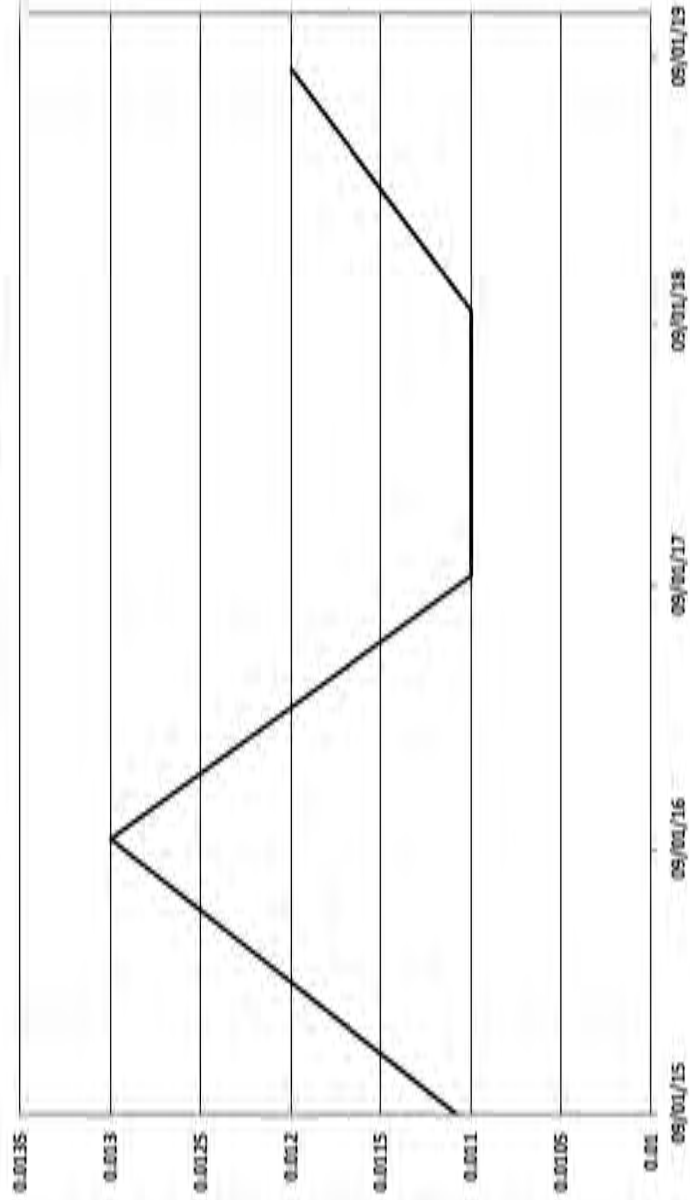
SMW-2 BENZENE (mg/L)



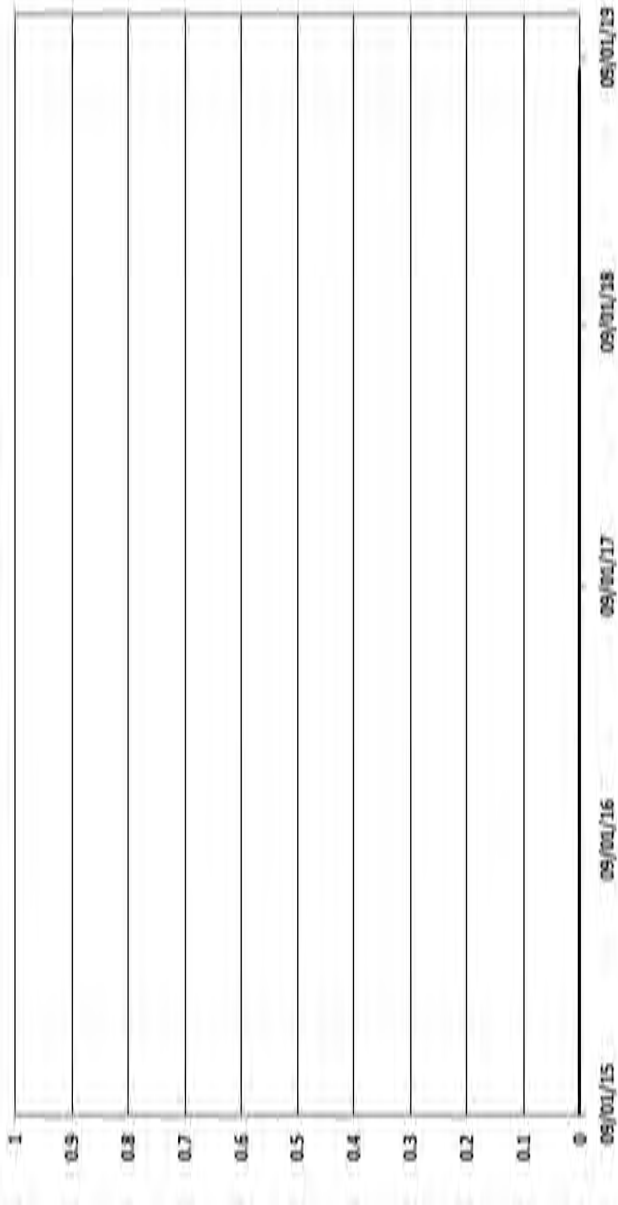
SMW-2 TOLUENE, ETHYLBENZENE, XYLENES  
NO CONCENTRATIONS REPORTED ABOVE THE  
DETECTION LIMIT



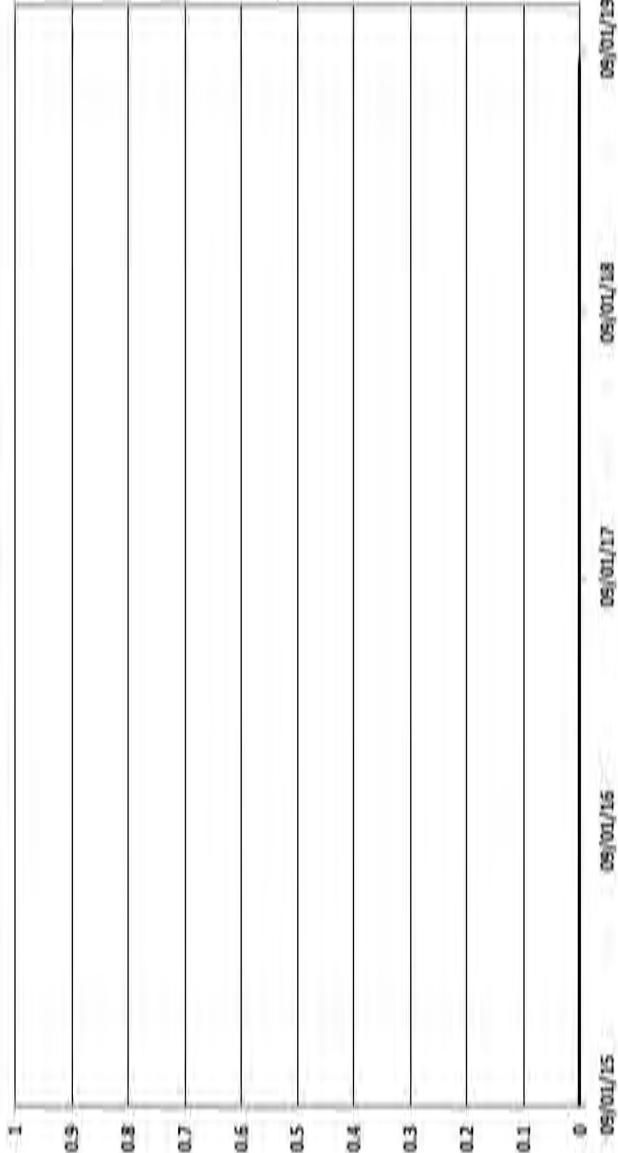
SMW-2 MTBE (mg/L)



SMW-2 TOLUENE, ETHYLBENZENE, XYLENES  
NO CONCENTRATIONS REPORTED ABOVE THE  
DETECTION LIMIT



SMW-2 TOLUENE, ETHYLBENZENE, XYLENES  
NO CONCENTRATIONS REPORTED ABOVE THE  
DETECTION LIMIT





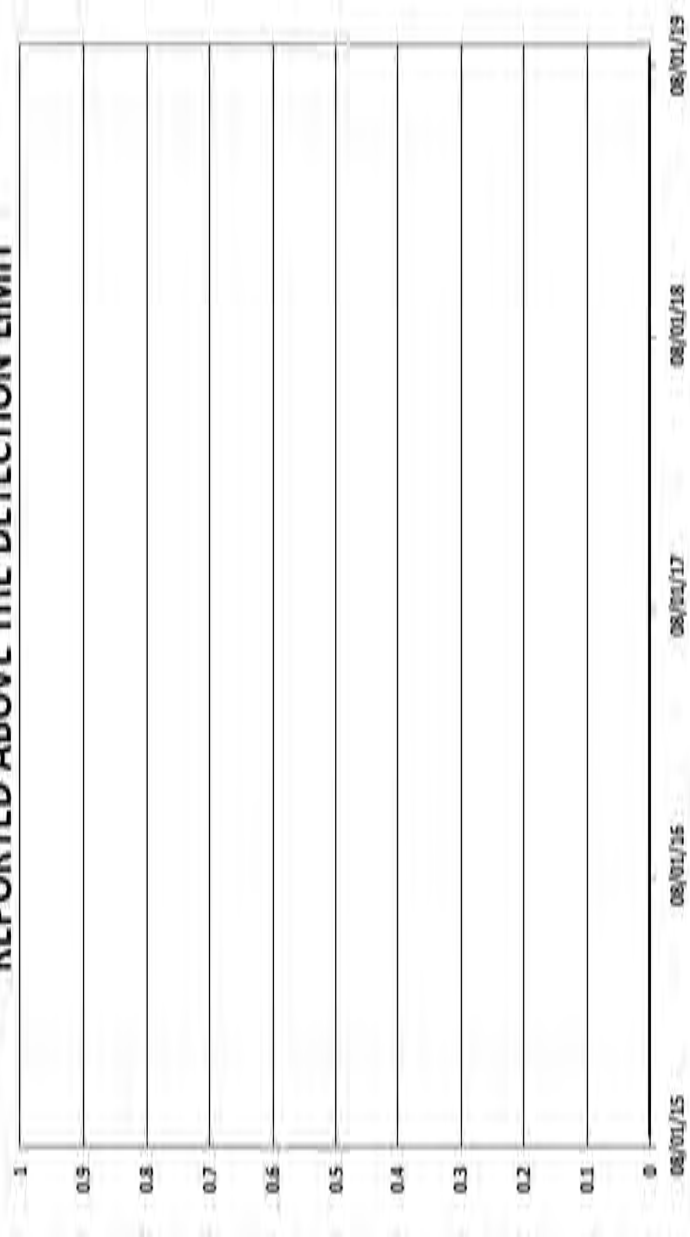
**Trihydro**  
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Laramie, Wyoming 82070  
Phone: 307.745.7424 Fax: 307.745.7729

BTEX & MTBE THROUGH 2019 - WELL SMW-2		
GROUNDWATER MONITORING 2019 MARATHON PETROLEUM CORP. GALLUP, NEW MEXICO		
Drawn By: REP	Checked By: BM	Date: 9/15/2020

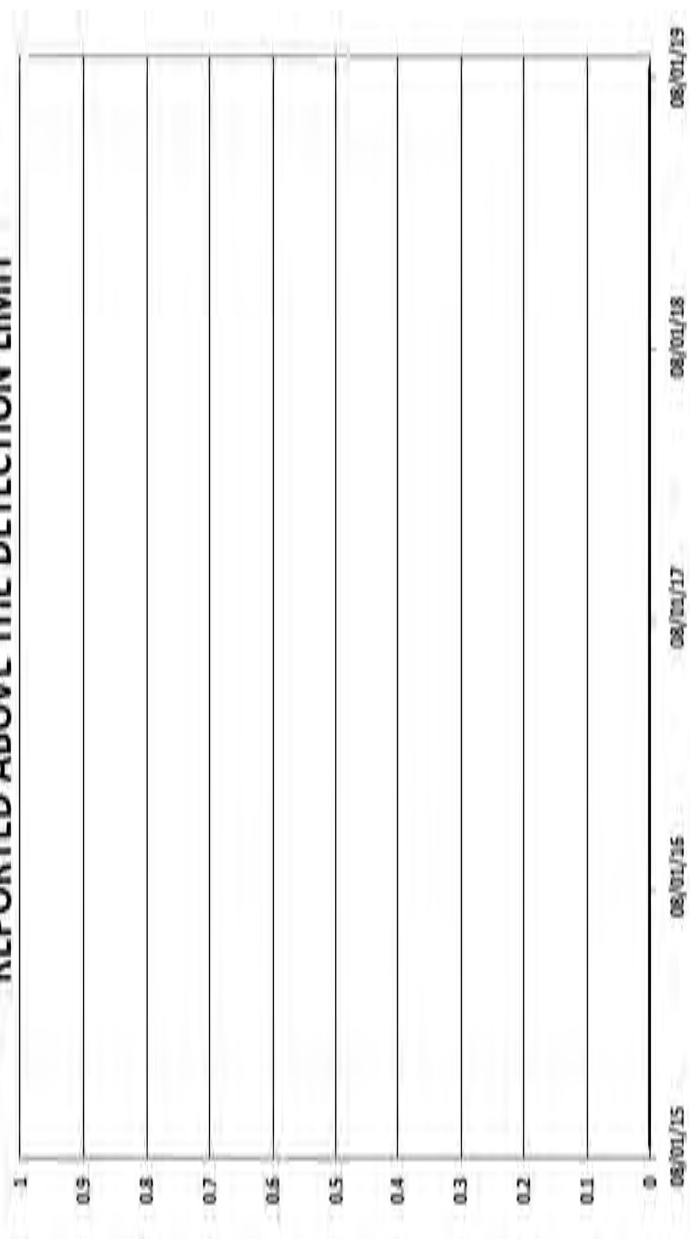
FIGURE 19.14



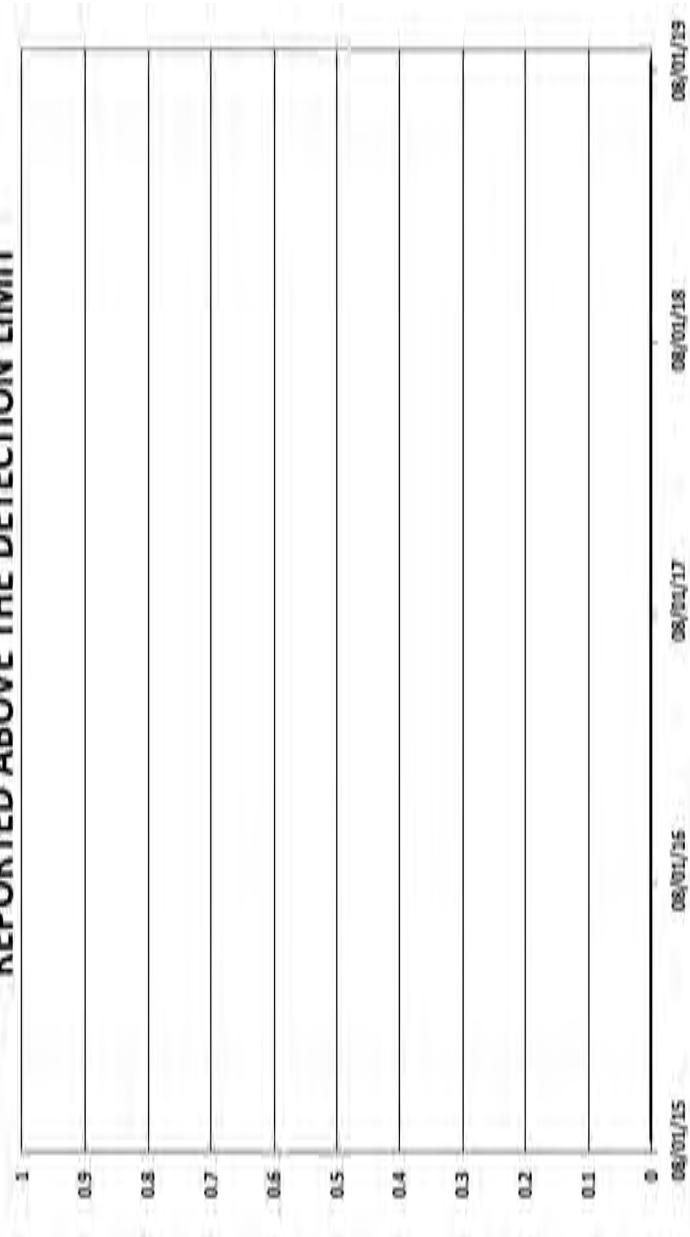
SMW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



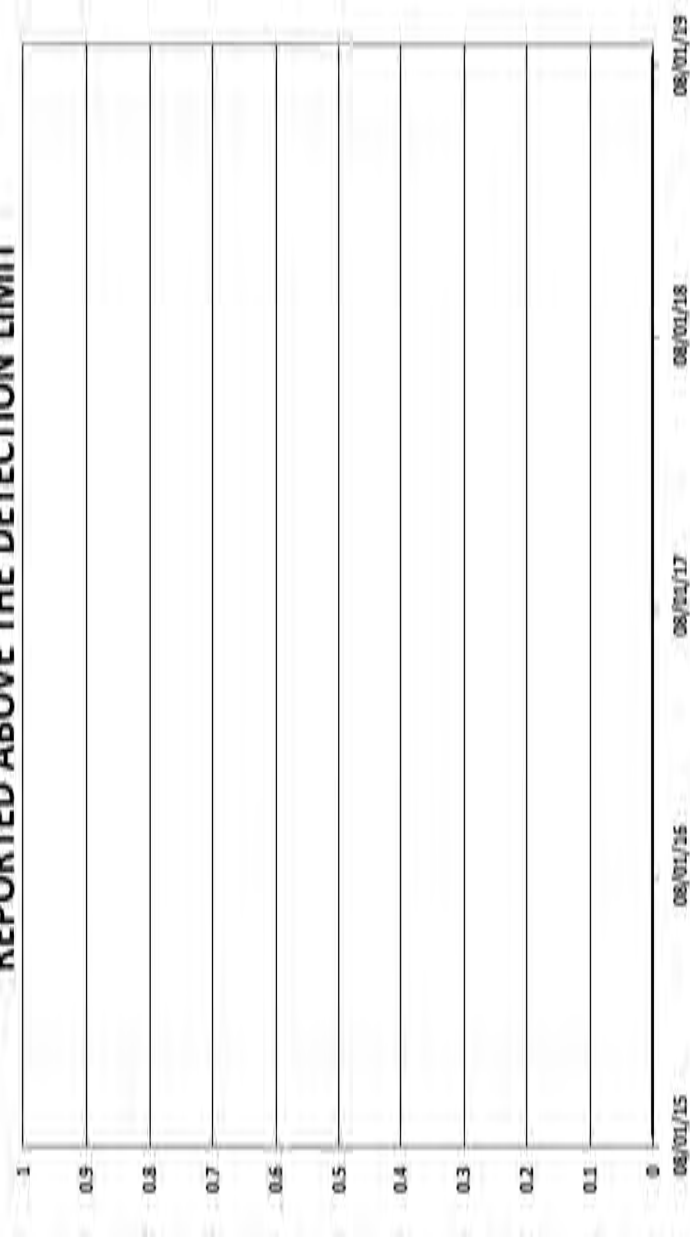
SMW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



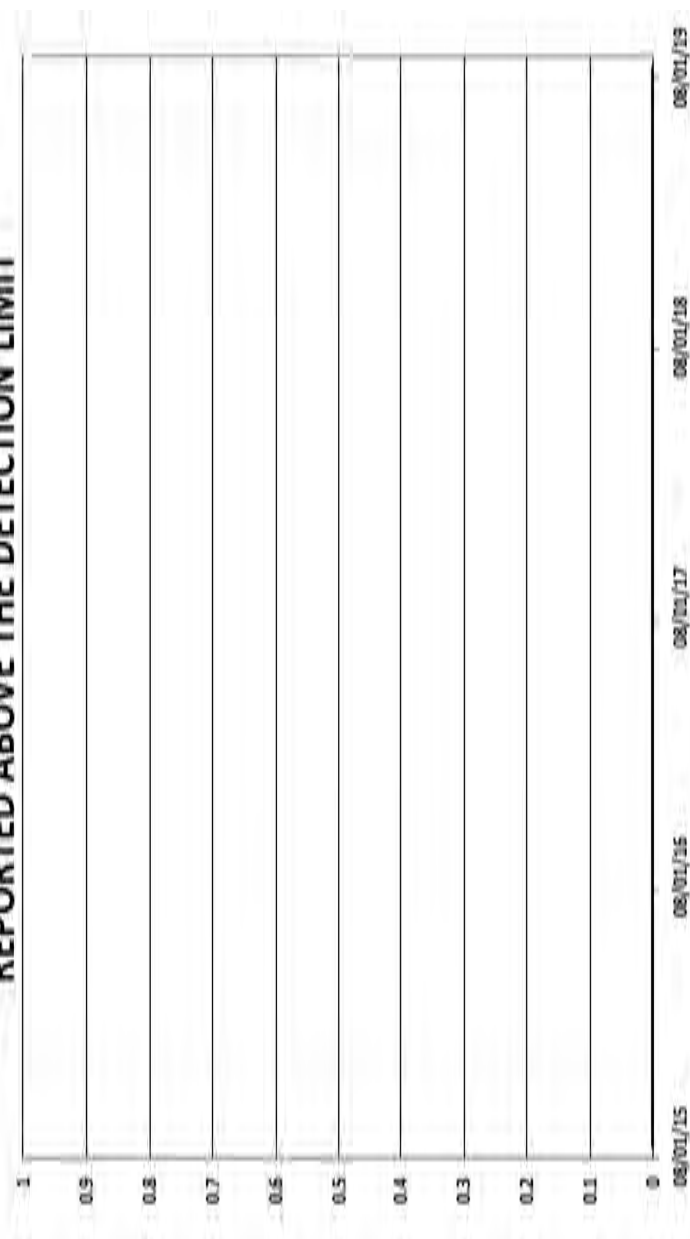
SMW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



SMW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT



SMW-4 BTEX & MTBE - NO CONCENTRATIONS  
REPORTED ABOVE THE DETECTION LIMIT





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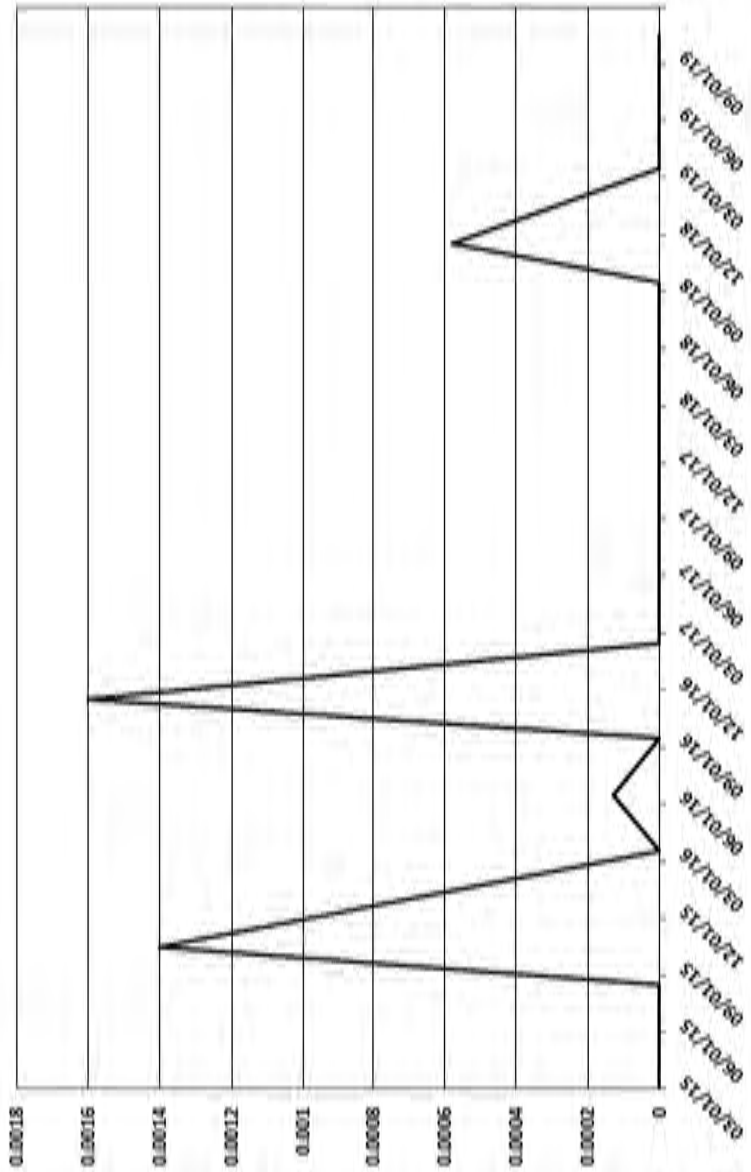
BTEX & MTBE THROUGH 2019 - WELL SMW-4

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

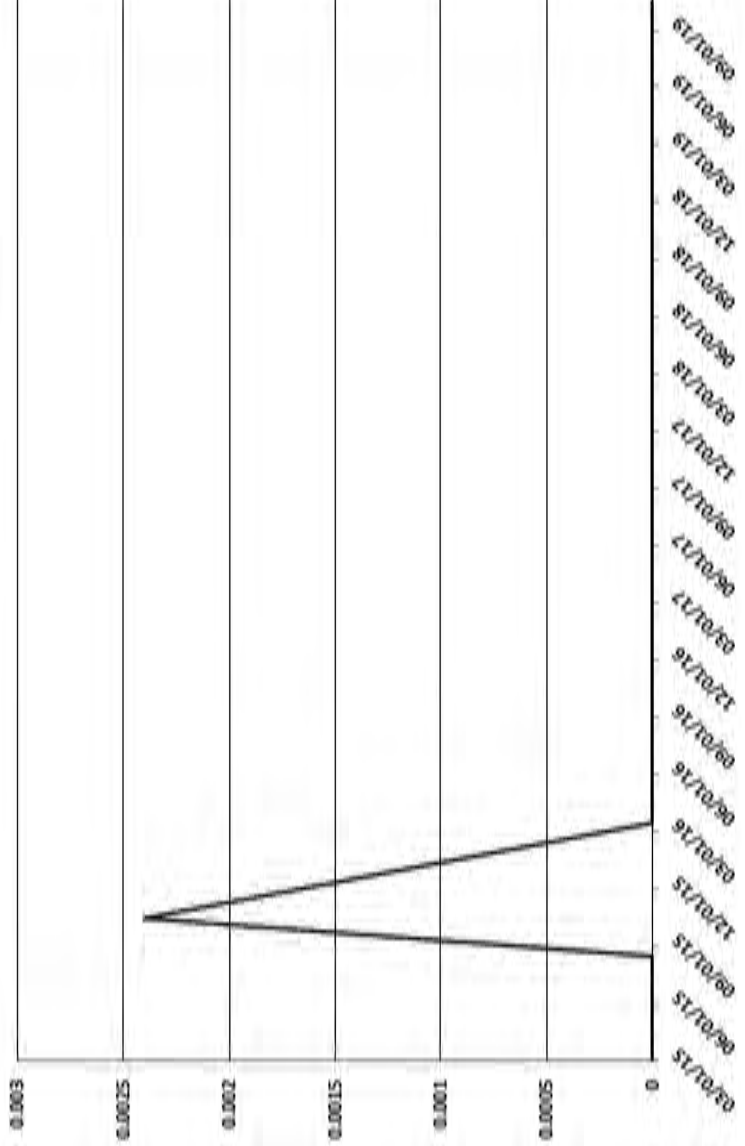
FIGURE 19.15



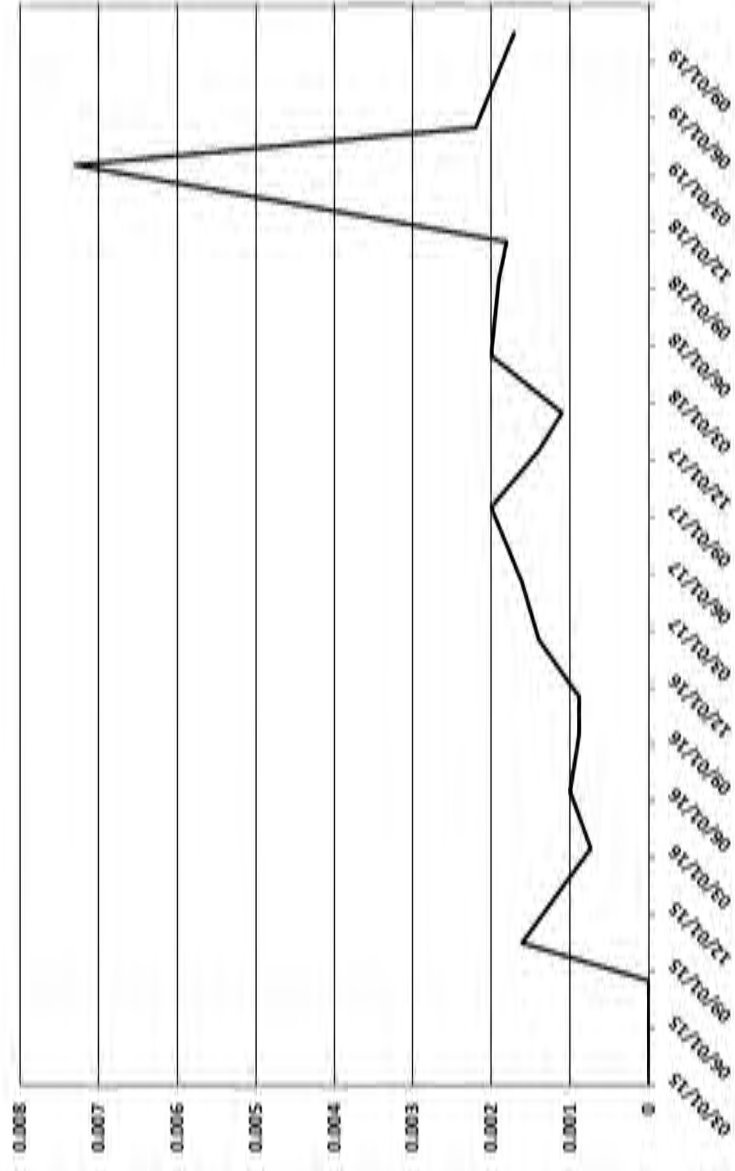
OW-1 BENZENE (mg/L)



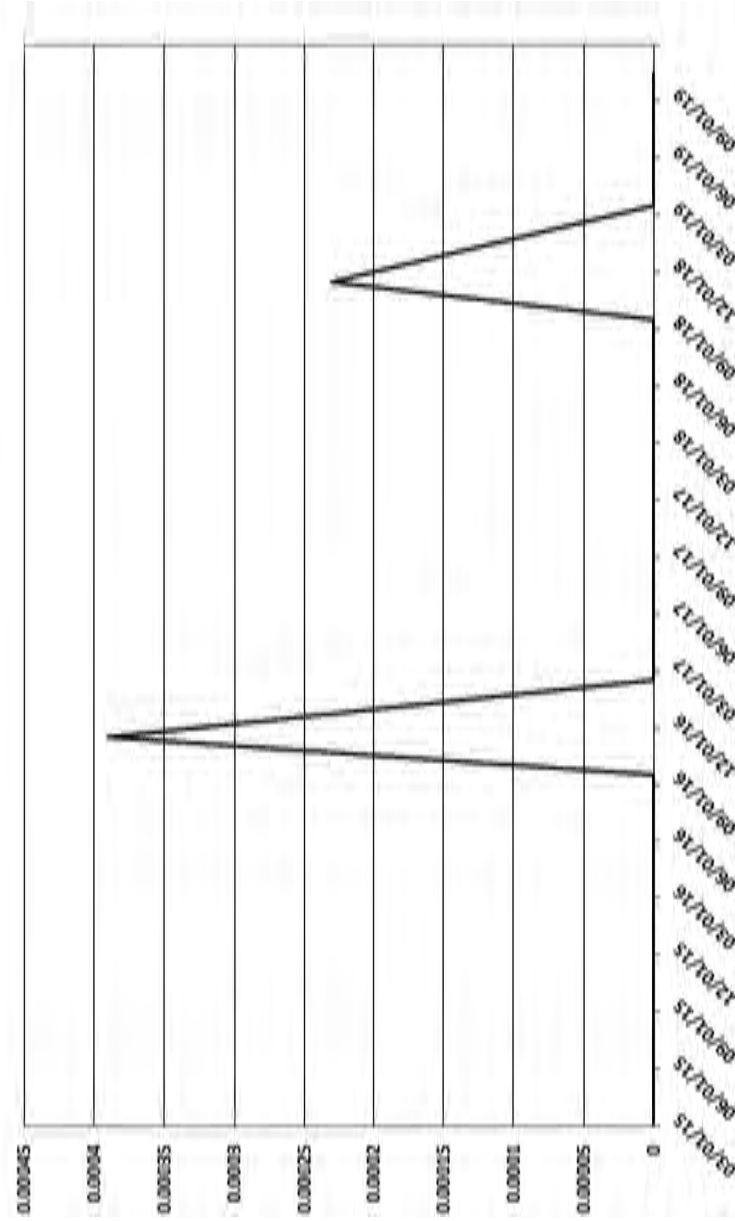
OW-1 TOLUENE (mg/L)



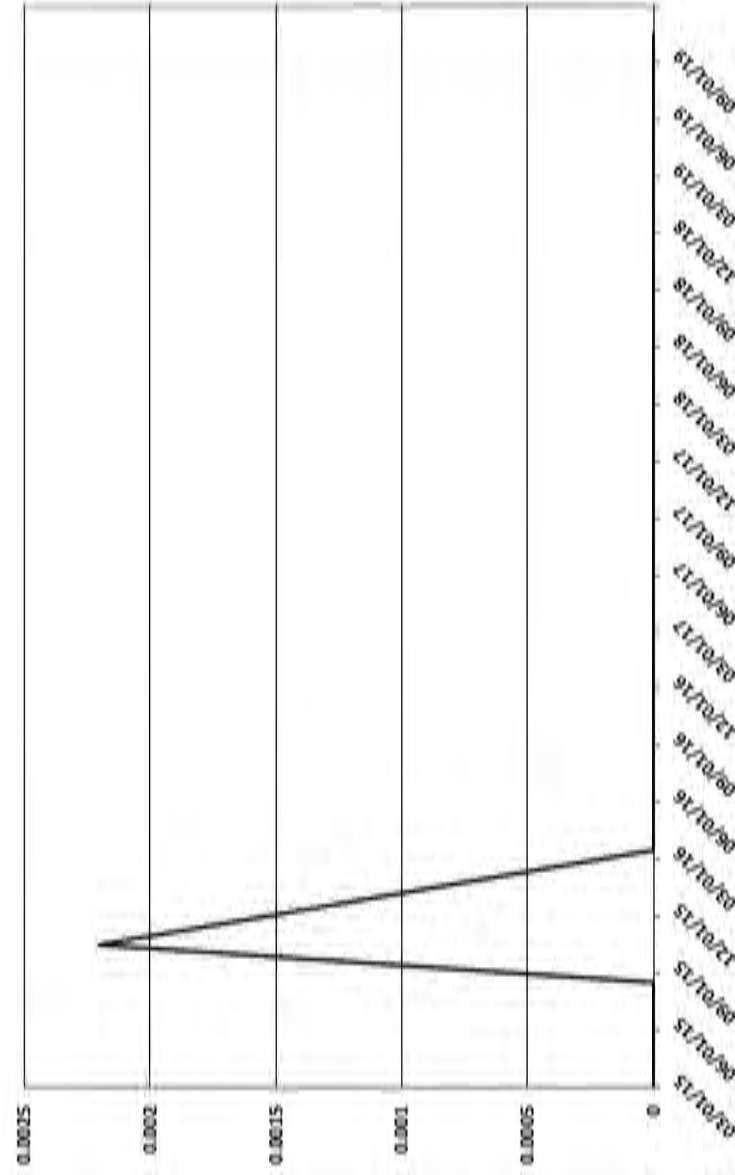
OW-1 MTBE (mg/L)



OW-1 ETHYLBENZENE (mg/L)



OW-1 TOTAL XYLENES (mg/L)



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FIGURE 20.1

BTEX & MTBE THROUGH 2019 - WELL OW-1

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Scale: NONE

Drawn By: REP

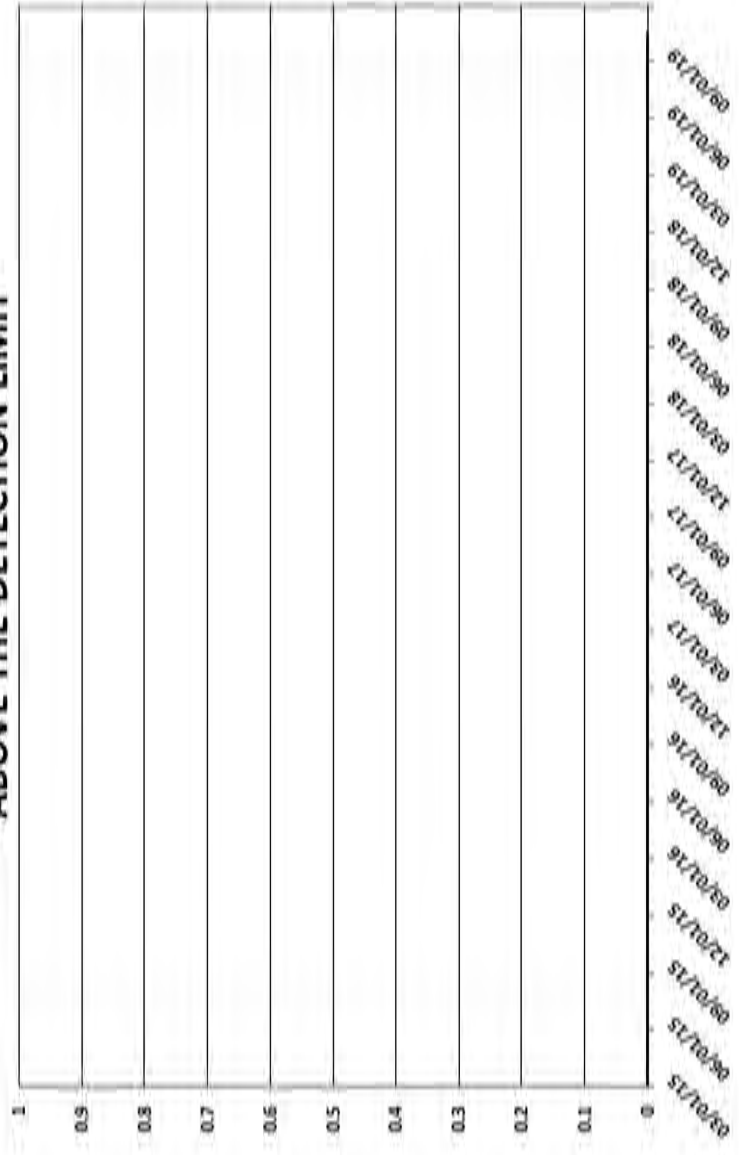
Checked By: BM

Date: 9/15/2020

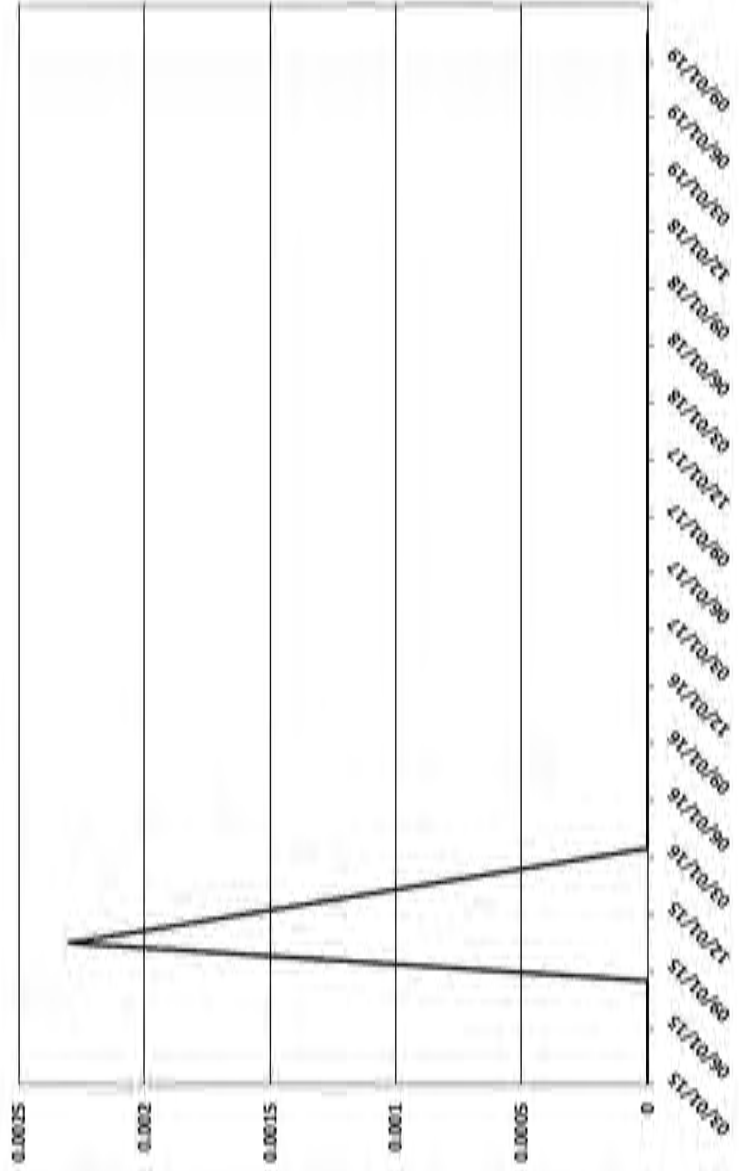
File: 697-GWMON-2019-FIGS-20.1-20.4



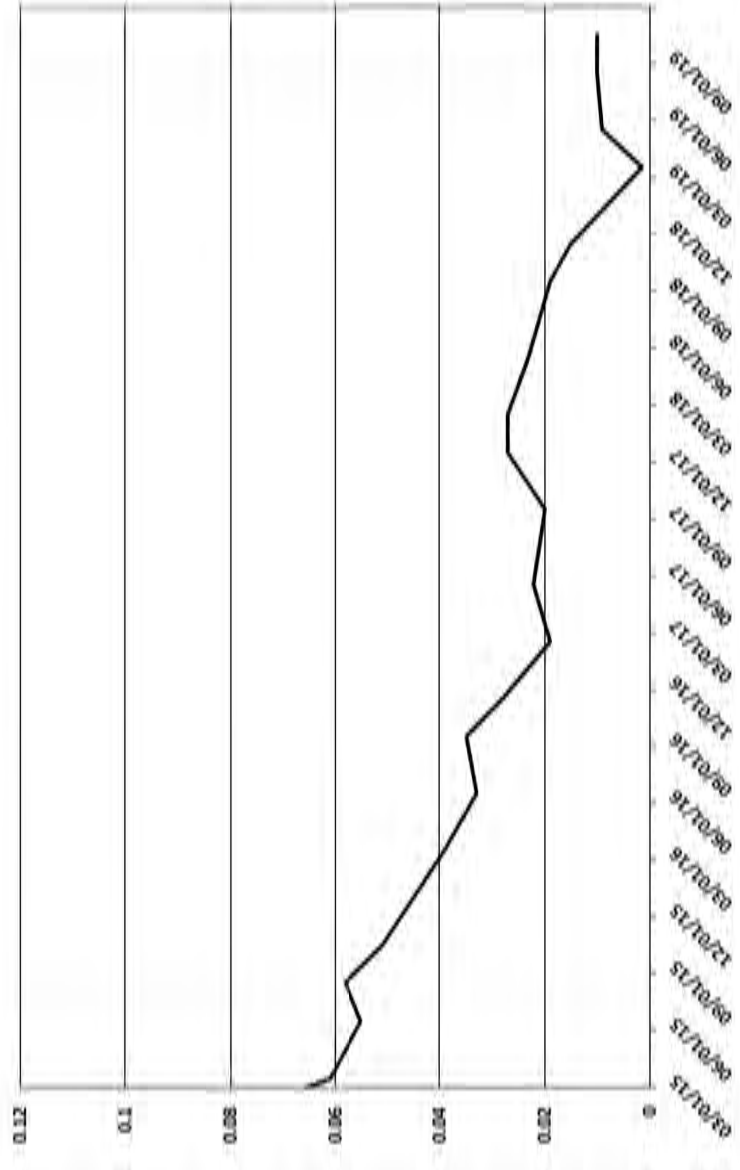
OW-10 BENZENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



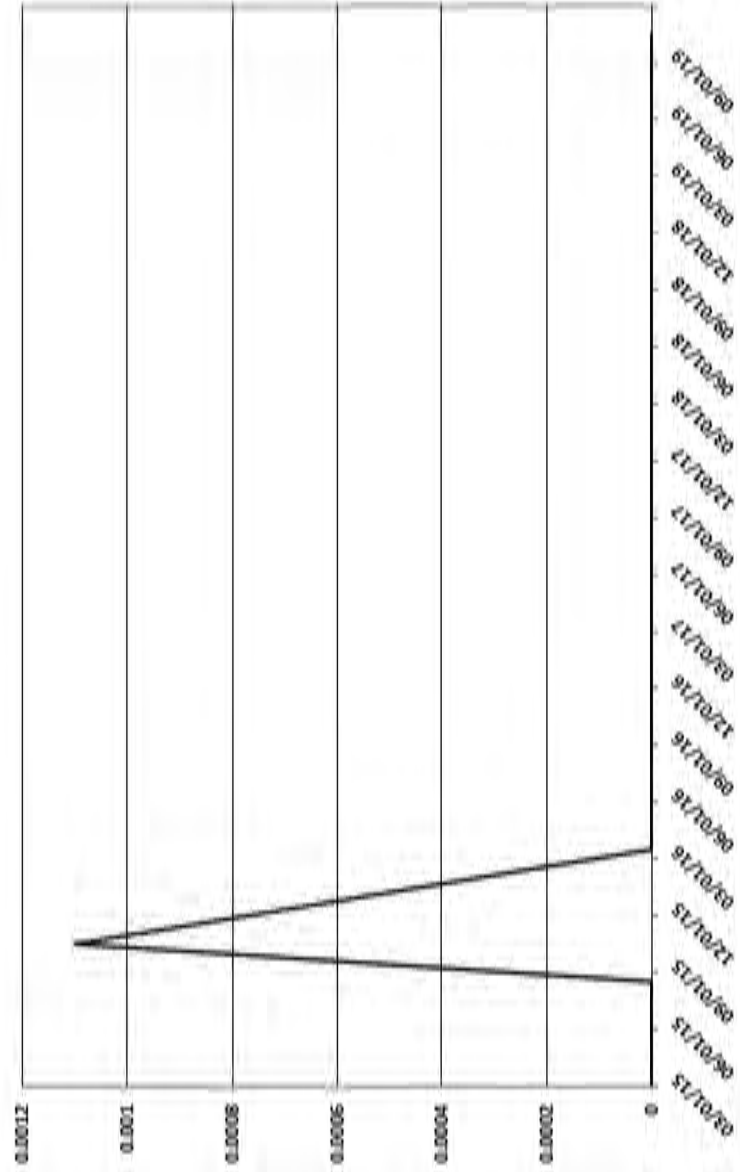
OW-11 TOLUENE (mg/L)



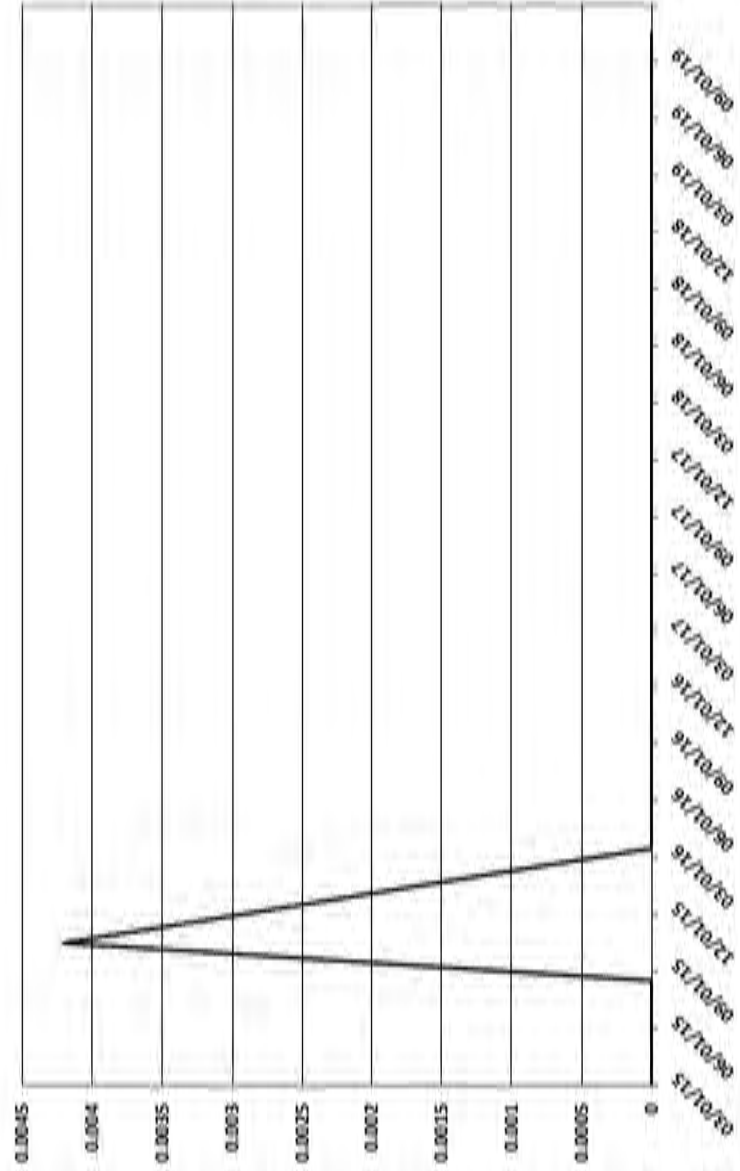
OW-10 MTBE (mg/L)



OW-10 ETHYLBENZENE (mg/L)

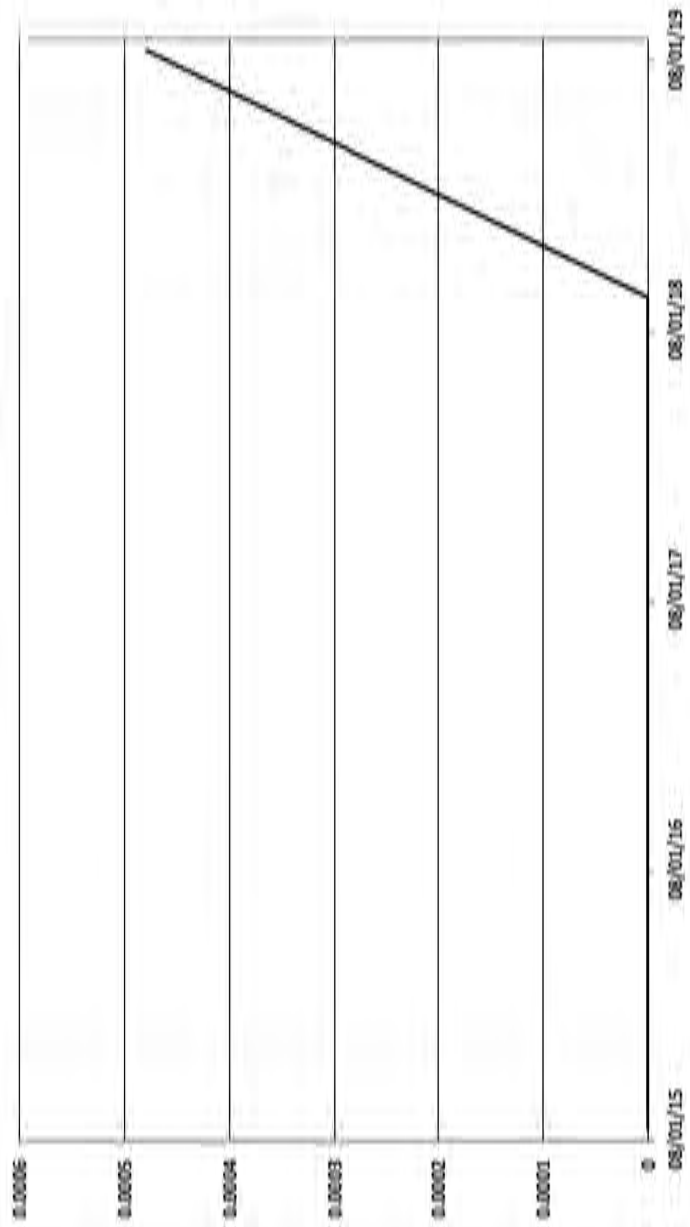


OW-10 TOTAL XYLENES (mg/L)

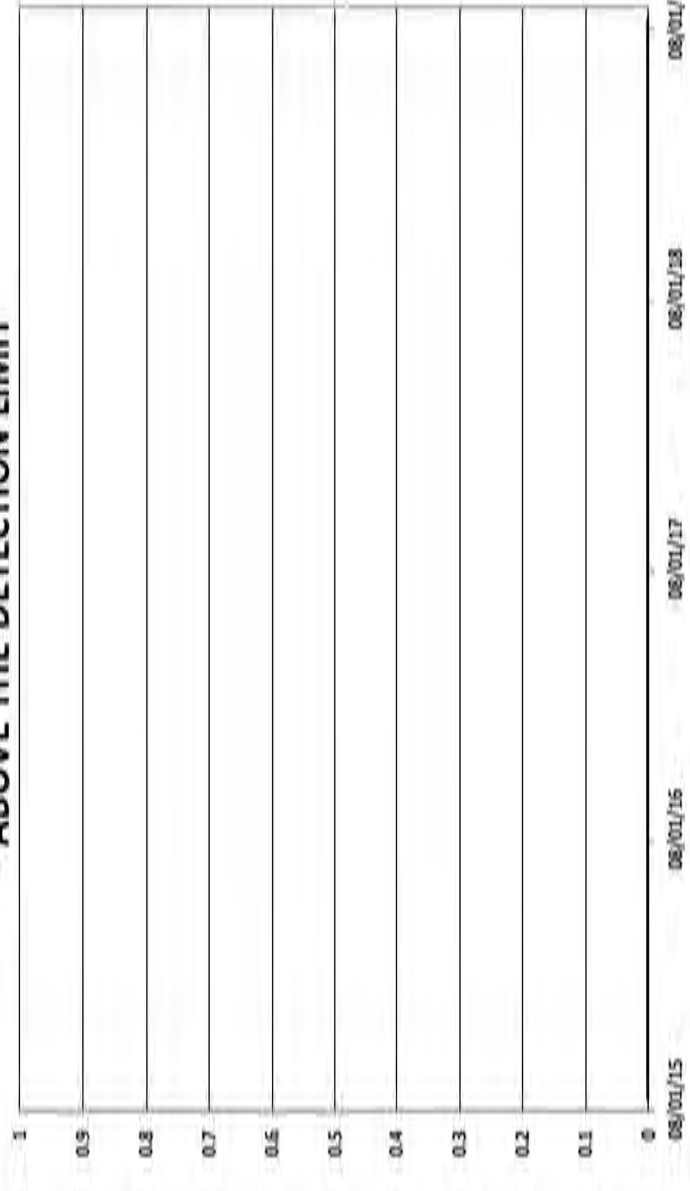




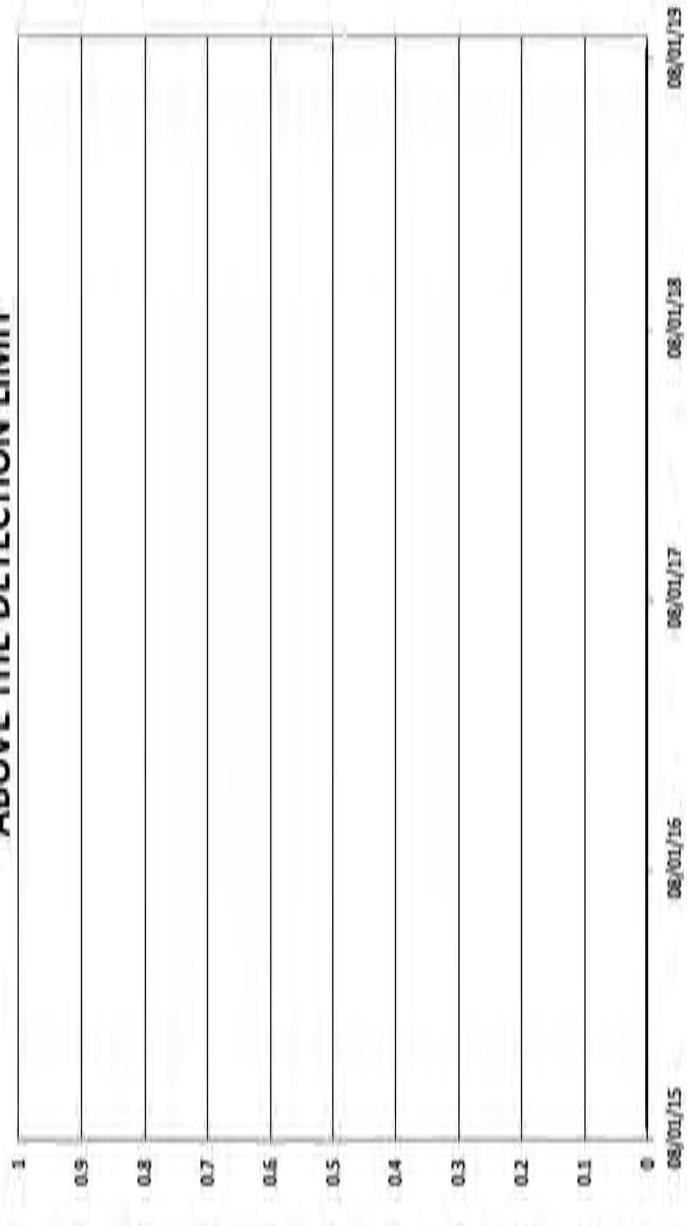
OW-11 BENZENE (mg/L)



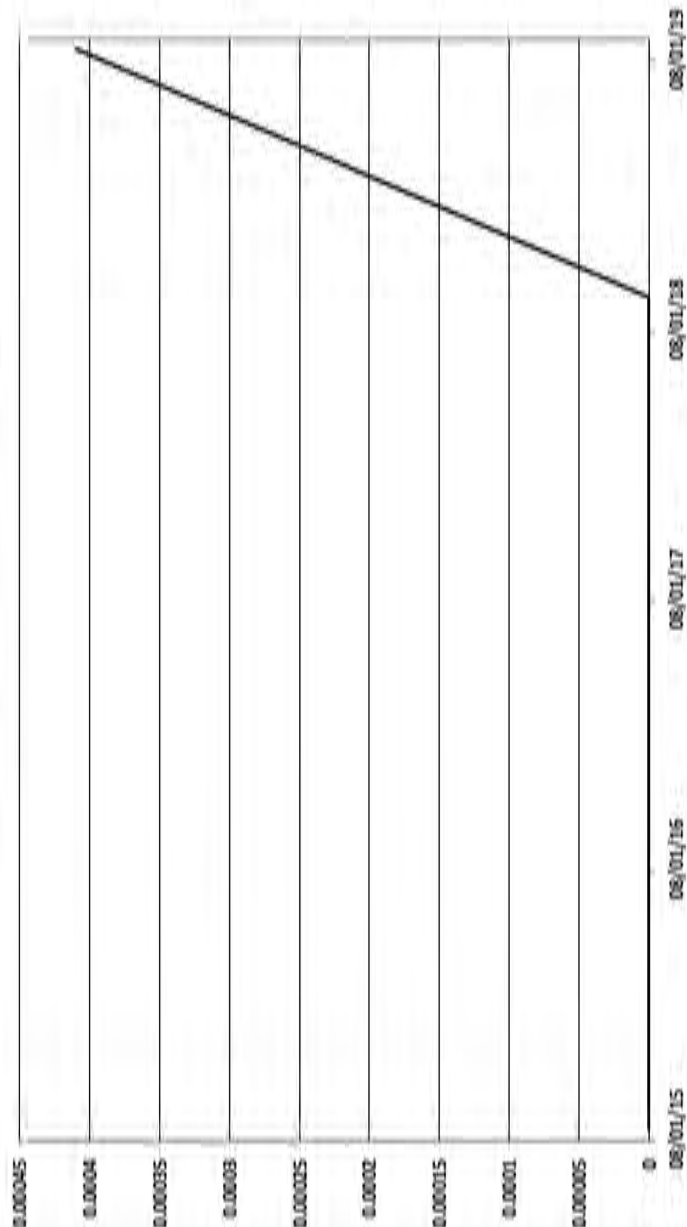
OW-11 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



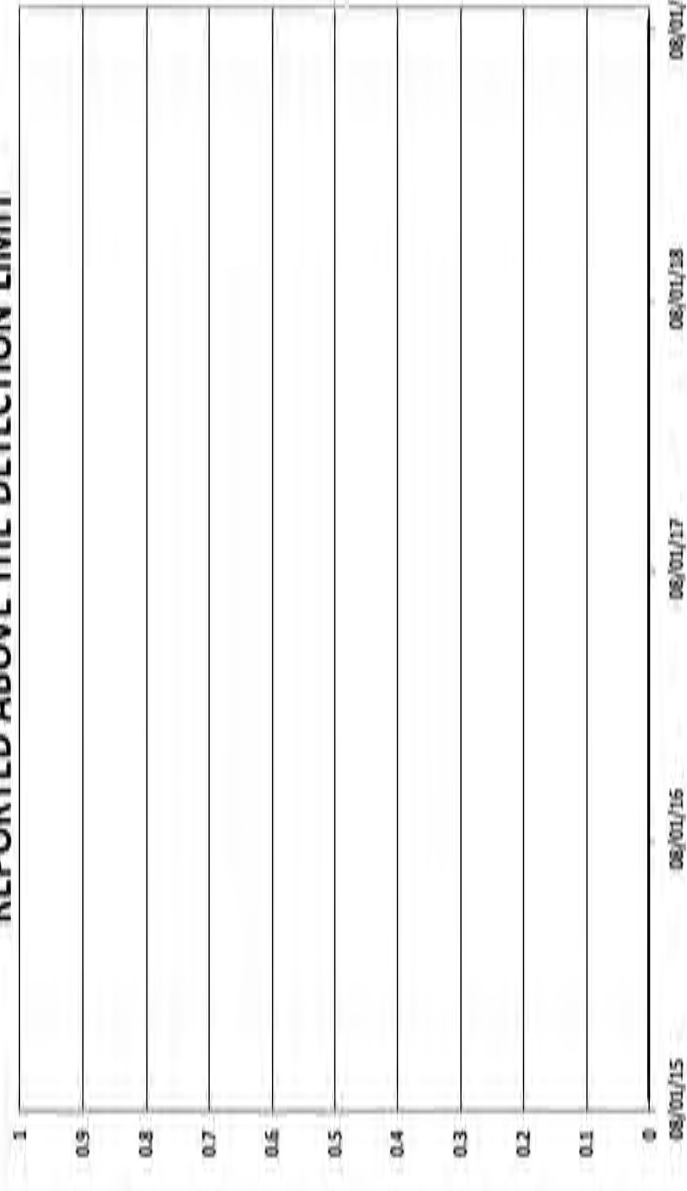
OW-11 MTBE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



OW-11 ETHYLBENZENE (mg/L)



OW-11 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT





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BTEX & MTBE THROUGH 2019 - WELL OW-11

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Drawn By: REP Checked By: BM

Scale: NONE

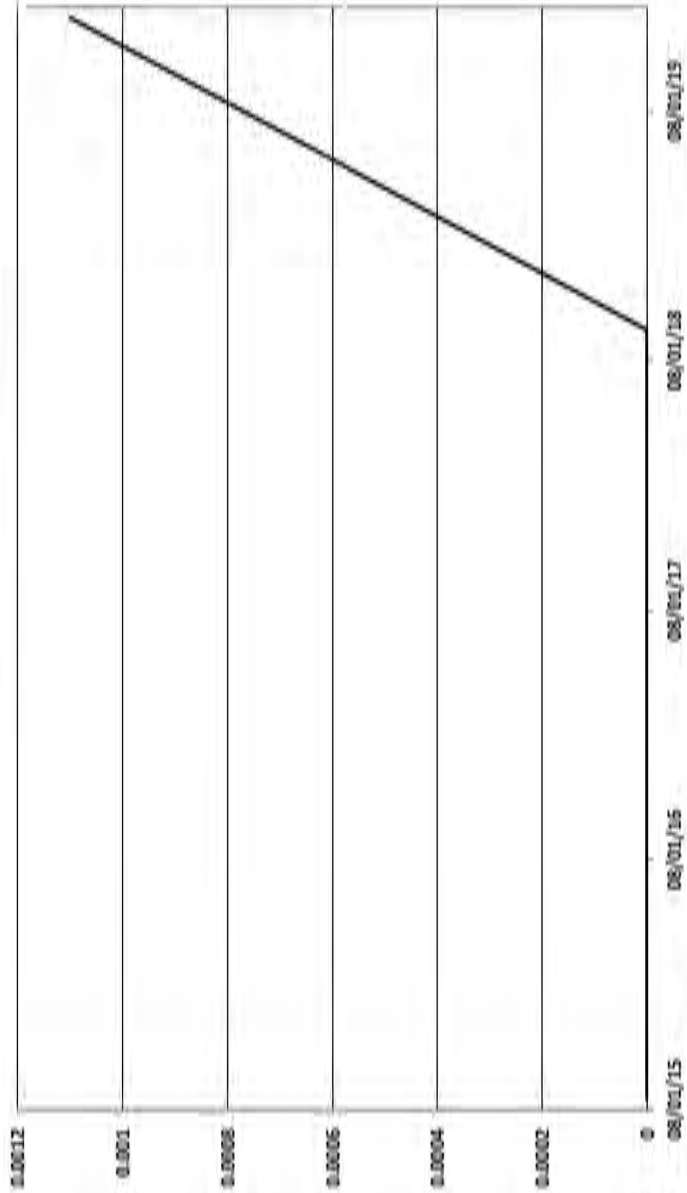
Date: 9/15/2020

File: 697-GWMON-2019-FIGS-20.1-20.4

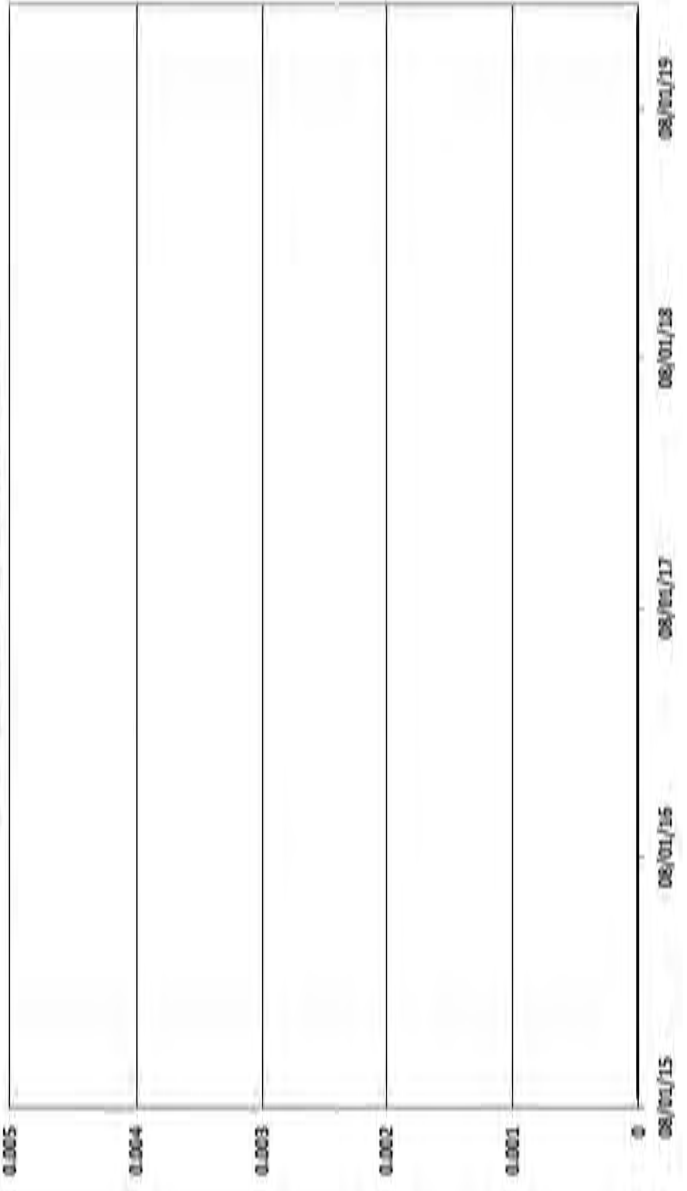
FIGURE 20.3



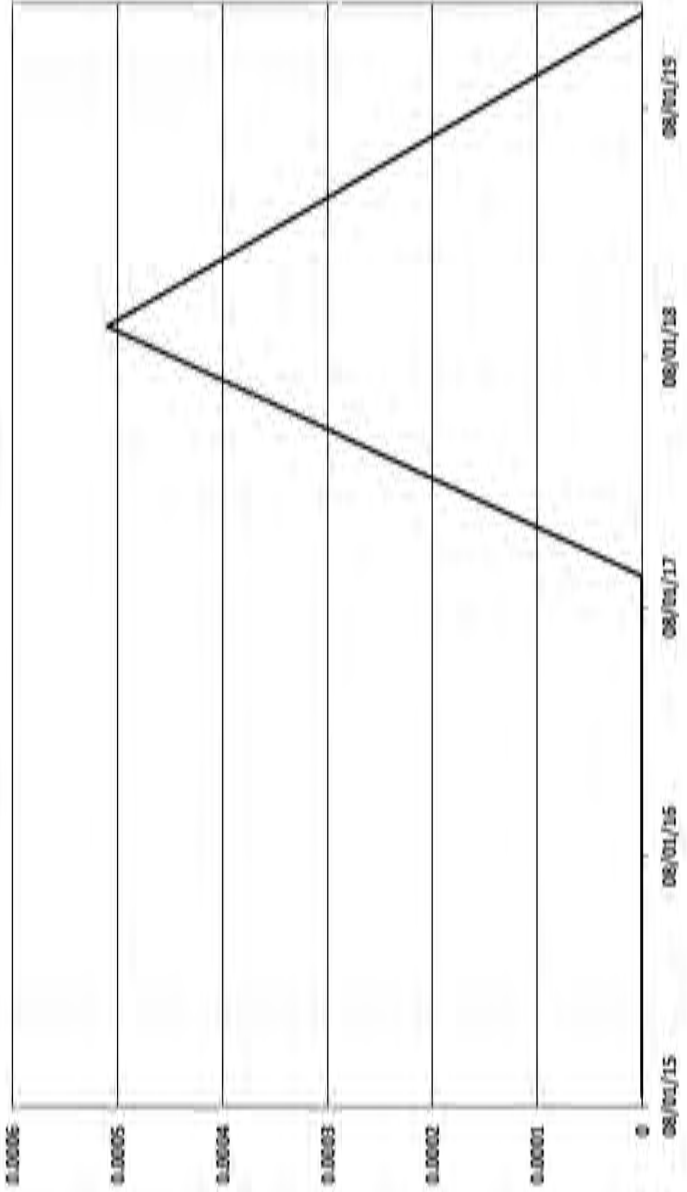
OW-12 BENZENE (mg/L)



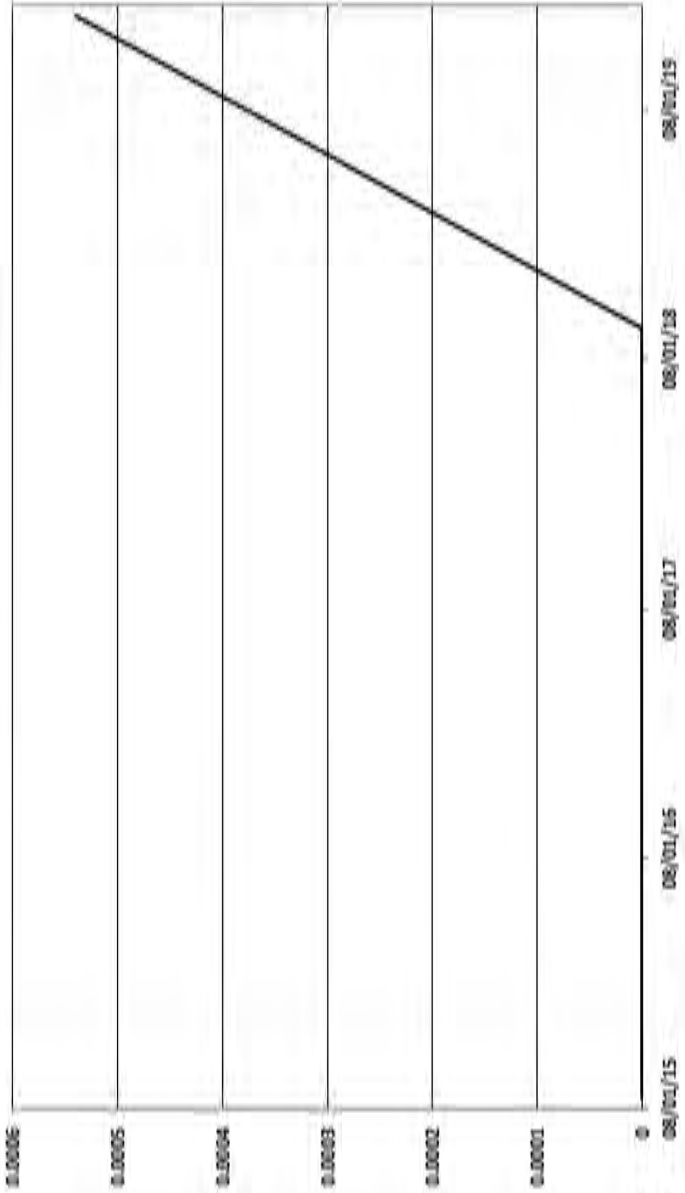
OW-12 TOLUENE - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



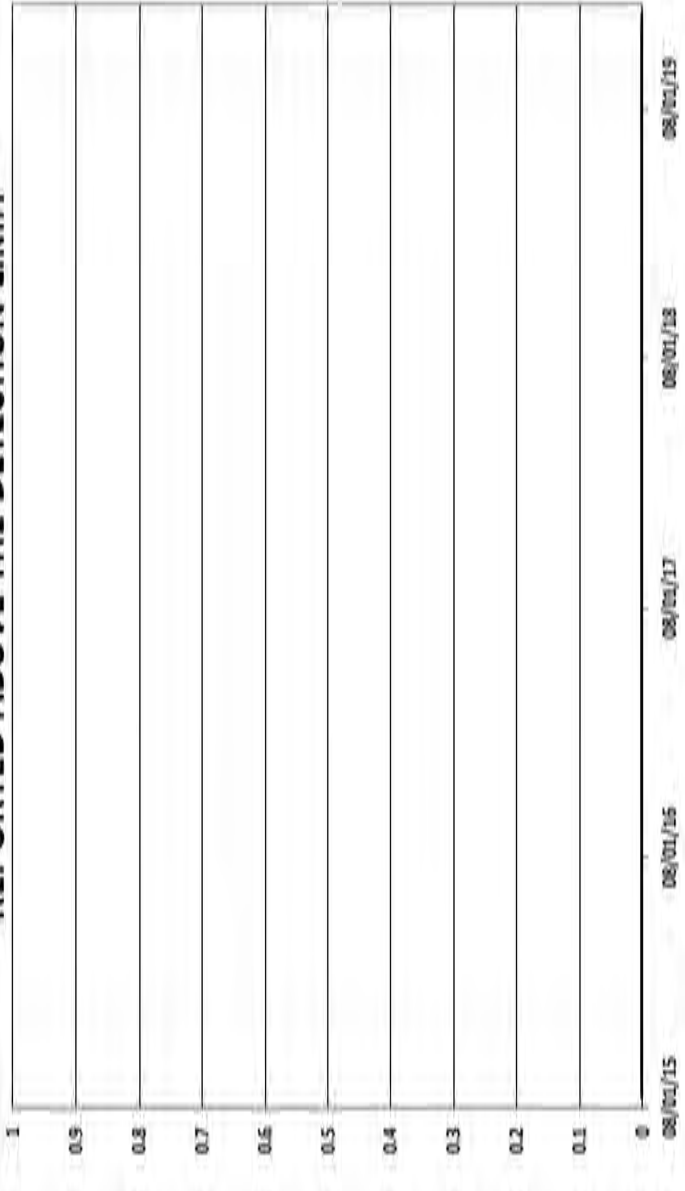
OW-12 MTBE (mg/L)



OW-12 ETHYLBENZENE (mg/L)



OW-12 TOTAL XYLENES - NO CONCENTRATIONS REPORTED ABOVE THE DETECTION LIMIT



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BTEX & MTBE THROUGH 2019 - WELL OW-12

GROUNDWATER MONITORING 2019  
MARATHON PETROLEUM CORP.  
GALLUP, NEW MEXICO

Scale: NONE

Drawn By: REP

Checked By: BM

Date: 9/15/2020

File: 697-GWMON-2019-FIGS-20.1-20.4

FIGURE 20.4





Aerial Map Source: Google Map, 03/18/2016.



MARATHON PETROLEUM COMPANY  
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 06/26/19 | FILE: Mathon--dA162

FIGURE 21  
EVAPORATION PONDS  
FLOW PATH OF WASTEWATER  
AND SAMPLING LOCATIONS



0 500  
SCALE IN FEET

LEGEND

- SAMPLE LOCATION
- FLOW DIRECTION
- UNDERGROUND LINE



SITE LOCATION

**DiSorbo**  
Environmental Consulting Firm

8501 N. MoPac Expy.  
Suite 300  
Austin, Texas 78759



## **APPENDIX A NEW MONITORING WELL LOGS**



Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 18'  
Saturation Depth : 6.5'  
Start Date/Time : 10/11/19 - 10:00  
Finish Date/Time : 10/11/19 - 13:30

WELL NO. MKTF-46

(Sheet 1 of 1)

Elev., TOC (ft. msl) : 6957.60  
Elev., PAD (ft. msl) : 6955.02  
Elev., GL (ft. msl) : 6954.73  
N : 1633095.72  
E : 2546068.60  
Comments : Hand augered to five feet

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results
							DESCRIPTION	
-3								<div>Well No. MKTF-46</div> <div><div>Steel Protective Casing</div><div>Top of Casing 2.87' Above Ground Level</div><div>Concrete Pad 4' x 4' x 4'</div><div>Bentonite Pellets</div><div>2" Sch 40 PVC w/Threaded Joints</div><div>10/20 Sieve Sand Filter Pack</div><div>2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints</div><div>2" Flush Threaded Sch 40 PVC Cap</div></div>
-2								
-1								
0								
1	0			CL	100		SILTY CLAY - low, firm, damp, light reddish brown, no odor.	
2	0			CL	100	X	SILTY CLAY - Similar to above (STA).	
3				CL	100			
4	0			CL	100		SILTY CLAY - STA.	
5	0			CL	100		SILTY CLAY - STA.	
6	105	▼		CL	70	X	SILTY CLAY - STA.	
7	58.5			CL	70	X	SILTY SAND - fine, loose, moist to very moist, brown, no odor.	
8							GRAVELLY CLAY - low, firm, damp, brown, no odor.	
9	0			CH	100		CLAY - high, stiff, damp, brown grading to light grayish brown, small calcareous nodules present.	
10				CL	70		SILTY CLAY - low, firm, damp, grayish brown, no odor.	
11	0			CL	90		SILTY CLAY - STA, compact, light greenish gray silt at base approximately 1.5" thick, damp.	
12	0			SS	70		SILTSTONE - very fine, compact, light olive gray, no odor, dense, damp.	
13	0			SS	60	X	SILTSTONE - STA, harder than above.	
14				SS	-		SILTSTONE - STA.	
15								
16								
17								
18								
19								

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DiSorbo Consulting, LLC

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Austin, Texas 78759  
512-693-4190



Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 14'  
Saturation Depth : 10'  
Start Date/Time : 10/14/19 - 09:40  
Finish Date/Time : 10/14/19 - 12:25

WELL NO. MKTF-47

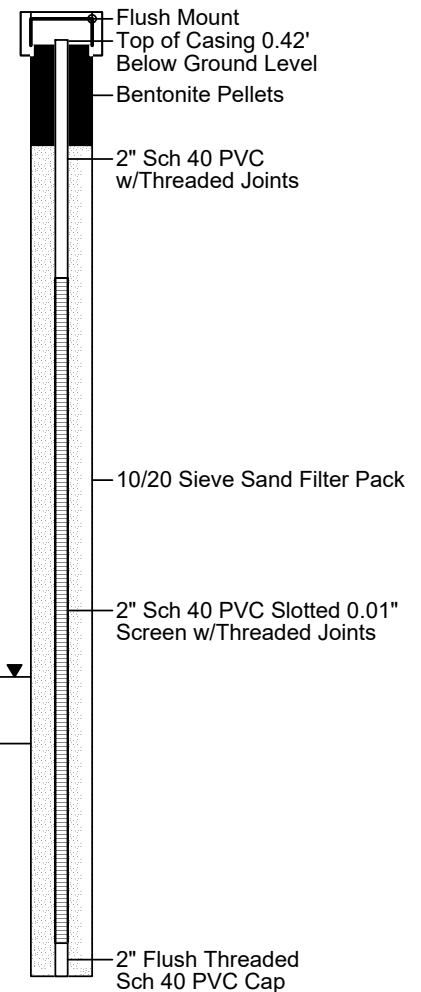
(Sheet 1 of 1)

Elev., TOC (ft. msl) : 6959.09  
Elev., PAD (ft. msl) : 6959.51 (flush w/ asphalt)  
Elev., GL (ft. msl) : 6956.51  
N : 1633268.22  
E : 2546444.16  
Comments : Cored through asphalt.  
Hand augered to 5'.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
-3							
-2							
-1							
0	-				-		ASPHALT
1	1.0						SANDY GRAVELLY CLAY - low, stiff, damp, light reddish brown, no odor, 10-20 mm gravel.
2	4.6			CL	100		
3	4.2						
4	4.5						
5							GRAVELLY CLAY - Similar to above (STA).
6	5.0			CL	70		
7							
8	14.4			CL	50		SILTY CLAY - low, firm, damp, brown, no odor, trace gravel.
9							
10	11.1			CL	80		SILTY CLAY - STA, no odor.
11							
12	11.1			CL/GC	80		GRAVELLY CLAY/CLAYEY GRAVEL - low, firm, damp, brown clay with 5-30 mm gravel, chert and sandstone gravel.
13							
14	10.0			GC	90		CLAYEY GRAVEL - STA, very damp to very moist at base, no odor.
15							
	9.0			SS	90		SILTSTONE - very fine, dense, damp, gray.
				SS	90		SILTSTONE - very fine, very dense, damp, brown with sandstone present, mudstone present at base, no odor.
				SS	-		SILTSTONE - STA.

## Completion Results

Well No. MKTF-47



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512-693-4190



Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2" Split Spoon  
Total Depth : 18'  
Saturation Depth : 4'  
Start Date/Time : 10/14/19 - 13:30  
Finish Date/Time : 10/14/19 - 16:50

## WELL NO. MKTF-48

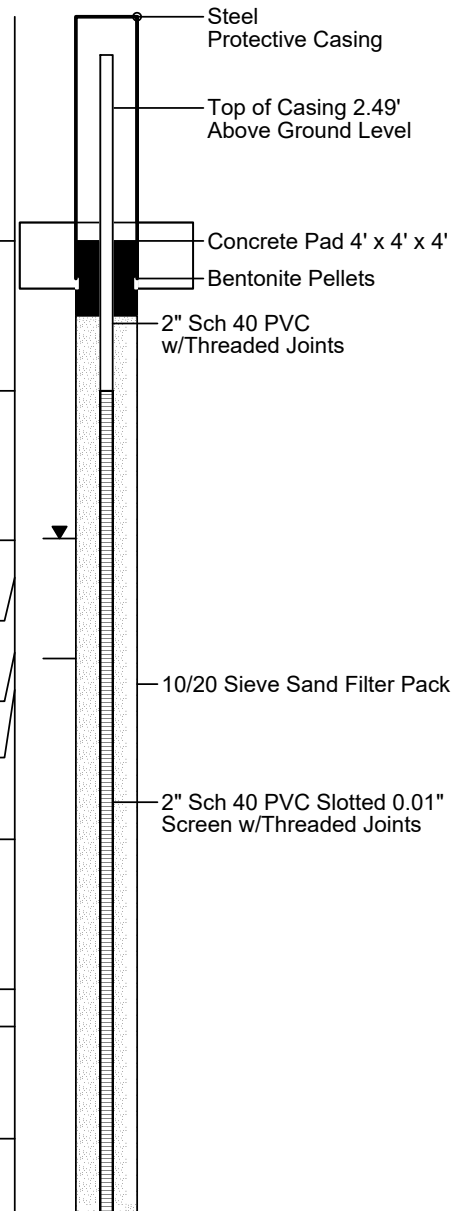
(Sheet 1 of 2)

Elev., TOC (ft. msl) : 6961.73  
Elev., PAD (ft. msl) : 6959.41  
Elev., GL (ft. msl) : 6959.24  
N : 1633715.07  
E : 2546508.76  
Comments : Hand augered to 4.5'.  
Refusal @ 4.5' in gravel.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
-3							
-2							
-1							
0							
1	83.9			CL	100		SILTY CLAY - low, firm, damp, dark brown, odor.
2	181.6			CL	100		SILTY CLAY - Similar to above (STA), black, hydrocarbon odor.
3	513			CL	100		
4	975			SW	100		GRAVELLY SAND - fine, loose, moist to very moist, SPH present, hydrocarbon odor, oily clayey at 4.5' with gravel.
5	1414			CL	90		GRAVELLY SANDY CLAY - low, soft, damp, dark brown, moist to saturated in sand, small gravel lense from 5.25' to 5.5', SPH/oily.
6				CL	90		GRAVELLY CLAY - low, firm, damp, hydrocarbon odor, brown.
7	760			CL	100		SILTY CLAY - low, firm, damp, brown, hydrocarbon odor, light tan silt present in pockets.
8				CH	100		CLAY - high, stiff, damp, brown, hydrocarbon odor, light tan silt in pockets.
9	160			CH	80		CLAY - STA.
10				CL	80		SANDY CLAY - low, firm, damp to moist in clayey sand lenses, hydrocarbon odor, brown.
11	392			CL			
12	511			CL			SILTY CLAY - low, firm, damp, brown grading to gray, trace gravel present, hydrocarbon odor.
13							

## Completion Results

Well No. MKTF-48





Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 18'  
Saturation Depth : 4'  
Start Date/Time : 10/14/19 - 13:30  
Finish Date/Time : 10/14/19 - 16:15

## WELL NO. MKTF-48

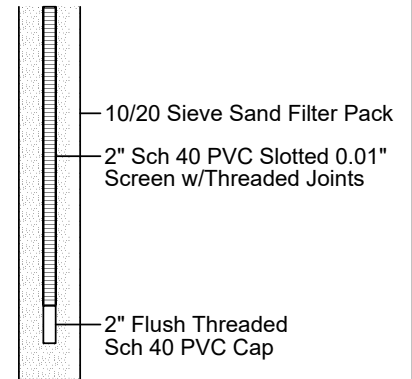
(Sheet 2 of 2)

Elev., TOC (ft. msl) : 6946.76  
Elev., PAD (ft. msl) : 6959.41  
Elev., GL (ft. msl) : 6959.24  
N : 1633715.07  
E : 2546508.76  
Comments : Hand augered to 4.5'.  
Refusal @ 4.5' in gravel

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
13	511		CL	90			
14			SM	90			SILTY SAND/SANDY SILT - very fine grain, compact, damp, gray, hydrocarbon odor.
15	398		SS	100			SILTSTONE - very fine, dense, gray, damp, trace sandstone present, crumbly in lenses, hydrocarbon odor.
16							
17	86		SS	100			SILTSTONE - STA, trace clay and sand, hydrocarbon odor.
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							

## Completion Results

Well No. MKTF-48





Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 28'  
Saturation Depth : 16'  
Start Date/Time : 10/15/19 - 10:30  
Finish Date/Time : 10/15/19 - 15:00

WELL NO. MKTF-49

(Sheet 1 of 2)

Elev., TOC (ft. msl) : 6946.76  
Elev., PAD (ft. msl) : 6944.25  
Elev., GL (ft. msl) : 6944.00  
N : 1634064.06  
E : 2545788.35  
Comments : Hand augered to 5'.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results  Well No. MKTF-49
-3									
-2									
-1									
0								GRAVELLY SILTY CLAY - low, firm, damp, brown, odor.	
1	6.9								
2	9.1			CL	100	X			
3	6.6								
4								CLAY - high, firm, damp, brown, no odor.	
5	4.5			CH	100				
6	9.9			CL	70			GRAVELLY SANDY CLAY - low, soft, damp, brown, no odor.	
7	11.2			SM	70			GRAVELLY CLAYEY SAND - fine, crumbly, damp, brown, no odor.	
8				SM	70			GRAVELLY CLAYEY SAND - Similar to above (STA), no odor.	
9	11.3			CL	80			SANDY CLAY - low, firm, damp, brown, fine grain sand lenses throughout.	
10				CL	80			SANDY CLAY - STA.	
11	14			SM	80			SILTY SAND - fine, loose, damp, brown, no odor.	
12									

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713-955-1230

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8501 N. MoPac Expy, Suite 300  
Austin, Texas 78759  
512-693-4190



Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 28'  
Saturation Depth : 16'  
Start Date/Time : 10/15/19 - 10:30  
Finish Date/Time : 10/15/19 - 15:00

WELL NO. MKTF-49

(Sheet 2 of 2)

Elev., TOC (ft. msl) : 6947.06  
Elev., PAD (ft. msl) : 6944.25  
Elev., GL (ft. msl) : 6944.00  
N : 1634064.06  
E : 2545788.35  
Comments : Hand augered to 5'.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results
							DESCRIPTION	
12	9.7	1600		SC	70		CLAYEY SAND - fine, compact, damp, brown, no odor.	2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
13				CH	80		CLAY - high, firm, damp, dark brown, no odor.	
14				CL/SC	80		CLAYEY SAND/SANDY CLAY - low, soft, damp to moist, dark brown, hydrocarbon odor, very fine grain sand.	
15								CLAYEY SAND - STA, saturated, hydrocarbon odor.
16	-			SC	80			10/20 Sieve Sand Filter Pack
17				SW	70		CLAYEY GRAVELLY SAND - fine, compact to loose, saturated, brown gravel lense at 19.5', hydrocarbon odor.	
18								
19	-			SW	70		GRAVELLY SAND - STA, trace clay, hydrocarbon odor, saturated.	
20				SC/CL	-		CLAYEY SAND /SANDY CLAY - low, firm, very fine sand, moist to very moist, dark brown, hydrocarbon odor.	
21	2245			CL	50		SANDY CLAY - low, firm, damp, brown, hydrocarbon odor, sand in lenses.	
22				CH	70		CLAY - high, stiff, damp, brown, odor.	
23	482			SC/CL			CLAYEY SAND/SANDY CLAY - low, firm, damp, brown, odor, sand in matrix.	
24								
25	20.4							
26	19.7							
27								

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Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 26'  
Saturation Depth : 14'  
Start Date/Time : 10/15/19 - 15:45  
Finish Date/Time : 10/16/19 - 11:15

WELL NO. MKTF-50

(Sheet 1 of 2)

Elev., TOC (ft. msl) : 6942.82  
Elev., PAD (ft. msl) : 6940.26  
Elev., GL (ft. msl) : 6939.68  
N : 1634294.68  
E : 2545881.16  
Comments : Hand augered to refusal at 3'.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results  Well No. MKTF-50
-3									
-2									
-1									
0								GRAVELLY SILTY CLAY - low, firm, damp, brown, no odor.	
1	3.2			CL	100				
2	169			CL	100	X		SILTY CLAY - low, loose, damp, dark brown, odor.	
3	70			CL	100			SILTY CLAY - Similar to above (STA), brown, odor.	
4	158.6			CL	100			SILTY CLAY - STA.	
5	148.9			SM	100			SILTY SAND - fine, loose, brown, faint odor.	
6	494			CL	100			SILTY CLAY - low, firm, damp, brown, faint odor.	
7	889			CL	50	X		SILTY CLAY - low to moderate, firm, damp, gray/brown, odor, becomes sandy at base, damp at base.	
8								SANDY CLAY/CLAYEY SAND - very fine, low plasticity, soft/loose, damper than above, brown, odor.	
9	719			CL/SC	50				
10	1892			SC	80	X		CLAYEY SAND - STA, moist to very moist, odor, dark brown.	
11	15,000			CL	80			CLAY - low, soft, damp, dark brown with black staining, odor, sticky.	
12									

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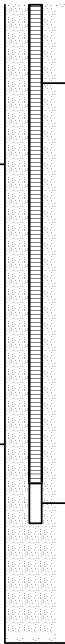
Marathon Petroleum Company, LP  
Gallup Refinery - Up-Gradient MKTF  
Well Installations  
WEST19032-02

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 8"  
Sampling Method : 2' Split Spoon  
Total Depth : 26'  
Saturation Depth : 14'  
Start Date/Time : 10/15/19 - 15:45  
Finish Date/Time : 10/16/19 - 11:15

WELL NO. MKTF-50

(Sheet 2 of 2)

Elev., TOC (ft. msl) : 6942.82  
Elev., PAD (ft. msl) : 6940.26  
Elev., GL (ft. msl) : 6939.68  
N : 1634294.68  
E : 2545881.16  
Comments : Hand augered to refusal at 3'.

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results
							DESCRIPTION	
12	15,000			CL	80		CLAY - STA, oily, black, very soft, strong hydrocarbon odor.	 <p>2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch 40 PVC Cap</p>
13								
14		▼					CLAYEY SILTY SAND - fine, very soft, saturated, black, strong hydrocarbon odor.	
15				SC/SM	80			
16							CLAYEY SILTY SAND - STA, dark brown, saturated, hydrocarbon odor.	
17				SC/SM	80			
18	149			SS	80		SANDSTONE/SILTSTONE/CLAYSTONE - fine grain grading to very fine, compact, dense, damp, odor, gray with traces of brown.	
19	189			SS	90		SILTSTONE - very dense, damp, light gray, faint odor.	
20								
21								
22								
23								
24								
25								
26								
27								



Marathon Petroleum Company, LP  
Gallup Refinery - OW-58A  
WEST20004-Phase 01

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 10"  
Sampling Method : 2' Split Spoon  
Total Depth : 36'  
Saturation Depth : 28'  
Start Date/Time : 10/17/19 - 08:15  
Finish Date/Time : 10/17/19 - 15:25

**WELL NO. OW-58A**  
(Sheet 1 of 2)

Elev., TOC (ft. msl) : 6935.88  
Elev., PAD (ft. msl) : 6933.39  
Elev., GL (ft. msl) : 6932.98  
N : 1634802.47  
E : 2547429.22  
Comments : Hand Augered to five feet

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation SPH - Separate Phase Hydrocarbon	Completion Results
							DESCRIPTION	
-3								<p>Steel Protective Casing</p> <p>Top of Casing 2.9' Above Ground Level</p> <p>Concrete Pad 4' x 4' x 4'</p> <p>Bentonite Pellets</p> <p>4" Sch 40 PVC w/Threaded Joints</p> <p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints</p>
-2								
-1								
0	3.0						GRAVELLY SILTY CLAY - moderate, firm to stiff, damp, brown, odor.	
1	6.8			CL	100			
2	9.5							
3	9.5						CLAY - high, firm, damp, reddish brown, odor, specks of black discoloration.	
4	4.2			CH	100			
5	7.4			CH	70		CLAY - Similar to above (STA), no odor.	
6							CLAY - STA, faint odor.	
7	9.1			CH	50			
8							CLAY - STA, faint odor.	
9	12.7			CH	80			
10							CLAY - high, stiff, damp, reddish brown, odor, black discoloration.	
11	65			CH	90			
12							CLAY - STA, odor, trace very fine grain sand.	
13	121			CH	100			
14							SILTY SANDY CLAY - low, firm, crumbly, damp, brown, odor, fine grain sand, no discoloration.	
15	340			CL	90			
16	757			CL			SILTY SANDY CLAY - STA, stiff, no discoloration, odor.	
17								

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Marathon Petroleum Company, LP  
Gallup Refinery - OW-58A  
WEST20004-Phase 01

Geologist : Tracy Payne  
Drilling Company : Terracon  
Driller : Cothron  
Drilling Rig : CME 55 Track Rig  
Drilling Method : Hollow-Stem Augers 10"  
Sampling Method : 2' Split Spoon  
Total Depth : 36'  
Saturation Depth : 28'  
Start Date/Time : 10/17/19 - 08:15  
Finish Date/Time : 10/17/19 - 15:25

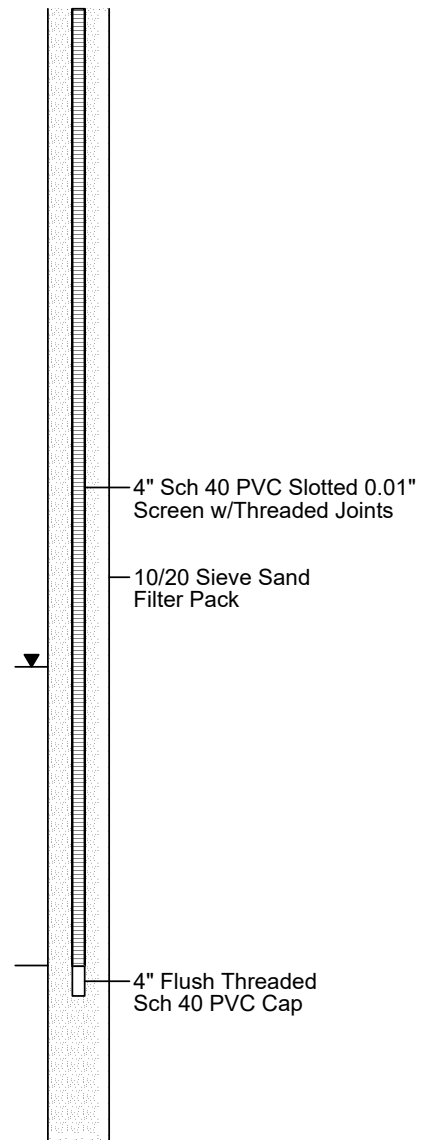
WELL NO. OW-58A  
(Sheet 2 of 2)

Elev., TOC (ft. msl) : 6935.88  
Elev., PAD (ft. msl) : 6933.39  
Elev., GL (ft. msl) : 6932.98  
N : 1634802.47  
E : 2547429.22  
Comments : Hand Augered to five feet

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
17	757			CL	80		
18	326			CL	90		SANDY CLAY - low, stiff, damp, light brown, crumbly, fine grain sand, odor.
19	1001			CL	90		CLAY - moderate, very stiff, damp, brown, odor.
20							CLAY - STA, oily, sweet/chemical odor, glossy oil spots on core.
21	1564			CL	90		
22							CLAY - STA, increase of SPH on core and weeping from clay.
23	1350			CL	90		
24							SILTY CLAY - low, firm, damp, brown, hydrocarbon odor, oil on outside of core and weeping from core.
25	1670			CL	100		
26							SILTY CLAY - moderate, stiff, damp, brown, hydrocarbon odor, silty sand seams at 27', black discoloration, SPH weeping from core.
27	1848			CL	100		
28							SILTY CLAY - STA, saturated silty sand seams approximately 2" thick @ 28', 28.75' & 29.25'.
29	-			CL	100		
30							SILTY CLAY - low, firm to soft, damp to very moist, brown, hydrocarbon odor.
31				SM	100		SILTY SAND - fine, loose to compact, saturated, dark brown, hydrocarbon odor, clayey at base.
32				SM	90		SILTY SAND - STA, saturated, hydrocarbon odor.
33	1429			CH	90		CLAY/SILTY CLAY - moderate to high, soft, damp, brown, hydrocarbon odor.
34							CLAY/SILTY CLAY - STA, hydrocarbon odor.
35	575			CH	90		
36							
37							

## Completion Results

Well OW-58A



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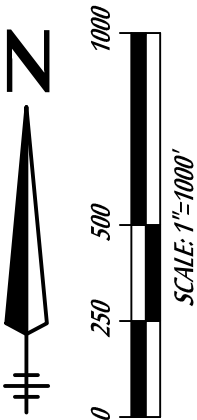
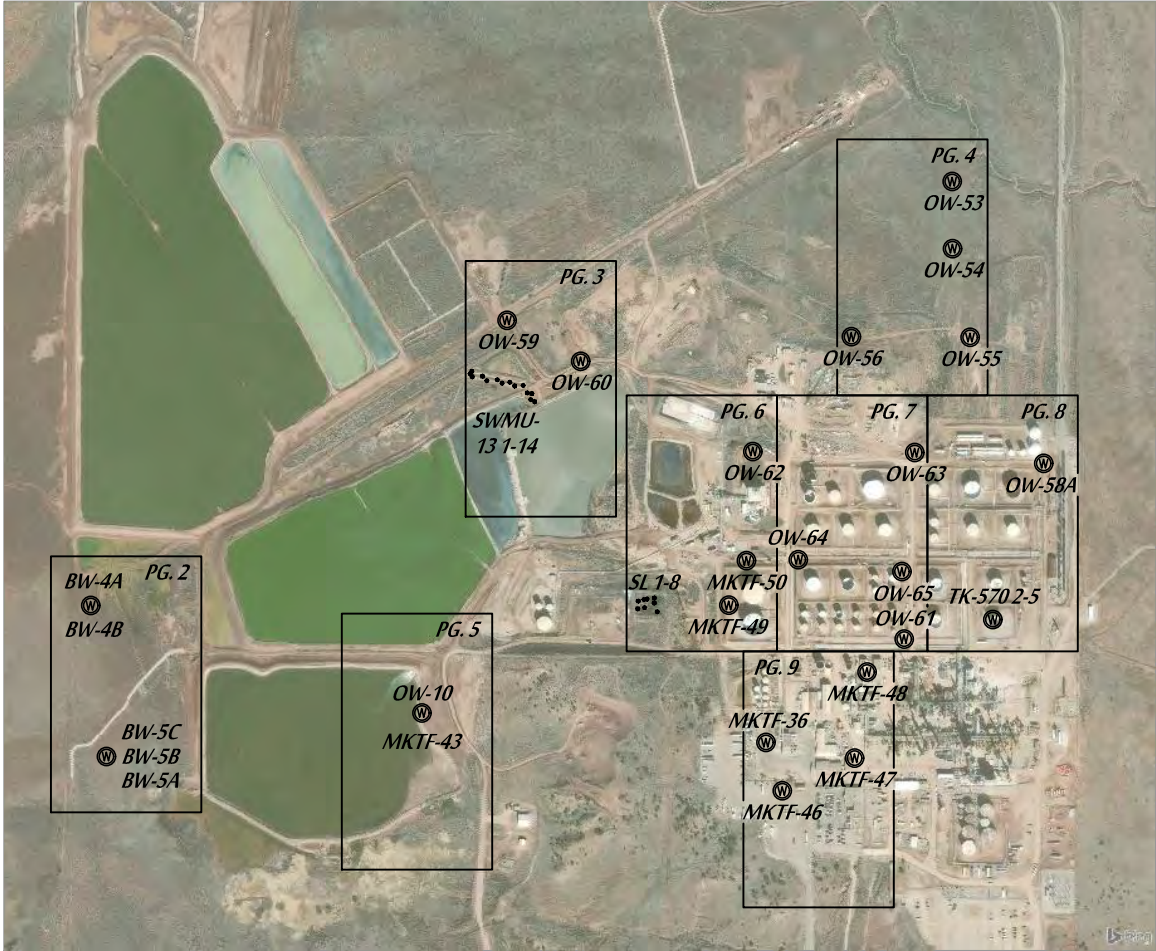


## **APPENDIX B**

### **WELL SURVEY DATA**



MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

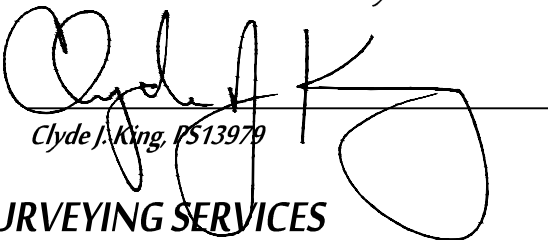


NOTES

- 1 FIELD SURVEY PERFORMED NOVEMBER 18, 2019, 8:00 a.m. to 5:00 p.m.
- 2 FIELD MEASUREMENTS PERFORMED UTILIZING TOPCON 'GR-3' BASE AND ROVER G.P.S. SYSTEM WHICH CAN NOT BE CALIBRATED.
- 3 THE BORE SITES WERE IDENTIFIED BY DISORBO CONSULTING, LLC. PERSONNEL AND WERE VISIBLE AS EVIDENCE OF A BORE HOLE.
- 4 STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING DIFFERENTIAL G.P.S. DERIVED MEASUREMENTS.
- 5 THE COORDINATE LIST SHOWN ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES, ELEVATIONS ARE NAVD88 (-3.37 TO REACH NGVD29).

SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a land division or subdivision as defined by the New Mexico Subdivision Act.

  
Clyde J. King, PS13979

2-19-20  
Date

SYMBOLS LEGEND

- ⊙ MONITORING WELL
- SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

**BW-4A**  
N: 1634063.04 CENTER OF METAL LID  
E: 2542465.11  
Z: 6872.55 TOP CENTER OF METAL LID  
Z: 6872.20 N. TOP OF PVC PIPE  
Z: 6869.68 TOP OF CONCRETE PAD N. OF CASING  
Z: 6869.28 NATURAL GROUND N. OF PAD

**BW-4B**  
N: 1634043.32 CENTER OF METAL LID  
E: 2542462.85  
Z: 6872.68 TOP CENTER OF METAL LID  
Z: 6872.24 N. TOP OF PVC PIPE  
Z: 6869.80 TOP OF CONCRETE PAD N. OF CASING  
Z: 6869.45 NATURAL GROUND N. OF PAD

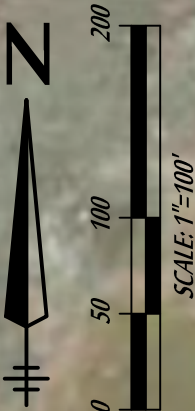
**BW-5C**  
N: 1633279.48 CENTER OF METAL LID  
E: 2542552.85  
Z: 6876.32 TOP CENTER OF METAL LID  
Z: 6875.93 N. TOP OF PVC PIPE  
Z: 6873.31 TOP OF CONCRETE PAD N. OF CASING  
Z: 6872.92 NATURAL GROUND N. OF PAD

**BW-5B**  
N: 1633269.46 CENTER OF METAL LID  
E: 2542551.64  
Z: 6876.24 TOP CENTER OF METAL LID  
Z: 6875.84 N. TOP OF PVC PIPE  
Z: 6873.36 TOP OF CONCRETE PAD N. OF CASING  
Z: 6873.30 NATURAL GROUND N. OF PAD

**BW-5C**  
**BW-5B**  
**BW-5A**

**SYMBOLS LEGEND**  
⊙ MONITORING WELL  
• SOIL BORE

**BW-5A**  
N: 1633259.76 CENTER OF METAL LID  
E: 2542551.42  
Z: 6876.43 TOP CENTER OF METAL LID  
Z: 6876.06 N. TOP OF PVC PIPE  
Z: 6873.39 TOP OF CONCRETE PAD N. OF CASING  
Z: 6873.18 NATURAL GROUND N. OF PAD





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-59  
N: 1635547.23  
E: 2544632.95  
Z: 6889.13 TOP CENTER OF METAL LID  
Z: 6888.66 N. TOP OF PVC PIPE  
Z: 6886.55 TOP OF CONCRETE PAD N. OF CASING  
Z: 6886.40 NATURAL GROUND N. OF PAD

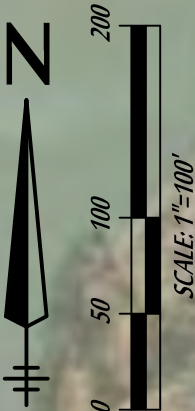
OW-60  
N: 1635335.03  
E: 2545018.18  
Z: 6892.95 TOP CENTER OF METAL LID  
Z: 6892.50 N. TOP OF PVC PIPE  
Z: 6890.03 TOP OF CONCRETE PAD N. OF CASING  
Z: 689.93 NATURAL GROUND N. OF PAD

- SWMU 13-8 •
- SWMU 13-2 •
- SWMU 13-1
- SWMU 13-9
- SWMU 13-3
- SWMU 13-10
- SWMU 13-4
- SWMU 13-11
- SWMU 13-5
- SWMU 13-12
- SWMU 13-13
- SWMU 13-6
- SWMU 13-14
- SWMU 13-7

#	NORTHING	EASTING	GROUND ELEV.
SWMU13-1	1635283.76	2544450.28	6884.38
SWMU13-2	1635255.51	2544452.89	6884.22
SWMU13-3	1635235.05	2544528.80	6883.78
SWMU13-4	1635221.64	2544608.45	6884.65
SWMU13-5	1635207.59	2544674.13	6885.36
SWMU13-6	1635168.07	2544762.81	6887.13
SWMU13-7	1635126.04	2544777.26	6888.17
SWMU13-14	1635136.50	2544756.75	6885.16
SWMU13-13	1635171.39	2544739.77	6884.82
SWMU13-12	1635209.89	2544718.62	6884.45
SWMU13-11	1635226.59	2544648.37	6882.60
SWMU13-10	1635239.56	2544583.37	6882.72
SWMU13-9	1635258.03	2544506.40	6882.14
SWMU13-8	1635270.92	2544442.83	6881.84

SYMBOLS LEGEND

- Ⓜ MONITORING WELL
- SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-53



OW-53  
N: 1636271.72  
E: 2546952.45 CENTER OF METAL LID  
Z: 6914.74 TOP CENTER OF METAL LID  
Z: 6914.38 N. TOP OF PVC PIPE  
Z: 6911.97 TOP OF CONCRETE PAD N. OF CASING  
Z: 6911.71 NATURAL GROUND N. OF PAD

OW-54



OW-54  
N: 1635922.19  
E: 2546953.94 CENTER OF METAL LID  
Z: 6919.34 TOP CENTER OF METAL LID  
Z: 6918.92 N. TOP OF PVC PIPE  
Z: 6916.36 TOP OF CONCRETE PAD N. OF CASING  
Z: 6916.27 NATURAL GROUND N. OF PAD

OW-55  
N: 1635460.37  
E: 2547045.34 CENTER OF METAL LID  
Z: 6923.66 TOP CENTER OF METAL LID  
Z: 6923.25 N. TOP OF PVC PIPE  
Z: 6921.09 TOP OF CONCRETE PAD N. OF CASING  
Z: 6921.02 NATURAL GROUND N. OF PAD

OW-56



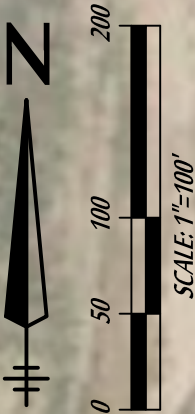
OW-56  
N: 1635463.15  
E: 2546427.02 CENTER OF METAL LID  
Z: 6920.67 TOP CENTER OF METAL LID  
Z: 6920.18 N. TOP OF PVC PIPE  
Z: 6917.73 TOP OF CONCRETE PAD N. OF CASING  
Z: 6917.61 NATURAL GROUND N. OF PAD

OW-55



SYMBOLS LEGEND

- Ⓜ MONITORING WELL
- SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-10  
N: 1633508.16 CENTER OF METAL LID  
E: 2544188.11  
Z: 6882.74 TOP CENTER OF METAL LID  
Z: 6882.41 N. TOP OF PVC PIPE  
Z: 6879.71 TOP OF CONCRETE PAD N. OF CASING  
Z: 6879.45 NATURAL GROUND N. OF PAD

OW-10

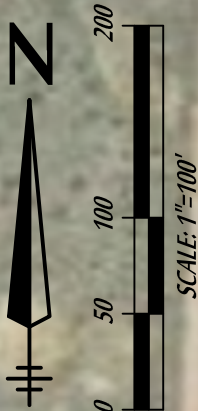


MKTF-43

MKTF-43  
N: 1633490.95 CENTER OF METAL LID  
E: 2544190.29  
Z: 6882.20 TOP CENTER OF METAL LID  
Z: 6881.82 N. TOP OF PVC PIPE  
Z: 6879.61 TOP OF CONCRETE PAD N. OF CASING  
Z: 6879.16 NATURAL GROUND N. OF PAD

SYMBOLS LEGEND

- ⊙ MONITORING WELL
- SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-62

OW-62  
N: 1634865.81  
E: 2545913.84  
Z: 6936.61  
Z: 6936.09  
Z: 6933.51  
Z: 6933.21

MKTF-50

MKTF-50  
N: 1634294.68  
E: 2545881.16  
Z: 6943.15  
Z: 6942.82  
Z: 6940.26  
Z: 6939.68

MKTF-50

#	NORTHING	EASTING	GROUND ELEV.
SL1	1634031.88	2545416.32	6912.71
SL2	1634076.89	2545400.90	6910.74
SL3	1634102.58	2545401.63	6910.01
SL4	1634097.56	2545363.76	6909.37
SL5	1634087.00	2545317.94	6909.72
SL6	1634094.95	2545346.84	6909.54
SL7	1634047.08	2545314.94	6908.81
SL8	1634052.67	2545350.02	6909.67

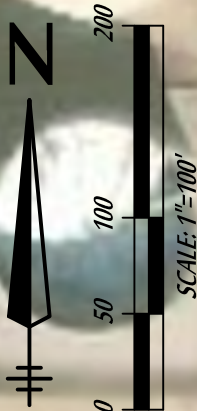
MKTF-49

MKTF-49  
N: 1634064.06  
E: 2545788.35  
Z: 6947.06  
Z: 6946.76  
Z: 6944.25  
Z: 6944.00

MKTF-49

SYMBOLS LEGEND

- MONITORING WELL
- SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-63

OW-63  
N: 1634859.85  
E: 2546756.20 CENTER OF METAL LID  
Z: 6934.20 TOP CENTER OF METAL LID  
Z: 6933.87 N. TOP OF PVC PIPE  
Z: 6931.21 TOP OF CONCRETE PAD N. OF CASING  
Z: 6930.87 NATURAL GROUND N. OF PAD

OW-64

N: 1634301.16  
E: 2546150.83 CENTER OF METAL LID  
Z: 6946.67 TOP CENTER OF METAL LID  
Z: 6946.09 N. TOP OF PVC PIPE  
Z: 6943.90 TOP OF CONCRETE PAD N. OF CASING  
Z: 6943.32 NATURAL GROUND N. OF PAD

OW-65

N: 1634238.04  
E: 2546691.91 CENTER OF METAL LID  
Z: 6953.23 TOP CENTER OF METAL LID  
Z: 6952.83 N. TOP OF PVC PIPE  
Z: 6950.43 TOP OF CONCRETE PAD N. OF CASING  
Z: 6949.95 NATURAL GROUND N. OF PAD

OW-64

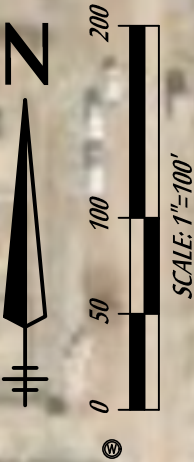
OW-65

SYMBOLS LEGEND

- Ⓜ MONITORING WELL
- SOIL BORE

OW-61

N: 1633887.50  
E: 2546702.23 CENTER OF METAL LID  
Z: 6962.75 TOP CENTER OF METAL LID  
Z: 6961.88 N. TOP OF PVC PIPE  
Z: 6959.69 TOP OF CONCRETE PAD N. OF CASING  
Z: 6959.29 NATURAL GROUND N. OF PAD



OW-61



MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

OW-58A

OW-58A  
N: 1634802.47  
E: 2547429.22 CENTER OF METAL LID  
Z: 6936.21 TOP CENTER OF METAL LID  
Z: 6935.88 N. TOP OF PVC PIPE  
Z: 6933.39 TOP OF CONCRETE PAD N. OF CASING  
Z: 6932.98 NATURAL GROUND N. OF PAD

TK570-2  
N: 1634030.67  
E: 2547163.97 CENTER OF 2" PVC PIPE  
Z: 6960.54 N. TOP OF PVC PIPE  
Z: 6957.39 NATURAL GROUND N. OF PIPE

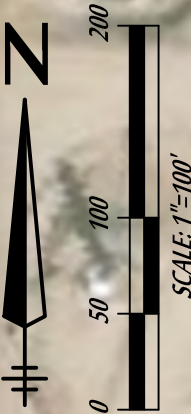
TK570-3  
N: 1633996.91  
E: 2547121.06 CENTER OF 2" PVC PIPE  
Z: 6960.52 N. TOP OF PVC PIPE  
Z: 6957.51 NATURAL GROUND N. OF PIPE

TK570-5  
N: 1633985.24  
E: 2547202.44 CENTER OF 2" PVC PIPE  
Z: 6961.05 N. TOP OF PVC PIPE  
Z: 6958.05 NATURAL GROUND N. OF PIPE

TK570-4  
N: 1633947.49  
E: 2547160.56 CENTER OF 2" PVC PIPE  
Z: 6960.38 N. TOP OF PVC PIPE  
Z: 6957.44 NATURAL GROUND N. OF PIPE

TK 570-2  
TK 570-3  
TK 570-5  
TK 570-4

SYMBOLS LEGEND  
Ⓜ MONITORING WELL  
• SOIL BORE





MONITORING WELL and BORE SITE SURVEY  
in Sections 28 & 33, T15N, R15W, N.M.P.M.,  
Marathon Gallup Refinery, Jamestown,  
McKinley County, New Mexico, U.S.A.

Ⓜ **MKTF-48**

**MKTF-48**  
N: 1633715.07    CENTER OF METAL LID  
E: 2546508.76  
Z: 6961.98 TOP CENTER OF METAL LID  
Z: 6961.73 N. TOP OF PVC PIPE  
Z: 6959.41 TOP OF CONCRETE PAD N. OF CASING  
Z: 6959.24 NATURAL GROUND N. OF PAD

**MKTF-36**  
N: 1633349.44    CENTER OF METAL LID  
E: 2545982.46  
Z: 6953.90 TOP CENTER OF METAL LID  
Z: 6953.51 N. TOP OF PVC PIPE  
Z: 6953.90 TOP OF ASPHALT PAVING  
LID SET FLUSH IN ASPHALT

**MKTF-36**  
Ⓜ

**MKTF-47**  
N: 1633268.22    CENTER OF METAL LID  
E: 2546444.16  
Z: 6959.51 TOP CENTER OF METAL LID  
Z: 6959.09 N. TOP OF PVC PIPE  
Z: 6959.51 TOP OF ASPHALT PAVING  
LID SET FLUSH IN ASPHALT

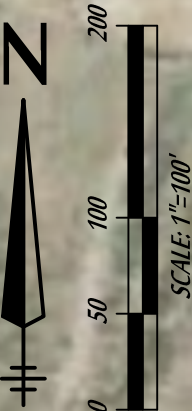
**MKTF-47**  
Ⓜ

**MKTF-46**  
N: 1633095.72    CENTER OF METAL LID  
E: 2546068.60  
Z: 6957.99 TOP CENTER OF METAL LID  
Z: 6957.60 N. TOP OF PVC PIPE  
Z: 6955.02 TOP OF CONCRETE PAD N. OF CASING  
Z: 6954.73 NATURAL GROUND N. OF PAD

**MKTF-46**  
Ⓜ

SYMBOLS LEGEND

- Ⓜ    MONITORING WELL
- SOIL BORE





## **APPENDIX C**

### **SEPARATE PHASE HYDROCARBON RECOVERY LOGS**



**APPENDIX C**  
**ESTIMATED ANNUAL RECOVERY VOLUMES 2005 THRU 2019**

RW-1				RW-2				RW-5				RW-6			
Year	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)	Year	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)	Year	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)	Year	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)
2005	25.9	431.5	1210.5	2005	NA	NA	NA	2005	4.22	17	NR	2005	4.73	17	NR
2006	6.25	23.52	1107	2006	NA	NA	NA	2006	1.52	1.75	NR	2006	3.12	4.75	NR
2007	7.45	1.72	148.5	2007	NA	NA	NA	2007	4.33	7.25	NR	2007	3.88	12.28	NR
2008	18	3.99	152	2008	NA	NA	NA	2008	3.35	0.43	68	2008	2.95	0.37	68
2009	2.61	1.78	338	2009	NA	NA	NA	2009	0.07	0.05	15	2009	0.8	0.22	57
2010	0.53	0.66	128	2010	NA	NA	NA	2010	0	0	0	2010	0.65	0.15	60
2011	0.39	0.42	165	2011	NA	NA	NA	2011	0	0	71	2011	0.12	0.22	110
2012	1.54	0.97	137	2012	NA	NA	NA	2012	0	0	50	2012	0	0	67
2013	15.94	2.328	86	2013	NA	NA	NA	2013	0	0	55	2013	0	0	70
2014	13.18	2.37	83	2014	NA	NA	NA	2014	0	0	51	2014	0	0	51
2015	13.39	2	54	2015	NA	NA	NA	2015	0	0	48	2015	0	0	54
2016	13.56	8.5	53	2016	NA	NA	NA	2016	0	0	72	2016	0	0	72
2017	7.23	11	42	2017	NA	NA	NA	2017	23.44	34	61	2017	38.73	31	50
2018	4.01	1	1.5	2018	NA	NA	NA	2018	19.2	0	0	2018	16.51	0	0
2019	NR	0	195.8	2019	NR	0	448.25	2019	NR	15	231	2019	NR	30	1084.05
<b>TOTAL</b>		<b>491.758</b>	<b>3901.3</b>	<b>TOTAL</b>		<b>0</b>	<b>448.25</b>	<b>TOTAL</b>		<b>75.48</b>	<b>722</b>	<b>TOTAL</b>		<b>95.99</b>	<b>1743.05</b>

**NOTES:**

NR - Not recorded

1) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.



**APPENDIX C - RW-1 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>2</sup> (ft)	Product Bailed or Purged <sup>2</sup> (gal)	Water Purged <sup>2</sup> (gal)
02/22/05	8:30	1st	NR	Start	32.46	36.5	4.04	14	NR
03/02/05	7:45	1st	NR	Start	32.42	36.44	4.02	9	NR
03/08/05	8:30	1st	NR	Start	31.92	36.35	4.43	15	NR
03/09/05	830	1st	NR	Start	31.92	37.5	5.58	4	NR
3/11 to 3/18/05	NR	1st	NR	Start	NR	NR	NR	74	NR
3/18 to 3/23/05	NR	1st	Pump	Continue pumping	NR	NR	NR	48	NR
3/23 to 4/1/05	NR	1st	Pump	Continue pumping	NR	NR	NR	62	NR
4/1 To 4/4/05		2nd	Pump	Pump shutdown to measure	NR	NR	NR	27	NR
04/05/05	11:30	2nd	Pump		34.75	38.92	4.17	NR	NR
4/4 to 4/15/05	11:00	2nd	Pump	Continue pumping	NR	NR	NR	50	NR
4/15 to 5/5/05	12:30	2nd	Pump	Continue pumping	NR	NR	NR	45	154
5/5 to 6/17/05	11:30	2nd	Pump	Continue pumping	NR	NR	NR	24	196
06/27/05	14:30	2nd		Pump shutdown to measure	NR	NR	NR	NR	NR
06/28/05	11:30	2nd			32.46	33.25	0.79	NR	NR
06/28/05		2nd	Pump	Continue pumping	NR	NR	NR	NR	NR
6/17 to 7/8/05	10:30	2nd	Pump	Continue pumping	NR	NR	NR	18	146
7/8 to 8/9/05	13:30	3rd	Pump	Continue pumping	NR	NR	NR	28	350
8/9 to 9/16/05	11:35	3rd			36.46	36.54	0.08	8	240
12/05/05	13:15	4th			31.92	34.71	2.79	NR	NR
12/08/05	14:00	4th	Pump	Start	NR	NR	NR	NR	NR
12/22/05	15:30	4th		stop	NR	NR	NR	5	120
12/29/05	14:00	4th	Bailer	Hand bailed	NR	NR	NR	0.5	4.5
03/16/06	13:00	1st.			NR	NR	NR	NR	NR
03/16/06	14:30	1st.	Pump	Start	32.23	34.48	2.25	NR	NR
03/23/06	14:30	1st.		Stop	NR	NR	NR	NR	NR
03/27/06	15:30	1st.	Pump	Start	NR	NR	NR	NR	NR
03/31/06	11:30	1st.	Pump	Continue pumping	NR	NR	NR	7	174
04/03/06	11:30	2nd		Stop	NR	NR	NR	1	38
04/04/06	11:00	2nd			32.75	33.08	0.33	NR	NR
06/06/06	13:00	2nd			32.39	34.54	2.15	NR	NR
06/08/06	15:00	2nd	Pump	Start	NR	NR	NR	NR	NR
06/29/06	10:00	2nd		Stop	NR	NR	NR	8	365
07/31/06	11:45	3rd			33.06	33.48	0.42	NR	NR
07/31/06	11:45	3rd	Pump	Start pump	NR	NR	NR	NR	NR
08/03/06	14:20	3rd		Stopped pump	NR	NR	NR	2	87
08/08/06	9:00	3rd	Pump	Start pump	NR	NR	NR	NR	NR
08/10/06	15:30	3rd	Pump	Start pump	NR	NR	NR	NR	NR
08/22/06	9:00	3rd		Stopped. Pulled pump	NR	NR	NR	4.9	373
08/22/06	9:45	3rd	Pump	Start pump	33.1	33.4	0.3	NR	NR



**APPENDIX C - RW-1 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>2</sup> (ft)	Product Bailed or Purged <sup>2</sup> (gal)	Water Purged <sup>2</sup> (gal)
12/21/06	15:55	4th	Pump	Start pump	35.2	36	0.8	0.62	70
02/21/07	10:15	1st.	Pump	Start pump	33.42	34.6	1.18	0.63	53.5
06/05/07	10:00	2nd		Compressor Down	32.42	32.71	0.29	NR	NR
06/05/07	10:10	2nd		Hand Bailed	NR	NR	NR	0.05	9
06/06/07	8:40	2nd		Hand bailed	NR	NR	NR	0.1	11
06/13/07	14:00	2nd		Hand bailed	NR	NR	NR	0.1	12
06/14/07	10:40	2nd		Hand bailed	NR	NR	NR	0.05	8
07/10/07	10:08	3rd		Hand bailed	32.42	32.71	0.29	0.3	18
07/11/07	9:25	3rd		Hand bailed	NR	NR	NR	0.21	NR
07/23/07	10:00	3rd		Hand bailed	NR	NR	NR	0.1	NR
11/26/07	10:50	4th		Hand bailed	30.76	36.45	5.69	0.18	37
02/18/08	15:32	1st.		Hand Bailed - pump frozen	30.18	34.77	4.59	1.66	36
05/21/08	14:10	2nd	Pump	Used Pump	30.33	34.57	4.24	1.39	51
09/12/08 <sup>1</sup>	14:30	3rd		Bladder pump malfunctioned	30.03	34.59	4.56	Not Bailed	0
11/13/08	13:00	4th	Pump	Used Pump	30.02	34.63	4.61	0.94	65
02/11/09	14:05	1st.	Pump	Used Pump	30.21	31.72	1.51	0.29	90
05/05/09	11:30	2nd	Pump	Used Pump	30.22	30.8	0.58	0.41	76
08/10/09	9:22	3rd	Pump	Used Pump	30.69	31.02	0.33	0.89	98
10/28/09	10:55	4th	Pump	Used Pump	30.56	30.75	0.19	0.19	74
03/03/10	9:00	1st	Pump	Used Pump	30.89	31.05	0.16	0.21	31
06/03/10	13:10	2nd	Pump	Used Pump	30.99	31.09	0.1	0.1	32
09/20/10	14:00	3rd	Pump	Used Pump	29.91	30.06	0.15	0.25	34
11/03/10	9:10	4th	Pump	Used Pump	30.89	31.01	0.12	0.1	31
03/09/11	10:19	1st	Pump	Used Pump	30.04	30.15	0.11	0.12	40
06/27/11	8:05	2nd	Pump	Used Pump	30.52	30.63	0.11	0.1	45
10/03/11	15:07	Annual	Pump	Used Pump	30.81	30.9	0.09	0.11	42
11/08/11	8:30		Pump	Used Pump	30.77	30.85	0.08	0.09	38
03/15/12	10:30	1st	Pump	Used Pump	29.31	29.34	0.03	0.02	22
06/04/12	9:00	2nd	Pump	Used Pump	29.39	29.41	0.02	0.05	40
08/13/12	10:30	3rd	Pump	Used Pump	29.54	30.13	0.59	0.4	40
10/08/12	9:40	4th	Pump	Used Pump	29.28	30.18	0.9	0.5	35
03/26/13	10:25	1st	Pump	Used Pump	29.11	32.6	3.49	0.028	24
06/17/13	11:50	2nd	Pump	Used Pump	29.37	33.1	3.73	0.75	18
09/16/13	11:05	3rd	Pump	Used Pump	28.75	33.09	4.34	0.8	19
11/12/13	9:25	4th	Pump	Used Pump	28.73	33.11	4.38	0.75	25
03/07/14	NR	1st	Pump	Used Pump	28.15	31.65	3.5	0.75	28
06/09/14	NR	2nd	Pump	Used Pump	28.31	33.06	4.75	0.75	25
09/18/14 <sup>3</sup>	NR	3rd		Annual Sampling Only	28.05	Unknown			



**APPENDIX C - RW-1 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>2</sup> (ft)	Product Bailed or Purged <sup>2</sup> (gal)	Water Purged <sup>2</sup> (gal)
11/13/14	NR	4th	Pump	Used Pump	28.11	33.04	4.93	0.87	30
03/23/15	3:00	1st	Pump	Pump	28.20	32.80	4.6	0.5	25
06/09/15	4:25	2nd	Pump	Pump	27.70	32.10	4.4	0.75	15
08/23/15 <sup>3</sup>	10:10	3rd	Pump	Pump	28.08	30.02	1.94	None	None
10/29/15	9:15	4th	Pump	Pump	27.65	30.10	2.45	0.75	14
03/04/16	0:00	1st			28.05	30.55	2.5	None	None
06/08/16	0:00	2nd			27.98	31.80	3.82	3.5	28
09/13/16	2:05	3rd			27.90	32.04	4.14	2.5	10
11/16/16	1:00	4th	Bailer		27.80	30.90	3.1	2.5	15
03/16/17	0:00	1st	Pump		27.05	30.55	3.5	4	14
06/20/17	0:00	2nd	Pump		26.77	28.42	1.65	2.5	18
09/19/17	12:25	3rd	Bailer		26.52	27.60	1.08	2.5	10
12/12/17	1:20	4th	Bailer		26.50	27.50	1	2	NR
02/14/18	11:30	1st	Bailer		26.94	27.22	0.28	0.5	0.5
05/07/18	15:15	2nd	Bailer		26.94	27.21	0.27	0.25	0.5
09/19/18	16:45	3rd	Bailer		27.44	27.70	0.26	0.25	0.5
11/07/18 <sup>4</sup>	--	4th	--		NM	NM	NM	None	None
03/28/19 <sup>4</sup>	--	1st	--		NM	NM	NM	None	None
05/08/19 <sup>4</sup>	--	2nd	--		NM	NM	NM	None	None
08/16/19 <sup>4</sup>	--	3rd	--		NM	NM	NM	None	None
09/04/19	17:50	3rd	Pump		NM	NM	NM	NM	52.8
09/05/19	18:58	3rd	Pump		NM	NM	NM	NM	110.55
10/03/19	16:55	4th	Pump		NM	NM	NM	NM	32.45
11/01/19 <sup>4</sup>	--	4th	--		NM	NM	NM	None	None
<b>TOTALS</b>								<b>491.758</b>	<b>3901.3</b>

**NOTES:**

FT - Feet

NR - Not recorded

NM - Not measured

Gal - Gallon

1) Bladder pump has torn diaphragm. Pump non-repairable. Ordered new pump

2) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.

3) Annual Samples collected - no purging done at this time.

4) Pump in well - well not gauged or bailed.



# **APPENDIX C - RW-2 FLUID RECOVERY LOG** **2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed or Purged (gal)	Water Purged (gal)
03/28/19 <sup>1</sup>	--	1st	--		NM	NM	NM	None	None
05/08/19 <sup>1</sup>	--	2nd	--		NM	NM	NM	None	None
08/16/19 <sup>1</sup>	--	3rd	--		NM	NM	NM	None	None
09/04/19	11:16	3rd	Pump		NM	NM	NM	NM	14.85
09/05/19	16:10	3rd	Pump		NM	NM	NM	NM	416.9
10/03/19	16:37	4th	Pump		NM	NM	NM	NM	16.5
11/01/19 <sup>1</sup>	--	4th	--		NM	NM	NM	None	None
<b>TOTALS</b>								<b>0</b>	<b>448.25</b>

**NOTES:**

*FT - Feet*

*NR - Not recorded*

*NM - Not measured*

*Gal - Gallon*

*1) Pump in well - well not gauged or bailed.*



**APPENDIX C - RW-5 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)
02/22/05	14:15	1st	Bailer	Start	32.92	34.01	1.09	4.5	NR
03/03/05	14:00	1st	Bailer	Start	33.08	33.42	0.34	6	NR
06/24/05	9:00	2nd	Bailer	Start	32.96	34.04	1.08	2.5	NR
09/16/05	9:20	3rd	Bailer	Start	32.83	33.85	1.02	2.5	NR
12/05/05	14:00	4th	Bailer	Start	32.52	33.21	0.69	1.5	NR
03/16/06	14:50	1st	Bailer	Start	32.58	33.00	0.42	1	NR
07/26/06	14:35	2nd	Bailer	Start	32.90	33.31	0.41	0.5	NR
10/16/06	09:15	4th	Bailer	Start	32.73	33.42	0.69	0.25	NR
02/13/07	09:00	1st	Bailer	Start	32.17	33.95	1.78	0.5	NR
04/30/07	11:20	2nd	Bailer	Start	33.00	33.83	0.83	2.5	NR
07/10/07	10:15	3rd	Bailer	Start	33.10	33.92	0.82	2.5	NR
11/26/07	08:00	4th	Bailer	Start	33.01	33.91	0.9	1.75	NR
02/18/08	15:15	1st	Bailer	Start	33.19	33.95	0.76	0.19	20
05/21/08	14:20	2nd	Bailer	Start	32.77	33.84	1.07	0.14	18
09/12/08	14:30	3rd	Bailer	Start	32.62	32.85	0.23	0.05	15
11/03/08	14:00	4th	Bailer	Start	31.05	32.34	1.29	0.05	15
02/11/09	13:40	1st	Bailer	Start	32.08	32.15	0.07	0.05	15
05/05/09	10:02	2nd	Bailer	Start	0.00	31.91	0	0	0
08/10/09	9:50	3rd	Bailer	Start	0.00	31.94	0	0	0
10/28/09	10:45	4th	Bailer	Start	0.00	31.71	0	0	0
03/03/10	9:35	1st	Bailer	Start	0.00	31.63	0	0	0
06/03/10	13:40	2nd	Bailer	Start	0.00	31.37	0	0	0
09/20/10	14:24	3rd	Bailer	Start	0.00	31.94	0	0	0
11/03/10	9:30	4th	Bailer	Start	0.00	31.94	0	0	0
03/09/11	10:29	1st	Bailer	Start	0.00	30.05	0	0	20
06/27/11	8:40	2nd	Bailer	Start	0.00	28.96	0	0	20
10/04/11	8:15	3rd	Bailer	Start	0.00	29.89	0	0	14
11/08/11	9:20	4th	Bailer	Start	0.00	29.85	0	0	17
03/15/12	9:50	1st	Bailer	Start	0.00	29.32	0	0	15
06/04/12	9:20	2nd	Bailer	Start	0.00	29.37	0	0	10
08/13/12	10:50	3rd	Bailer	Start	0.00	29.49	0	0	10
10/08/12	10:10	4th	Bailer	Start	0.00	29.58	0	0	15
03/26/13	9:10	2nd	Bailer	Start	0.00	29.45	0	0	10
06/17/13	10:20	2nd	Bailer	Start	0.00	29.44	0	0	14
09/16/13	9:30	3rd	Bailer	Start	0.00	28.98	0	0	15
11/12/13	9:50	4th	Bailer	Start	0.00	28.96	0	0	16



**APPENDIX C - RW-5 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)
03/17/14	NR	1st	Bailer	Start	0.00	27.92	0	0	15
06/09/14	NR	2nd	Bailer	Start	0.00	28.80	0	0	20
9/18/14 <sup>2</sup>	NR	3rd	Bailer	Start	0.00	28.81	0	0	0
11/13/14	NR	4th	Bailer	Start	0.00	28.77	0	0	16
03/23/15	3:15	1st	N/A	N/A	0.00	29.10	0	0	0
06/09/15	4:10	2nd	Bailer	Start	0.00	28.80	0	0	15
08/23/15	9:25	3rd	Bailer	Start	0.00	29.08	0	0	16
10/29/15	1:35	4th	Bailer	Start	0.00	27.94	0	0	17
03/04/16	0:00	1st	Bailer	Start	0.00	28.22	0	0	15
06/07/16	3:47	2nd	Bailer	Start	0.00	28.22	0	0	17
09/13/16	9:10	3rd	Bailer	Start	0.00	27.70	0	0	20
11/16/16	9:12	4th	Bailer	Start	0.00	27.40	0	0	20
03/16/17	NR	1st	Bailer	Start	0.00	27.53	0	0	20
06/20/17	3:47	2nd	Bailer	Start	25.30	33.30	8	10.5	21
09/19/17	9:10	3rd	Bailer	Start	25.46	31.65	6.19	5.5	20
12/12/17	11:08	4th	Bailer	Start	24.75	34.00	9.25	18	NR
02/09/18	11:43	1st	NA	Waiting Pump Install	25.50	33.60	8.1	0	0
04/25/18	NR	2nd	NA	Waiting Pump Install	26.62	32.34	5.72	0	0
08/16/18	15:30	3rd	NA	Waiting to turn on pump	27.20	32.58	5.38	0	0
11/07/18 <sup>3</sup>	--	4th	--		NM	NM	NM	None	None
03/28/19 <sup>3</sup>	--	1st	--		NM	NM	NM	None	None
05/08/19 <sup>3</sup>	--	2nd	--		NM	NM	NM	None	None
08/16/19 <sup>3</sup>	--	3rd	--		NM	NM	NM	None	None
09/04/19	11:25	3rd	Pump		NM	NM	NM	NM	68.2
10/02/19	17:15	4th	Pump		NM	NM	NM	NM	84.7
10/03/19 <sup>4</sup>	17:40	4th	Pump		NM	NM	NM	15	78.1
11/01/19 <sup>3</sup>	--	4th	--		NM	NM	NM	None	None
<b>TOTALS</b>								<b>75.48</b>	<b>722</b>

**NOTES:**

FT - Feet

NR - Not recorded

NA - not applicable

Gal - Gallon

1) Measurements given are estimated values based on the technicians interpretation.

2) Annual grab samples collected - no purging of well at this time.



**APPENDIX C - RW-6 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)
02/22/05	14:30	1st	Bailer	Start	33.12	34.5	1.38	4.5	NR
03/03/05	14:00	2nd	Bailer	Start	33.15	34	0.85	6	NR
06/24/05	11:00	2nd	Bailer	Start	33.31	34.46	1.15	3.5	NR
09/16/05	10:20	3rd	Bailer	Start	32.98	34.33	1.35	3	NR
03/16/06	12:45	1st	Bailer	Start	32.67	33.75	1.08	2.5	NR
07/26/06	15:00	2nd	Bailer	Start	33	34.12	1.12	1.5	NR
10/16/06	09:55	4th	Bailer	Start	33.71	34.63	0.92	0.75	NR
02/13/07	09:50	1st	Bailer	Start	33.29	34.5	1.21	0.75	NR
04/30/07	11:25	2nd	Bailer	Start	34.42	34.58	0.16	0.25	NR
07/10/07	10:08	3rd	Bailer	Start	33.29	34.58	1.29	6.78	NR
11/28/07	08:10	4th	Bailer	Start	33.25	34.47	1.22	4.5	NR
02/18/08	15:11	1st	Bailer	Start	33.44	34.35	0.91	0.11	20
05/21/08	14:30	2nd	Bailer	Start	33.02	34.12	1.1	0.13	18
09/12/08	14:35	3rd	Bailer	Start	32.12	32.83	0.71	0.09	15
11/03/08	14:35	4th	Bailer	Start	32.46	32.69	0.23	0.04	15
02/11/09	13:30	1st	Bailer	Start	32.19	32.35	0.16	0.12	15
05/05/09	9:45	2nd	Bailer	Start	32.08	32.26	0.18	0.04	15
08/10/09	9:55	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
10/28/09	10:55	4th	Bailer	Start	31.81	32.03	0.22	0.03	12
03/03/10	9:40	1st	Bailer	Start	31.78	32.01	0.23	0.05	15
06/03/10	13:45	2nd	Bailer	Start	31.61	31.7	0.09	0.05	15
09/20/10	14:30	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
11/03/10	9:35	4th	Bailer	Start	32.01	32.1	0.09	0.02	15
03/09/11	10:34	1st	Bailer	Start	30.24	30.26	0.02	0.04	25
06/27/11	9:25	2nd	Bailer	Start	30.11	30.15	0.04	0.04	30
10/04/11	9:05	3rd	Bailer	Start	29.91	29.94	0.03	0.09	30
11/08/11	9:45	4th	Bailer	Start	29.90	29.93	0.03	0.05	25
03/15/12	9:55	1st	Bailer	Start	0	29.46	0	0	17
06/04/12	9:25	2nd	Bailer	Start	0	29.54	0	0	20
08/13/12	11:00	3rd	Bailer	Start	0	29.57	0	0	15
10/08/12	10:15	4th	Bailer	Start	0	29.62	0	0	15
03/26/13	9:15	1st	Bailer	Start	0	29.59	0	0	20
06/17/13	10:25	2nd	Bailer	Start	0	29.52	0	0	15
09/16/13	10:10	3rd	Bailer	Start	0	29.13	0	0	20
11/12/13	9:50	4th	Bailer	Start	0	29.1	0	0	15
03/17/14	NR	1st	Bailer	Start	0	27.92	0	0	15



**APPENDIX C - RW-6 FLUID RECOVERY LOG**  
**2/22/05 thru 2019**

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level <sup>1</sup> (ft)	Product Bailed/Purged <sup>1</sup> (gal)	Water Purged <sup>1</sup> (gal)
06/09/14	NR	2nd	Bailer	Start	0	28.8	0	0	20
9/18/2014 <sup>2</sup>	NR	3rd	Bailer	Start	0	28.81	0	0	0
11/13/14	NR	4th	Bailer	Start	0	28.77	0	0	16
03/23/15	3:15	1st	N/A	N/A	0	29.18	0	0	0
06/09/15	4:12	2nd	Bailer	Start	0	28.68	0	0	15
08/23/15	9:27	3rd	Bailer	Start	0	29.06	0	0	20
10/29/15	3:37	4th	Bailer	Start	0	27.97	0	0	19
03/04/16	0:00	1st	Bailer	Start	0	28.25	0	0	14
06/07/16	3:45	2nd	Bailer	Start	0	28.24	0	0	18
09/13/16	9:50	3rd	Bailer	Start	0	27.99	0	0	20
11/16/16	9:15	4th	Bailer	Start	0	27.72	0	0	20
03/16/17	0:00	1st	Bailer	Start	0	27.5	0	0	20
06/20/17	0:00	2nd	Bailer	Start	25.5	33.62	8.12	10	10
09/19/17	0:00	3rd	Bailer	Start	25.89	30.97	5.08	8	20
12/12/17	11:13	4th	Bailer	Start	24.83	33.85	9.02	13	NR
02/09/18	11:48	1st	NA	Waiting Pump Install	25.65	33.05	7.4	0	0
04/25/18	NR	2nd	NA	Waiting Pump Install	26.93	31.69	4.76	0	0
08/16/18	16:05	3rd	Bailer	Waiting to turn on pump	27.43	31.78	4.35	0	0
11/07/18 <sup>3</sup>	--	4th	--		NM	NM	NM	None	None
03/28/19 <sup>3</sup>	--	1st	--		NM	NM	NM	None	None
05/08/19 <sup>3</sup>	--	2nd	--		NM	NM	NM	None	None
08/14/19	18:00	3rd	Pump		NM	NM	NM	NM	28.05
08/15/19	18:10	3rd	Pump		NM	NM	NM	NM	404.8
08/16/19 <sup>3</sup>	--	3rd	--		NM	NM	NM	None	None
08/20/19		3rd	Pump		NM	NM	NM	NM	160.05
09/05/19	17:15	3rd	Pump		NM	NM	NM	NM	352
10/02/19	17:40	4th	Pump		NM	NM	NM	NM	33
10/03/19 <sup>4</sup>		4th	Pump		NM	NM	NM	30	106.15
11/01/19 <sup>3</sup>	--	4th	--		NM	NM	NM	None	None
<b>TOTALS</b>								<b>95.99</b>	<b>1743.05</b>

**NOTES:**

FT - Feet

NR - Not recorded

NA - not applicable

Gal - Gallon

1) Measurements given are estimated values based on the technicians interpretation.

2) Annual grab samples collected - no purging of well at this time.



**APPENDIX D**  
**FIELD INSPECTION LOGS**  
**(ON ATTACHED CD)**





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/25/19	TIME									
DHC (FEET)	4.4	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	4.74	1									
DTB (FEET)	17.42	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer = 0.34									
PURGE DATE											
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/28/19	TIME	1150							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	6.34	1	1218	8.82	11.02	5236	3.403	2.83	2.32	58
DTB (FEET)	20.48	2	1220	8.36	11.22	5275	3.429	2.80	1.94	48.1
DTB - DTW	14.14	3	1222	8.36	11.21	5203	3.487	2.80	1.94	47.9
CAPACITY PER FOOT	0.74 - 4"	4	1224	8.34	11.18	5261	3.424	2.80	1.92	46.1
3 WELL VOLUMES	31	WEATHER CONDITIONS: clear, breezy								
PURGE DATE	3/28	WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS:								
AMT PURGED	20									
SAMPLE DATE	3/28									
SAMPLE TIME	1225									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/25/19	TIME	1255							
DHC (FEET)	4.5	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	5.6	1								
DTB (FEET)	18.45	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS: No Samples collected SPH layer = 1.1								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/25/18	TIME	1228								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	6.45	1		No data collected							
DTB (FEET)	22.15	2		Sheen / odor							
DTB - DTW	15.7	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear / slight breeze									
3 WELL VOLUMES	35										
PURGE DATE	3/25	WATER APPEARANCE / ODOR:									
START TIME	1226	clear - gray - muddy - odor / sheen									
END TIME	1247	COMMENTS:									
AMT PURGED	22.5										
SAMPLE DATE	3/26										
SAMPLE TIME	1034										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1330								
DHC (FEET)	13.87	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	13.97	1									
DTB (FEET)	17.75	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, snow storms, windy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydrocarbon, odor									
PURGE DATE		COMMENTS: No samples collected									
START TIME		SPH layer = 0.1									
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS					PRESERVATIVE			
		40 ML VOA	5					HCL			
		1 LITER AMBER						NEAT			
		250 ML AMBER	1					NEAT			
		250 ML PLASTIC	1					HNO <sub>3</sub>			
		125 ML PLASTIC	1					HNO <sub>3</sub>			
		125 ML PLASTIC	1					H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1					NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1335							
DHC (FEET)	15.79	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	16.55	1								
DTB (FEET)	23.77	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, snow storm, winds								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydro carbons / odor								
PURGE DATE										
START TIME										
END TIME		COMMENTS:								
AMT PURGED		No samples collected								
SAMPLE DATE		SPH layer = 0.76								
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1340								
DHC (FEET)	10.39	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	11.4	1									
DTB (FEET)	17.62	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, snow storm, windy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydrocarbon, odor									
PURGE DATE											
START TIME											
END TIME		COMMENTS: No samples collected									
AMT PURGED		SPH layer = 1.21									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1345								
DHC (FEET)	11.35	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	12.0	1									
DTB (FEET)	21.98	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, snow storm, windy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydrocarbon, odor									
PURGE DATE											
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED		SPH layer = 0.65									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/25/19	TIME	1412								mg/L	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	11.1	1	1103	8.39	20.39	2081	1.347	1.07	5.4	-69.1		
DTB (FEET)	22.70	2	1105	8.01	11.43	2076	1.349	1.07	1.82	-633		
DTB - DTW	11.6	3	1107	7.8	12.02	2088	1.357	1.07	1.58	-59.9		
CAPACITY PER FOOT	0.74 - 4"	4	1109	7.9	12.1	2086	1.357	1.07	1.58	-59.9		
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy										
3 WELL VOLUMES	24	WATER APPEARANCE / ODOR:										
PURGE DATE	3/25	Clean - gray										
START TIME	1417	COMMENTS:										
END TIME	1438											
AMT PURGED	24											
SAMPLE DATE	3/24											
SAMPLE TIME	1115											
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE							
	40 ML VOA		5		HCL							
	1 LITER AMBER				NEAT							
	250 ML AMBER		1		NEAT							
	250 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>							
	125 ML PLASTIC		1		NEAT							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/25/19	TIME	1205								mg/L	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	5.7	1	1001	8.55	11.6	2192	1.425	1.13	14.83	-78.4		
DTB (FEET)	15.99	2	1003	8.17	11.63	2162	1.405	1.11	1.64	-833		
DTB - DTW	10.29	3	1005	7.98	11.75	2163	1.406	1.11	1.34	-78.4		
CAPACITY PER FOOT	0.74 - 4"	4	1007	7.85	11.9	2168	1.409	1.12	1.16	-78.4		
	0.163 - 2"	WEATHER CONDITIONS: Clear, Calm										
3 WELL VOLUMES	33	WATER APPEARANCE / ODOR: Clear - pink - muddy - slight odor -										
PURGE DATE	3/25											
START TIME	3:05											
END TIME	1215	COMMENTS:										
AMT PURGED	7.25											
SAMPLE DATE	3/26											
SAMPLE TIME	1012											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
		40 ML VOA		5		HCL						
		1 LITER AMBER				NEAT						
		250 ML AMBER		1		NEAT						
		250 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
		125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/25/19	TIME	1306							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	49.6	1	1051	8.03	11.99	362.2	2355	1.92	1.97	-67.1
DTB (FEET)	18.14	2	1053	7.9	11.92	362.1	2354	1.92	1.96	-66.7
DTB - DTW	13.18	3	1055	7.79	11.93	362.4	2356	1.92	1.6	-66.9
CAPACITY PER FOOT	0.74 - 4"	4	1057	7.72	12.03	363.5	2361	1.92	1.7	-65
3 WELL VOLUMES	30	WEATHER CONDITIONS: clear, slight breeze								
PURGE DATE	3/25	WATER APPEARANCE / ODOR: clear - gray - dk gray/murky - slight odor								
START TIME	1308									
END TIME	1328	COMMENTS:								
AMT PURGED	30									
SAMPLE DATE	3/26									
SAMPLE TIME	1100									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	4/26/19	TIME	1935							
DHC (FEET)	16.65	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	7.00	1								
DTB (FEET)	25.60	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Pty cloudy - breezy								
PURGE DATE		WATER APPEARANCE / ODOR: Odor - SPH								
START TIME										
END TIME		COMMENTS: No Samples collected - SPH layer								
AMT PURGED										
SAMPLE DATE		SPH layer = 9.65								
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/26/19	TIME	1515							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	10.9	1	Dirty - did not take readings							
DTB (FEET)	21.25	2								
DTB - DTW	10.35	3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	23	WEATHER CONDITIONS: ptly cldy, breezy								
PURGE DATE	3/26/19	WATER APPEARANCE / ODOR: 0.2w / green								
START TIME	1517									
END TIME	1530	COMMENTS:								
AMT PURGED										
SAMPLE DATE	3/26									
SAMPLE TIME	1542									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/05/19	TIME									
DHC (FEET)	3.89	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	4.29	1									
DTB (FEET)	7.46	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPT level = 0.34									
PURGE DATE		COMMENTS: No Samples collected									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/25/19	TIME	1020								
DHC (FEET)	10.98	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	11.68	1	No data taken sheen / odor								
DTB (FEET)	19.48	2									
DTB - DTW	8.48	3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	18 gal	WEATHER CONDITIONS: clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME											
AMT PURGED		COMMENTS: No Samples collected									
SAMPLE DATE		SpH layer = 0.02									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/20/19	TIME	1245								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees.C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)	
DTW (FEET)	7.05	1	1601	8.48	16.02	3371	2.1	1.78	2.2	-60.1	
DTB (FEET)	14.10	2	1603	8.03	15.31	3365	2.188	1.78	2.19	-59.8	
DTB - DTW		3	1605	7.82	14.19	3397	2.208	1.79	2.1	-60.1	
CAPACITY PER FOOT	0.74 - 4"	4	1607	7.71	13.47	3400	2.21	1.79	2.1	-55.1	
	0.163 - 2"	WEATHER CONDITIONS: ptly cldy sunny, breeze									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: clear - slight odor									
PURGE DATE	2/20/19										
START TIME	1250										
END TIME	1300	COMMENTS: wtr made vault above casing + plug.									
AMT PURGED	3										
SAMPLE DATE	2/20/19										
SAMPLE TIME	1610										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/25/19	TIME	0831							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	10.7	1	0706	7.83	10.79	1759	1.138	.89	3.83	2.1
DTB (FEET)	24.11	2	0708	7.91	11.88	1751	1.138	.9	3.76	3.8
DTB - DTW	13.41	3	0710	7.79	11.39	1761	1.145	.9	3.76	2.8
CAPACITY PER FOOT	0.74 - 4"	4	0712	7.72	10.99	1760	1.144	.9	3.75	2.7
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, calm								
PURGE DATE	3/25	WATER APPEARANCE / ODOR: Clear - gray last bail								
START TIME	0836									
END TIME	0845	COMMENTS: 2" up with inside of vault below pipe plug.								
AMT PURGED	2 1/4									
SAMPLE DATE	3/26/19									
SAMPLE TIME	0716									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/25/19	TIME	11008							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	732	1	1439	8.75	1321	1769	1.151	.9	2.07	-99.1
DTB (FEET)	25.38	2	1441	8.68	1317	1775	1.154	.91	1.71	-99.3
DTB - DTW	18.06	3	1443	8.39	1362	1767	1.149	.9	1.62	-98.6
CAPACITY PER FOOT	0.74 - 4"	4	1445	8.23	1397	1775	1.154	.91	1.63	-93.4
3 WELL VOLUMES	9 gals	WEATHER CONDITIONS: Clear - slight breeze								
PURGE DATE	3/25	WATER APPEARANCE / ODOR: Clear								
START TIME										
END TIME	11020	COMMENTS: left area - Emergency in tanks.								
AMT PURGED	7									
SAMPLE DATE	3/26									
SAMPLE TIME	1451									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/25/19	TIME	0853							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	11.4	1	0730	7.53	10.2	1981	1.288	1.02	1.1	-67.3
DTB (FEET)	17.47	2	0732	7.43	9.6	10914	1.296	1.02	1.01	-69.3
DTB - DTW	6.07	3	0734	7.38	9.12	2003	1.302	1.03	1.01	-60.3
CAPACITY PER FOOT	0.74 - 4"	4	0734	7.34	8.91	2010	1.300	1.03	0.98	-58
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm								
3 WELL VOLUMES	3 gal									
PURGE DATE	3/25	WATER APPEARANCE / ODOR: Clear - pink - brown - No odor								
START TIME										
END TIME	0906	COMMENTS: Vault full about 8 - above plug - Removed wtr before opening plug								
AMT PURGED										
SAMPLE DATE	3/25/19									
SAMPLE TIME	0736									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/20/19	TIME	1230							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	6.29	1	1532	8.41	8.45	79	.052	.04	9.37	-94.9
DTB (FEET)	9.89	2	1534	8.59	7.84	76	.049	.04	9.62	-78.9
DTB - DTW		3	1536	8.59	7.65	98	.064	.05	9.7	-44.7
CAPACITY PER FOOT	0.74 - 4"	4	1538	8.6	7.82	70	.044	.03	9.59	-26
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: pty cldy - sunny - breezy								
PURGE DATE	2/20/19	WATER APPEARANCE / ODOR: <del>clear</del> color Black, sheen, odor								
START TIME	1232									
END TIME	1240	COMMENTS:								
AMT PURGED	1.75									
SAMPLE DATE	2/20/19									
SAMPLE TIME	1540									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/20/19	TIME	1210							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	5.62	1								
DTB (FEET)	9.89	2	No Data Collected - Sheen							
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: ptly cldy, breezy								
3 WELL VOLUMES										
PURGE DATE	2/20/19	WATER APPEARANCE / ODOR:								
START TIME	1214	Clear - gray w/sheen / odor								
END TIME	1224	COMMENTS: Collected <del>6</del> 1 Sample - 1								
AMT PURGED	6 gals	Samples								
SAMPLE DATE	2/20	1								
SAMPLE TIME	1632									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/25/19	TIME	0934							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	2443	1	0820	8.3	1068	1954	127	1	8.1	368
DTB (FEET)	35.25	2	0822	7.74	1164	1902	1236	.97	2.68	-369
DTB - DTW	1082	3	0824	7.57	1143	1905	1238	.97	1.91	348
CAPACITY PER FOOT	0.74 - 4"	4	0826	7.48	1127	1907	1239	.98	1.89	332
3 WELL VOLUMES	5	WEATHER CONDITIONS: Clear, slight breeze.								
PURGE DATE	3/25	WATER APPEARANCE / ODOR: 3/26 - Clear - slight breeze								
START TIME	0938	clear - pink - muddy no odor								
END TIME	0947	COMMENTS:								
AMT PURGED	4									
SAMPLE DATE	3/26/19									
SAMPLE TIME	0828									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										



sheen/odor



MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	MKT-23										TEST PARAMETERS				
GAUGE DATE	3/25/19	TIME	0953												
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)					
DTW (FEET)	12.55	1	sheen - NO data taken												
DTB (FEET)	20.30	2													
DTB - DTW	7.81	3													
CAPACITY PER FOOT	0.74 - 4"	4													
3 WELL VOLUMES	4	WEATHER CONDITIONS: clear, slight breeze.													
PURGE DATE	3/25	WATER APPEARANCE / ODOR: odor, sheen													
START TIME	0955	Clear - slight yew tint													
END TIME	1009	COMMENTS:													
AMT PURGED	3.5														
SAMPLE DATE	3/26														
SAMPLE TIME	0845														
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE										
	40 ML VOA		5		HCL										
	1 LITER AMBER				NEAT										
	250 ML AMBER		1		NEAT										
	250 ML PLASTIC		1		HNO <sub>3</sub>										
	125 ML PLASTIC		1		HNO <sub>3</sub>										
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>										
	125 ML PLASTIC		1		NEAT										
Duplicate @ 0855															
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter															
Completed by: /s/ Cheryl Johnson/Environmental Specialist															
Signature:															





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/25/19	TIME	1025							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	22.43	1								
DTB (FEET)	30.47	2	Did not record data							
DTB - DTW	8.04	3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	4	WEATHER CONDITIONS: clear, calm								
PURGE DATE	2/25	WATER APPEARANCE / ODOR: Clear - pink - muddy								
START TIME	1030									
END TIME	1040	COMMENTS:								
AMT PURGED	3.25									
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	2/14/19	TIME	1042								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	13.13	1									
DTB (FEET)	19.43	2									
DTB - DTW	6.3	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: overcast, breeze,									
3 WELL VOLUMES	3										
PURGE DATE	2/14	WATER APPEARANCE / ODOR: clear - pink - muddy									
START TIME	1046										
END TIME	1050	COMMENTS: Bailed .75 gals - muddy.									
AMT PURGED	.75										
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	2/14/19	TIME	1121								
DHC (FEET)	8.38	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	9.15	1									
DTB (FEET)	17.15	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: cloudy - calm,									
PURGE DATE		WATER APPEARANCE / ODOR: hydrocarbons, odor									
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	2/25/19	TIME	0803								mg/L	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen	ORP (mv)		
DTW (FEET)	3.75	1	1241	8.65	11.54	11839	7.696	6.79	8.65	98.1		
DTB (FEET)	14.72	2	1243	8.52	9.34	12327	8.012	7.07	5.8	97.3		
DTB - DTW	10.97	3	1245	8.43	9.72	12395	8.057	7.11	5.23	92.5		
CAPACITY PER FOOT	0.74 - 4"	4	1247	8.37	10.18	12425	8.076	7.14	5.08	88.3		
	0.163 - 2"	WEATHER CONDITIONS: Clear, Calm 3/28/19 - clear breezy										
3 WELL VOLUMES	5											
PURGE DATE	2/25	WATER APPEARANCE / ODOR: Clear w/ yw tint										
START TIME	807											
END TIME		COMMENTS:										
AMT PURGED	(5)											
SAMPLE DATE	3/28											
SAMPLE TIME	1250											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
		40 ML VOA		5		HCL						
		1 LITER AMBER				NEAT						
		250 ML AMBER		1		NEAT						
		250 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
		125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/25/19	TIME	0858								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	4.91	1	0845	8.73	14.38	2686	1.746	1.4	4.51	89.1	
DTB (FEET)	16.16	2	0847	8.58	14.17	2691	1.749	1.4	4.48	90.8	
DTB - DTW	11.25	3	0849	8.49	13.98	2693	1.75	1.4	4.91	91.4	
CAPACITY PER FOOT	0.74 - 4"	4	0851	8.42	13.82	2694	1.751	1.4	4.74	92.2	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	5	Clear, calm									
PURGE DATE	2/25	WATER APPEARANCE / ODOR:									
START TIME	0901	Clear - no odor									
END TIME	0909	COMMENTS:									
AMT PURGED	5										
SAMPLE DATE	3/28										
SAMPLE TIME	0855										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/25/19	TIME	0838							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	3.73	1		9.05	10.63	2554	1.66	1.33	2.63	76.6
DTB (FEET)	22.84	2		8.8	10.66	2550	1.657	1.32	2.19	78.1
DTB - DTW	19.1	3		8.67	10.69	2548	1.656	1.32	2.03	74.4
CAPACITY PER FOOT	0.74 - 4"	4		8.58	10.72	2546	1.655	1.32	1.9	71
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm								
3 WELL VOLUMES	9	WATER APPEARANCE / ODOR: Clear w/ slight pink @ last 2 barrels								
PURGE DATE	2/25									
START TIME	0840									
END TIME	0853	COMMENTS:								
AMT PURGED	9									
SAMPLE DATE	3/28									
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
Duplicate										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	2/14/19	TIME	1130								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	18.49	1									
DTB (FEET)	23.20	2									
DTB - DTW	9.76	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy - Rain									
3 WELL VOLUMES	5										
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		Rained out - left area - muddy									
SAMPLE DATE		conditions									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/28/19	TIME	0910							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.68	1	0917	8.92	12.12	3348	2.176	1.77	6.81	98.2
DTB (FEET)	23.20	2	0919	8.62	11.9	3364	2.187	1.77	3.21	102.5
DTB - DTW	9.52	3	0921	8.47	11.69	3366	2.188	1.78	3.04	101.9
CAPACITY PER FOOT	0.74 - 4"	4	0923	8.37	11.57	3367	2.188	1.78	2.96	100.9
	0.163 - 2"	WEATHER CONDITIONS: clear, calm								
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR: clear - pink								
PURGE DATE	3/28									
START TIME	0912									
END TIME	0918	COMMENTS:								
AMT PURGED	5									
SAMPLE DATE	3/28									
SAMPLE TIME	0924									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Duplicate  
1436 EDB

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	2/14/19	TIME	1054		male						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)	
DTW (FEET)	8.25	1	1410	8.14	7.96	3275	2.129	1.72	3.78	588	
DTB (FEET)	22.81	2	1412	8.04	7.7	3280	2.136	1.72	3.66	594	
DTB - DTW	14.56	3	1414	7.97	7.47	3293	2.141	1.73	3.64	59.1	
CAPACITY PER FOOT	0.74 - 4"	4	1414	7.91	7.13	3303	2.147	1.73	3.64	59	
	0.163 - 2"	WEATHER CONDITIONS: cloudy - calm									
3 WELL VOLUMES	7										
PURGE DATE		WATER APPEARANCE / ODOR: clear - pink no odor									
START TIME	1										
END TIME	1115	COMMENTS: Sampling Suspended - Rain									
AMT PURGED	7	DTW 8.15 2/20/19 @ 1355 17 gals									
SAMPLE DATE	2/20/19	end 1406 Sample @ 1420									
SAMPLE TIME	1420										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/13/19	TIME	1042							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	1349	1	1525	9.58	14.71	2728	17	1.41	3.61	58.1
DTB (FEET)	27.75	2	1527	8.82	11.19	2719	1.767	1.42	3.56	54.3
DTB - DTW	14.24	3	1529	8.53	10.55	2738	1.78	1.43	3.3	57.8
CAPACITY PER FOOT	0.74 - 4"	4	1530	8.51	10.5	2730	1.78	1.43	3.1	56.1
3 WELL VOLUMES	7	WEATHER CONDITIONS: overcast, slight breeze								
PURGE DATE	2/13	WATER APPEARANCE / ODOR: clear - cloudy - pink no odor								
START TIME	1045									
END TIME	1057	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	2/13									
SAMPLE TIME	1538									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260	40 ML VOA		5		HCL					
8015	1 LITER AMBER				NEAT					
WQCC RD	250 ML AMBER		1		NEAT					
Cat / An	250 ML PLASTIC		1		HNO <sub>3</sub>					
8270	125 ML PLASTIC		1		HNO <sub>3</sub>					
8011	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/25/19	TIME	0913		mull					
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	22.0	1	0800	7.71	11.77	1672	1.087	0.85	1.48	-2.1
DTB (FEET)	33.2	2	0802	7.66	11.66	1673	1.087	0.85	1.49	0.3
DTB - DTW	11.2	3	0804	7.63	11.63	1674	1.088	0.85	1.37	2
CAPACITY PER FOOT	0.74 - 4"	4	0806	7.61	11.58	1672	1.087	0.85	1.3	2.7
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm								
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR: Clear - pink - No odor								
PURGE DATE	3/25									
START TIME	0918									
END TIME	0929	COMMENTS:								
AMT PURGED										
SAMPLE DATE	3/26/19									
SAMPLE TIME	0806									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
1 xtra	40 ML VOA		5		HCL					
	1 LITER AMBER		2		NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/25/18	TIME	1033								make	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	16.95	1	0909	8.35	12.95	3705	2.408	1.97	7.97	62		
DTB (FEET)	27.68	2	0911	8.16	12.84	3705	2.408	1.97	6.65	66.9		
DTB - DTW	10.73	3	0913	8.07	12.81	3701	2.406	1.96	6.49	69.3		
CAPACITY PER FOOT	0.74 - 4"	4	0915	8	12.84	3700	2.405	1.96	6.41	70.3		
	0.163 - 2"	WEATHER CONDITIONS: clear, slight breeze										
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR: clear, cloudy - no odor										
PURGE DATE	3/25											
START TIME	1030											
END TIME	1045	COMMENTS:										
AMT PURGED	5											
SAMPLE DATE	3/26											
SAMPLE TIME	0922											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
		40 ML VOA		5		HCL						
		1 LITER AMBER				NEAT						
		250 ML AMBER		1		NEAT						
		250 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
		125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/25/19	TIME	1550								mg/L	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	8.34	1	1309	8.38	12.31	1781	1.154	0.91	1.47	-1051		
DTB (FEET)	16.45	2	1311	8.44	12.58	1779	1.156	0.91	1.43	-1046		
DTB - DTW	7.91	3	1313	8.11	13.23	1782	1.158	0.91	1.29	-873		
CAPACITY PER FOOT	0.74 - 4"	4	1315	7.90	13.68	1784	1.159	0.91	1.33	-804		
3 WELL VOLUMES	4	WEATHER CONDITIONS: Clear, slight breeze										
PURGE DATE	3/25	WATER APPEARANCE / ODOR: clear - cloudy - pink										
START TIME	1558											
END TIME	1607	COMMENTS: wtr inside vault - below plug.										
AMT PURGED	4											
SAMPLE DATE	3/26											
SAMPLE TIME	1320											
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE							
	40 ML VOA		5		HCL							
	1 LITER AMBER				NEAT							
	250 ML AMBER		1		NEAT							
	250 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>							
	125 ML PLASTIC		1		NEAT							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/25	TIME								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		Unable to locate / access								
START TIME										
END TIME		COMMENTS:								
AMT PURGED		Well was paved over when								
SAMPLE DATE		Truck Rack grounds were repaved.								
SAMPLE TIME		No access.								
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
		40 ML VOA	5				HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE		TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	8.39	1									
DTB (FEET)	24.60	2									
DTB - DTW	16.21	3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES		WEATHER CONDITIONS: Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR: Clear, gray - sheen/odor									
START TIME											
END TIME		COMMENTS: WTR inside vault above plug - Bailed water from vault before opening.									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/26/19	TIME	1140								myle	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	11.3	1	1147	8.48	20.5	2088	1.355	1.07	6.04	104.1		
DTB (FEET)	2029	2	1149	8.51	12.75	2085	1.355	1.07	1.93	108.8		
DTB - DTW	8.99	3	1151	8.28	13.21	2089	1.358	1.07	1.72	93.5		
CAPACITY PER FOOT	0.74 - 4"	4	1153	8.07	13.8	2087	1.357	1.07	1.65	90.2		
3 WELL VOLUMES	4	WEATHER CONDITIONS: Clear, slight breeze.										
PURGE DATE	3/26	WATER APPEARANCE / ODOR: clear - clay - pink										
START TIME	1144											
END TIME	1151	COMMENTS:										
AMT PURGED	4											
SAMPLE DATE	3/26											
SAMPLE TIME	1158											
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE							
	40 ML VOA		5		HCL							
	1 LITER AMBER				NEAT							
	250 ML AMBER		1		NEAT							
	250 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>							
	125 ML PLASTIC		1		NEAT							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/28/19	TIME								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1	Not Sampled							
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS: Well located in Barricaded								
AMT PURGED		excavated area - No entry								
SAMPLE DATE		Not able to access.								
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE			
		40 ML VOA		5			HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER		1			NEAT			
		250 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC		1			NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/20/19	TIME	1500							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	12.79	1	1519	7.83	11.83	11234	7.302	6.41	3.79	68.2
DTB (FEET)	23.64	2	1521	7.72	11.1	11349	7.317	6.48	3.85	65.5
DTB - DTW	10.85	3	1523	7.65	10.61	11352	7.379	6.48	3.81	64
CAPACITY PER FOOT	0.74 - 4"	4	1525	7.4	10.6	11341	7.372	6.47	3.83	63.3
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR:								
PURGE DATE		Clear - no odor								
START TIME		COMMENTS:								
END TIME	1515									
AMT PURGED	5									
SAMPLE DATE	2/20									
SAMPLE TIME	1530									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/13	TIME	1100							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	20.1	1	1350	8.64	12.3	3192	2081	1.67	2.21	42.4
DTB (FEET)	40.10	2	1552	8.7	12.10	3199	2.08	1.67	2.16	379
DTB - DTW	20.00	3	1554	8.8	12.12	3197	2.078	1.68	2.14	35.8
CAPACITY PER FOOT	0.74 - 4"	4	1584	8.74	11.64	3202	2.081	1.68	2.09	38.8
3 WELL VOLUMES	10	WEATHER CONDITIONS: Overcast, Breezy								
PURGE DATE	2/13	WATER APPEARANCE / ODOR: clear - slight yew - orange - no odor								
START TIME	1108									
END TIME	1122	COMMENTS:								
AMT PURGED	10									
SAMPLE DATE	2/13									
SAMPLE TIME	1600									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260	40 ML VOA		5		HCL					
8015	1 LITER AMBER				NEAT					
WCC 1140	250 ML AMBER		1		NEAT					
Cost/Amu	250 ML PLASTIC		1		HNO <sub>3</sub>					
8270	125 ML PLASTIC		1		HNO <sub>3</sub>					
8011	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/13/19	TIME	10/16							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	17.18	1	1501	8.56	12.96	3761	2.44	2	8.45	434
DTB (FEET)	3315	2	1503	8.84	12.28	3760	2.444	2	5.56	286
DTB - DTW	15.97	3	1505	8.84	12.28	3738	2.43	1.98	5.65	37.3
CAPACITY PER FOOT	0.74 - 4"	4	1507	8.84	12.08	3729	2.424	1.98	5.5	433
3 WELL VOLUMES	8	WEATHER CONDITIONS: overcast, calm								
PURGE DATE	2/13	WATER APPEARANCE / ODOR: clear w/ slight yw/org tint - slight odor								
START TIME	1020									
END TIME	1034	COMMENTS:								
AMT PURGED	8									
SAMPLE DATE	2/13									
SAMPLE TIME	1510									
Analysis Request	CONTAINER TYPE				NUMBER OF CONTAINERS			PRESERVATIVE		
8260 8015 WQCCAD Cat / An 8270 X2 EDB	40 ML VOA				5			HCL		
	1 LITER AMBER							NEAT		
	250 ML AMBER				1			NEAT		
	250 ML PLASTIC				1			HNO <sub>3</sub>		
	125 ML PLASTIC				1			HNO <sub>3</sub>		
	125 ML PLASTIC				1			H <sub>2</sub> SO <sub>4</sub>		
125 ML PLASTIC				1			NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/13	TIME	0958							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	949	1	1432	7.95	8.97	14720	9568	8.55	4.29	63.5
DTB (FEET)	1543	2	1434	7.86	8.89	14734	9571	8.56	4.02	59.7
DTB - DTW	9.44	3	1436	7.79	8.83	14743	9583	8.56	3.89	57.1
CAPACITY PER FOOT	0.74 - 4"	4	1438	7.75	8.75	14750	9587	8.57	3.86	55.3
3 WELL VOLUMES	5	WEATHER CONDITIONS: Overcast, Calm								
PURGE DATE	2/13	WATER APPEARANCE / ODOR: clear w/ slight yellow tint - NO odor								
START TIME	1000									
END TIME	1011	COMMENTS:								
AMT PURGED	5									
SAMPLE DATE	2/13									
SAMPLE TIME	1440	Dup @ 1450								
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/13	TIME	0930	myle						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	3339	1	1402							
DTB (FEET)	5115	2	1404	8.78	10.06	5786	3.761	3.15	9.52	40.4
DTB - DTW	1776	3	1406	8.18	1226	5479	3.562	2.98	4.5	51.2
CAPACITY PER FOOT	0.74 - 4"	4	1408	8.65	1193	5493	3.57	2.98	4.52	51.8
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	89	over 20,000 m								
PURGE DATE	2/13	WATER APPEARANCE / ODOR:								
START TIME	932	clear - ends w/ slight orange tint								
END TIME	950	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	2/13									
SAMPLE TIME	1410									
Analysis Request	CONTAINER TYPE				NUMBER OF CONTAINERS			PRESERVATIVE		
8260	40 ML VOA				5			HCL		
8015	1 LITER AMBER							NEAT		
WQCTD	250 ML AMBER				1			NEAT		
Cat/A	250 ML PLASTIC				1			HNO <sub>3</sub>		
6270	125 ML PLASTIC				1			HNO <sub>3</sub>		
	125 ML PLASTIC				1			H <sub>2</sub> SO <sub>4</sub>		
	125 ML PLASTIC				1			NEAT		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/26/19	TIME	1405								
DHC (FEET)	12.0	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
DTW (FEET)	12.5	1									
DTB (FEET)	3024	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear - breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: No Samples collected - SPT layer									
PURGE DATE											
START TIME											
END TIME		COMMENTS:									
AMT PURGED		Spt layer = 0.5									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/27/19	TIME	11 24								
DHC (FEET)	—	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	1.69	1	1238	9.51	12.69	1449	.942	.73	2.22	79.6	
DTB (FEET)	94.55	2	1240	9.37	12.88	1439	.935	.73	1.02	82.9	
DTB - DTW	92.86	3	1242	9.36	13.3	1441	.937	.73	0.89	82.7	
CAPACITY PER FOOT	0.74 - 4"	4	1244	9.29	13.71	1443	.938	.73	0.82	85.3	
3 WELL VOLUMES	206	WEATHER CONDITIONS: Overcast, breezy									
PURGE DATE	3/27	WATER APPEARANCE / ODOR: Clear									
START TIME	1141	COMMENTS: pump kept losing suction. allowed to reach before collecting samples.									
END TIME	1240										
AMT PURGED	96										
SAMPLE DATE	3/27										
SAMPLE TIME	1251										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	1400							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	Full	1	1438	9.07	13.46	2657	1.727	1.38	4.57	105.2
DTB (FEET)	60.33	2	1440	8.7	13.42	2641	1.717	1.38	1.93	111.1
DTB - DTW	60.33	3	1442	8.59	13.62	2641	1.716	1.37	1.93	106.1
CAPACITY PER FOOT	0.74 - 4"	4	1440	8.43	13.83	2651	1.728	1.38	1.88	107.1
	0.163 - 2"	WEATHER CONDITIONS: Overcast - breezy								
3 WELL VOLUMES	134	WATER APPEARANCE / ODOR: clear - no odor								
PURGE DATE	3/27									
START TIME										
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	3/27/19									
SAMPLE TIME	1451									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
Duplicate 1500										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	1530							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	21.13	1	1544	8.83	13.19	1984	1.29	1.02	0.65	100.9
DTB (FEET)	49.90	2	1546	8.4	13.51	1974	1.283	1.01	0.82	74.8
DTB - DTW	28.77	3	1548	8.1	13.51	1974	1.283	1.01	0.73	71.5
CAPACITY PER FOOT	0.74 - 4"	4	1550	7.99	13.65	1979	1.284	1.02	0.74	75
	0.163 - 2"	WEATHER CONDITIONS: overcast - breezy								
3 WELL VOLUMES	164	WATER APPEARANCE / ODOR: clear - no odor								
PURGE DATE	3/27									
START TIME	1534									
END TIME	1551	COMMENTS:								
AMT PURGED	105									
SAMPLE DATE	3/27									
SAMPLE TIME	1556									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	<del>1 LITER AMBER</del>				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC <i>ok</i>		(1)		HNO <sub>3</sub>					
	125 ML PLASTIC <i>ok</i>		(1)		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
	40 ML VOA		2		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature: <i>[Signature]</i>										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	1/28/19	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE											
START TIME											
END TIME		COMMENTS:									
AMT PURGED		Not able to sample -									
SAMPLE DATE		Well located in damaged									
SAMPLE TIME		excavation area. No Entry									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/6/19	TIME	1015								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	14.5	1									
DTB (FEET)	64.0	2									
DTB - DTW	49.5	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Snow, windy, cloudy									
3 WELL VOLUMES	24										
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: 2/25/19 - Installed dedicated pump DTW 14.42									
AMT PURGED											
SAMPLE DATE		Did not sample - weather conditions									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	0753							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>ppm</del> <sup>mg/L</sup>	ORP (mv)
DTW (FEET)	144	1	0820	8.94	11.9	1216	.79	.61	0.9	71.4
DTB (FEET)	6400	2	0822	8.85	11.93	1212	.788	.61	0.77	72.9
DTB - DTW	49.6	3	0824	8.82	11.92	1209	.786	.61	0.75	82.1
CAPACITY PER FOOT	0.74 - 4"	4	0824	8.81	11.80	1208	.785	.61	0.79	84
	0.163 - 2"	WEATHER CONDITIONS: pty cloudy, calm								
3 WELL VOLUMES	24									
PURGE DATE	3/27/19	WATER APPEARANCE / ODOR:								
START TIME	0800	clear - no odor								
END TIME		COMMENTS: Dedicated pump installed								
AMT PURGED	25	in February 2019								
SAMPLE DATE	3/27									
SAMPLE TIME	0830									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE		TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1	9								
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT		4									
0.74 - 4"		WEATHER CONDITIONS: Snow, Windy, Cloudy									
0.163 - 2"											
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE											
START TIME											
END TIME		COMMENTS: 2/25/19 - Installed dedicated pump DTW = 13.94									
AMT PURGED											
SAMPLE DATE		Did not sample - weather conditions									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	0850							
DHC (FEET)	✓	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.97	1	0901	9.05	11.61	1062	.69	.53	1.09	67.3
DTB (FEET)	77.74	2	0903	9	11.61	1085	.686	.53	0.98	65.9
DTB - DTW	63.77	3	0905	8.99	11.64	1049	.682	.52	0.95	88.3
CAPACITY PER FOOT	0.74 - 4"	4	0907	8.95	11.7	1045	.679	.52	0.91	84.1
3 WELL VOLUMES	31	WEATHER CONDITIONS: overcast, slight breeze								
PURGE DATE	3/27	WATER APPEARANCE / ODOR: clear, no odor								
START TIME	0855									
END TIME		COMMENTS:								
AMT PURGED	31	dedicated pump installed								
SAMPLE DATE	3/27									
SAMPLE TIME	0914									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/28/19	TIME	1059								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	24.28	1									
DTB (FEET)	47.3	2	Did not record data.								
DTB - DTW	23.02	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy									
3 WELL VOLUMES	11	WATER APPEARANCE / ODOR: Clean									
PURGE DATE	3/28/19										
START TIME	1100										
END TIME		COMMENTS:									
AMT PURGED	8										
SAMPLE DATE	3/28										
SAMPLE TIME	1119										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/5/19	TIME	1245							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	20.38	1	1329	8.43	11.83	1277	0.83	0.64	1.03	23.1
DTB (FEET)	99.15	2	1331	8.39	11.63	1278	0.831	0.64	1.00	24.4
DTB - DTW	78.77	3	1333	8.38	11.48	1278	0.83	0.64	1.00	24.7
CAPACITY PER FOOT	0.74 - 4"	4	1335	8.37	11.34	1277	0.83	0.64	1.01	24.3
3 WELL VOLUMES	175 gal	WEATHER CONDITIONS: Pthly cldy, windy								
PURGE DATE	2/5	WATER APPEARANCE / ODOR: Clear-no odor								
START TIME	1248									
END TIME		COMMENTS: Duplicate @ 1346								
AMT PURGED										
SAMPLE DATE	2/5									
SAMPLE TIME	1340									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260		40 ML VOA		5		HCL				
8015		1 LITER AMBER				NEAT				
WQCCCTD		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
SOIL EPB		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	02/15/18	TIME	1117							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	21.64	1	1138	7.69	15.09	1906	1.231	.97	3.01	-79.9
DTB (FEET)	46.52	2	1140	7.62	13.29	1897	1.233	.97	2.95	-78.8
DTB - DTW	24.88	3	1142	7.46	13.29	1901	1.236	.97	2.49	-71.9
CAPACITY PER FOOT	0.74 - 4"	4	1144	7.4	13.26	1898	1.231	.97	2.50	-67.7
	0.163 - 2"	WEATHER CONDITIONS: Pth cloudy, windy								
3 WELL VOLUMES	55 gal	WATER APPEARANCE / ODOR:								
PURGE DATE	2/5/18	clear, no odor								
START TIME	1128									
END TIME		COMMENTS:								
AMT PURGED	60 gal									
SAMPLE DATE	2/5									
SAMPLE TIME	1145									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260		40 ML VOA		5		HCL				
8015D		1 LITER AMBER				NEAT				
WQCC T+D		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
8011		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/5/19	TIME	1204							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	1692	1	1440	7.96	12.31	2016	1.312	1.04	1.62	1.58
DTB (FEET)	51.08	2	1442	7.99	12.34	2014	1.309	1.03	1.58	1.58
DTB - DTW	34.16	3	1446	7.7	12.18	2009	1.306	1.03	1.35	1.33
CAPACITY PER FOOT	0.74 - 4"	4	1448	7.58	11.89	1988	1.292	1.02	1.52	1.52
3 WELL VOLUMES	76 gal	WEATHER CONDITIONS: pty cloudy, windy								
PURGE DATE	2/5	WATER APPEARANCE / ODOR: clear - no odor								
START TIME	1208									
END TIME		COMMENTS: @ 1230 pump lost suction @ 26 gal. Stopped - will allow to rechg before sampling								
AMT PURGED										
SAMPLE DATE	2/5	start @ 1405 - 1444								
SAMPLE TIME	1448									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260		40 ML VOA		5		HCL				
8015D		1 LITER AMBER				NEAT				
W PCE T&D		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
8011 SW EDB		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/6/19	TIME	1000							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	DRY	1								
DTB (FEET)	33.9	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: snow, windy, cloudy								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS:								
AMT PURGED		DRY - NO Samples collected								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
		40 ML VOA	5				HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/6/19	TIME	0955								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	17.58	1	1338	9.13	10.85	2105	1.368	1.08	3.32	-17.8	
DTB (FEET)	31.04	2	1340	8.00	9.67	2144	1.393	1.1	3.29	-13.5	
DTB - DTW	13.46	3	1342	7.81	8.33	2153	1.399	1.11	3.09	-15.5	
CAPACITY PER FOOT	0.74 - 4"	4	1344	7.69	7.57	2156	1.401	1.11	2.97	-12.5	
	0.163 - 2"	WEATHER CONDITIONS: snow, windy, cloudy									
3 WELL VOLUMES	7										
PURGE DATE	2/6	WATER APPEARANCE / ODOR: Clear - cloudy - pink tint									
START TIME	1134										
END TIME	1150	COMMENTS:									
AMT PURGED	7										
SAMPLE DATE	2/6										
SAMPLE TIME	1348										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
8200		1 LITER AMBER				NEAT					
8015D		250 ML AMBER		1		NEAT					
Cationic Amine		250 ML PLASTIC		1		HNO <sub>3</sub>					
WQCC T+D		125 ML PLASTIC		1		HNO <sub>3</sub>					
8270		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
Duplicate @		1353									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/6/19	TIME	0949							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	17.37	1	1421	8.0	11.8	2191	1.420	1.11	1.43	-68.1
DTB (FEET)	30.7	2	1423	7.69	10.74	2187	1.422	1.13	1.35	-67.9
DTB - DTW	13.33	3	1425	7.54	9.14	2219	1.442	1.14	1.29	-72.3
CAPACITY PER FOOT	0.74 - 4"	4	1427	7.44	8.42	2225	1.446	1.14	1.3	-69.9
	0.163 - 2"	WEATHER CONDITIONS: snow, windy, cloudy								
3 WELL VOLUMES	7									
PURGE DATE	2/6/19	WATER APPEARANCE / ODOR: clear gust 2 bails - gray - no odor								
START TIME	1116									
END TIME	1125	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	2/6									
SAMPLE TIME	1430									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260		40 ML VOA		5		HCL				
8015		1 LITER AMBER				NEAT				
Catwood/Ammono		250 ML AMBER		1		NEAT				
WQCC T&D		250 ML PLASTIC		1		HNO <sub>3</sub>				
8270(2)		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/6/19	TIME	0942							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.0	1	1442	7.7	9.93	2841	1.845	1.48	3.89	27.2
DTB (FEET)	18.59	2	1446	7.93	9.92	2833	1.841	1.48	3.67	24.2
DTB - DTW	5.59	3	1448	7.8	9.95	2845	1.849	1.48	3.58	30
CAPACITY PER FOOT	0.74 - 4"	4	1450	7.9	9.	2847	1.848	1.48	3.59	30
	0.163 - 2"	WEATHER CONDITIONS: snow, windy								
3 WELL VOLUMES	3gals	WATER APPEARANCE / ODOR:								
PURGE DATE	2/6	clear - no odor								
START TIME	1103	slight yw tint								
END TIME	1110	COMMENTS:								
AMT PURGED	2.5									
SAMPLE DATE	2/6/19									
SAMPLE TIME	1500									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
8260		1. LITER AMBER				NEAT				
8015		250 ML AMBER		1		NEAT				
(Cations/Anions)		250 ML PLASTIC		1		HNO <sub>3</sub>				
WQCLTD		125 ML PLASTIC		1		HNO <sub>3</sub>				
8270		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1115							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	20.29	1	0924	7.93	10.21	1816	1.18	.93	1.42	-58.4
DTB (FEET)	28.1	2	0928	7.74	8.76	1832	1.191	.93	1.36	-53.1
DTB - DTW	7.81	3	0930	7.64	7.89	1839	1.196	.94	1.37	-49.4
CAPACITY PER FOOT	0.74 - 4"	4	0932	7.55	7.31	1842	1.198	.94	1.4	-45.3
3 WELL VOLUMES	4 gals	WEATHER CONDITIONS: Cloudy, snow flurries, breezy								
PURGE DATE	2/19	WATER APPEARANCE / ODOR: Clear - pink - muddy No odor detected								
START TIME	1120									
END TIME	1130	COMMENTS: 2/20 - pth cldy, breezy								
AMT PURGED	1.5									
SAMPLE DATE	2/20									
SAMPLE TIME	0933									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260	40 ML VOA		5		HCL					
8075	1 LITER AMBER				NEAT					
8270	250 ML AMBER		1		NEAT					
WB CC / T + D	250 ML PLASTIC		1		HNO <sub>3</sub>					
cat / an	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	7/13/19	TIME	0814							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	23.9	1	1611	8.23	12.16	10830	7.04	6.17	10.28	52.2
DTB (FEET)	38.3	2	1613	8.04	11.46	10980	7.141	6.26	2.72	51.7
DTB - DTW	14.4	3	1615	7.97	11.66	11022	7.164	6.28	2.97	51.4
CAPACITY PER FOOT	0.74 - 4"	4	1617	7.98	11.05	11001	7.164	6.25	2.44	51.3
3 WELL VOLUMES	7	WEATHER CONDITIONS: overcast / calm								
PURGE DATE	7/13	WATER APPEARANCE / ODOR: clear - pink								
START TIME	0821									
END TIME	0834	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	7/13									
SAMPLE TIME	1620									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260	40 ML VOA		5		HCL					
8015D	1 LITER AMBER				NEAT					
WOCCTD	250 ML AMBER		1		NEAT					
Cat/Amo	250 ML PLASTIC		1		HNO <sub>3</sub>					
8270	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	2/13/19	TIME	0746							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	116.43	1								
DTB (FEET)	45.5	2	No Data Sampled.							
DTB - DTW	31.07	3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: overcast, calm								
3 WELL VOLUMES	14	WATER APPEARANCE / ODOR: Clear - pink - brown								
PURGE DATE	2/13									
START TIME										
END TIME	0806	COMMENTS: Bailed 7 gals - muddy								
AMT PURGED	7									
SAMPLE DATE	2/13									
SAMPLE TIME	1640									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	2/19/19	TIME	0931							
DHC (FEET)	18.0	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	22.09	1								
DTB (FEET)	32.0	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: pty cldy, calm, snow flurries								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		Hydrocarbon Layer								
END TIME		COMMENTS: No Samples Collected - SPH layer								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1035								
DHC (FEET)	23.75	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	24.95	1									
DTB (FEET)	31.47	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy - breezy - snow flurries									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydrocarbon layer									
PURGE DATE											
START TIME											
END TIME		COMMENTS: No Samples Collected SPH layer									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	1001								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	20.74	1	0957	8.01	11.7	1659	1.018	.84	6.0	-56.3	
DTB (FEET)	32.0	2	0959	7.77	11.7	1635	1.063	.83	5.8	-84.8	
DTB - DTW	11.26	3	1001	7.64	10.85	1637	1.064	.83	5	-81.7	
CAPACITY PER FOOT	0.74 - 4"	4	1003	7.61	10.86	1636	1.064	.83	5.1	-80.9	
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, slight breeze									
3 WELL VOLUMES	25										
PURGE DATE	2/19/19	WATER APPEARANCE / ODOR: Clear									
START TIME	1005										
END TIME	1030	COMMENTS: 2/20/19 - ptly cldy, breezy									
AMT PURGED	25										
SAMPLE DATE	2/20/19										
SAMPLE TIME	1006										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	0955								
DHC (FEET)	7.00	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	7.02	1									
DTB (FEET)	27.63	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: <i>Clay, slight breeze, snow flurries</i>									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		<i>Hydrocarbon layer</i>									
START TIME		COMMENTS:									
END TIME		<i>No Samples collected - SPH layer</i>									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: <i>[Signature]</i>											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/19/19	TIME	0938								
DHC (FEET)	22.24	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	31.51	1									
DTB (FEET)	40.0	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: cloudy, slight breeze, snow flurries									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Hydrocarbon Layer									
PURGE DATE		COMMENTS: No Samples collected - SPH layer									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE				
		40 ML VOA		5			HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER		1			NEAT				
		250 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1			NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	N/A	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm, Freezing									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: Clear w/ grayish tint, slight odor									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	2/7/19										
SAMPLE TIME	0913										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	2/13/19	TIME	0842								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	20.35	1	1331	8.32	12.57	2416	4821	4.11	3.17	46.6	
DTB (FEET)	50.0	2	1333	8.21	12.36	7409	4816	4.11	3.04	50.7	
DTB - DTW	29.65	3	1335	8.13	12.4	7404	4813	4.1	2.96	52.3	
CAPACITY PER FOOT	0.74 - 4"	4	1337	8.09	12.38	7401	4.81	4.1	3.11	53.7	
	0.163 - 2"	WEATHER CONDITIONS: clear / calm									
3 WELL VOLUMES	15	WATER APPEARANCE / ODOR: clear, pink clean, no odor									
PURGE DATE											
START TIME	0846										
END TIME	0900	COMMENTS:									
AMT PURGED	15										
SAMPLE DATE	4/13										
SAMPLE TIME	1340										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
8260		1 LITER AMBER				NEAT					
8015		250 ML AMBER		1		NEAT					
WQCC TAD		250 ML PLASTIC		1		HNO <sub>3</sub>					
Cust / Arison		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS										
GAUGE DATE	3/28/19	TIME	0730								myle	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	11.43	1	0742	8.14	14.58	6215	4.04	3.41	1.48	-70.9		
DTB (FEET)	26.0	2	0744	7.98	14.36	6234	4.052	3.42	1.52	-66		
DTB - DTW	14.57	3	0746	7.82	14.24	6252	4.064	3.43	1.55	-59		
CAPACITY PER FOOT	0.74 - 4"	4	0748	7.82	14.13	6246	4.06	3.42	1.46	-51.2		
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, calm										
PURGE DATE	3/28	WATER APPEARANCE / ODOR: clear w/ yew tint										
START TIME	0732											
END TIME	0747	COMMENTS:										
AMT PURGED	7											
SAMPLE DATE	0750											
SAMPLE TIME												
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA		5				HCL				
		1 LITER AMBER						NEAT				
		250 ML AMBER		1				NEAT				
		250 ML PLASTIC		1				HNO <sub>3</sub>				
		125 ML PLASTIC		1				HNO <sub>3</sub>				
		125 ML PLASTIC		1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1				NEAT				
		Cyanide										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/28/19	TIME	0818								
DHC (FEET)	21.59	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	22.07	1									
DTB (FEET)	26.2	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE											
START TIME											
END TIME		COMMENTS:									
AMT PURGED		SPH layer. (yellow-oily)									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/28/19	TIME	0816								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)	19.09	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE											
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/28/19	TIME	0826								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)	18.06	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		DRY									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME		COMMENTS:									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE				
		40 ML VOA		5			HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER		1			NEAT				
		250 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1			NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	3/28/19	TIME								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		COMMENTS:								
START TIME		High H <sub>2</sub> S levels around								
END TIME		API area - No entry.								
AMT PURGED		Not able to gauge/sample wells								
SAMPLE DATE		+ LDU's @ NAPIS.								
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE		TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	39.14	1		DRY							
DTB (FEET)	38.8	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
0.163 - 2"		WEATHER CONDITIONS: Overcast, breezy									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE				
		40 ML VOA		5			HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER		1			NEAT				
		250 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1			NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/27/19	TIME	1121								
DHC (FEET)	—	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)	
DTW (FEET)	39.3	1	1311	8.95	14.75	1773	1.152	0.9	3.05	27.7	
DTB (FEET)	63.5	2	1313	8.91	14.97	1778	1.156	.91	3.06	27.3	
DTB - DTW	39.23	3	1315	8.87	15.39	1777	1.155	.91	3.06	31.4	
CAPACITY PER FOOT	0.74 - 4"	4	1317	8.85	15.68	1781	1.158	.91	3.12	28.2	
3 WELL VOLUMES	12 gals	WEATHER CONDITIONS: overcast breezy									
PURGE DATE	3/27	WATER APPEARANCE / ODOR: clean - cloudy									
START TIME	1122										
END TIME	1131	COMMENTS: pump lost suction - will allow to rechg before collecting									
AMT PURGED	4.25										
SAMPLE DATE	3/27	Samples									
SAMPLE TIME	1320										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	3/27/19	TIME	0950								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	23.25	1	No Samples Not enough H <sub>2</sub> O								
DTB (FEET)	23.3	2									
DTB - DTW	.05	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		COMMENTS:									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	0948							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	9.38	1	1028	9.04	15.42	1887	1.227	.97	3.03	101.7
DTB (FEET)	61.45	2	1020	9.03	15.68	1884	1.224	.96	2.91	103.2
DTB - DTW	5207	3	1022	9.02	15.92	1884	1.224	.96	2.76	101.4
CAPACITY PER FOOT	0.74 - 4"	4	1024	9.01	16.1	1886	1.224	.96	2.72	102
	0.163 - 2"	WEATHER CONDITIONS: overcast, calm								
3 WELL VOLUMES	25	WATER APPEARANCE / ODOR: clear - no odor								
PURGE DATE	3/27									
START TIME	0958									
END TIME	1020	COMMENTS:								
AMT PURGED	16									
SAMPLE DATE	3/27									
SAMPLE TIME	1026									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	3/27/19	TIME	0942							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	1.99	1	1107	8.43	13.77	5024	3.268	2.72	0.82	-604
DTB (FEET)	76.35	2	1111	8.31	14.37	5020	3.263	2.71	0.73	-669
DTB - DTW	74.36	3	1113	8.25	14.78	5032	3.271	2.72	0.67	-68.6
CAPACITY PER FOOT	0.74 - 4"	4	1115	8.2	15.21	5039	3.276	2.72	0.61	-68.8
3 WELL VOLUMES	36	WEATHER CONDITIONS: overcast, calm								
PURGE DATE	3/27	WATER APPEARANCE / ODOR:								
START TIME	1035	pink - clear - no odor								
END TIME		COMMENTS: <del>Pump lost suction</del>								
AMT PURGED	29									
SAMPLE DATE	3/27									
SAMPLE TIME	1116									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Sample WELL ID		TEST PARAMETERS									
GAUGE DATE	N/A	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: ptly cldy, slight breeze									
PURGE DATE		WATER APPEARANCE / ODOR: clear, no odor									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		allowed to purge 15 mins before									
SAMPLE DATE	1/20/19	collecting samples									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
8260 B		1 LITER AMBER				NEAT					
WRCC TFD		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
Cut / An		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
8270		125 ML PLASTIC		1		NEAT					
cyanide											
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Sample WELL ID		TEST PARAMETERS									
GAUGE DATE		TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: pH clear, sunny, breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: clear									
PURGE DATE		COMMENTS: let water purge for 15 min.									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE	2/20/19										
SAMPLE TIME	1340										
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
8260 WCC T&D Cat/An 4270 Cyanide		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											



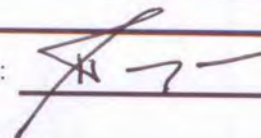
## MARATHON PETROLEUM COMPANY - GALLUP REFINERY

WELL ID		TEST PARAMETERS								
NAPIS-2		Volumes	TIME	pH	Temperature Degrees C	Conductivity (uS/m)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
GAUGE DATE	4.8.19	Initial	1405	7.51	22.93	0.1663	1.125	0.88	0.76	-106.4
GAUGE TIME	1400	1	1407	7.18	22.07	0.1606	1.103	0.86	1.50	-99.1
DHC (FEET)	ND	2	1409	6.99	21.89	0.1587	1.094	0.85	1.38	-94.4
DTW (FEET)	10.06	3	1411	6.95	21.92	0.1575	1.100	0.84	1.19	-81.9
DTB (FEET)	15.57	4								
DTB - DTW	5.51	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									
1 VOL = 0.90 PURGING DATA										
3 WELL VOLUMES	2.7	WEATHER CONDITIONS: PARTLY CLOUDY, WEST WIND, 72°								
PURGE DATE	4.8.19	WATER APPEARANCE / ODOR: CLEAR, HC ODOR, BECOMES GREYISH BROWN								
END OF PURGE TIME	1411	COMMENTS:								
PURGE AMOUNT	3.0									
DTW (FEET)	11.75									
SAMPLING DATA										
SAMPLE DATE	4.9.19	WEATHER CONDITIONS: CLEAR, WEST WIND, 60°								
DTW (FEET)	10.06	WATER APPEARANCE / ODOR: CLEAR, HC ODOR								
SAMPLE TIME	0920	COMMENTS:								
SAMPLE LOG										
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
NAPIS-2	0920	40 ML VOA	5				HCl			
		1 LITER AMBER	X 2				NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED										
OIL / WATER INTERFACE PROBE										
WATER QUALITY METER										

COMPLETED BY:

TRACY PAYNE

SIGNATURE:





## MARATHON PETROLEUM COMPANY - GALLUP REFINERY

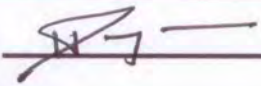
WELL ID		TEST PARAMETERS								
KA-3		Volumes	TIME	pH	Temperature Degrees C	Conductivity (uS/m)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
GAUGE DATE	4.8.19	Initial	1429	6.38	23.63	0.2307	1.539	1.22	0.83	-82.1
GAUGE TIME	1425	1	1433	6.39	24.27	0.2373	1.644	1.24	1.53	-84.5
DHC (FEET)	ND	2	1437	6.43	24.01	0.2365	1.582	1.25	1.88	-87.8
DTW (FEET)	10.00	3	1443	6.44	24.03	0.2326	1.585	1.26	1.52	-88.0
DTB (FEET)	24.33	4								
DTB - DTW	14.33	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	(0.163 - 2")									
1 VAL 2.34 GALS		PURGING DATA								
3 WELL VOLUMES	7.02	WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND, 74°								
PURGE DATE	4.8.19	WATER APPEARANCE / ODOR: CLEAR, VERY FAINT ODOR								
END OF PURGE TIME	1443	COMMENTS:								
PURGE AMOUNT	7.50									
DTW (FEET)	21.06									
SAMPLING DATA										
SAMPLE DATE	4.9.19	WEATHER CONDITIONS: CLEAR, WEST WIND, 60°								
DTW (FEET)	10.04	WATER APPEARANCE / ODOR: CLEAR, FAINT ODOR								
SAMPLE TIME	0945	COMMENTS:								
SAMPLE LOG										
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
KA-3	0945	40 ML VOA	5				HCL			
		1 LITER AMBER	1				NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED		OIL / WATER INTERFACE PROBE								
		WATER QUALITY METER								

COMPLETED BY: TRACY PAYNESIGNATURE: AP



## MARATHON PETROLEUM COMPANY - GALLUP REFINERY

WELL ID		TEST PARAMETERS								
NAPIS-3		Volumes	TIME	pH	Temperature Degrees C	Conductivity (uS/m)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
GAUGE DATE	4.8.19	Initial	1505	6.83	22.64	0.2481	1.686	1.34	5.65	-114.2
GAUGE TIME	1458	1	1514	7.29	20.38	0.325	2.317	1.88	1.73	9.1
DHC (FEET)	ND	2								
DTW (FEET)	11.13	3		BAILED DOWN @ 4.5 GALLONS						
DTB (FEET)	31.60	4								
DTB - DTW	20.57	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									
3.35 = 1 YOL		PURGING DATA								
3 WELL VOLUMES	10.05	WEATHER CONDITIONS: CLEAR, CALM, 72°								
PURGE DATE	4.8.19	WATER APPEARANCE / ODOR: CLEAR TO BROWN, V. FAINT ODOR								
END OF PURGE TIME	1521	COMMENTS:								
PURGE AMOUNT	4.5									
DTW (FEET)	31.11									
SAMPLING DATA										
SAMPLE DATE	4.9.19	WEATHER CONDITIONS: CLEAR, WEST WIND, 63°								
DTW (FEET)	11.56	WATER APPEARANCE / ODOR: CLEAR, V. FAINT ODOR								
SAMPLE TIME	1015	COMMENTS: COLLECTED DUPO1, EB01 @ 1040 FB01 @ 1100 01								
SAMPLE LOG										
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
NAPIS-3	1015	40 ML VOA	5				HCL			
		40 ML VOA	3				NA <sub>2</sub> S <sub>2</sub> O <sub>3</sub>			
		1 LITER AMBER	1				NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED		OIL / WATER INTERFACE PROBE								
		WATER QUALITY METER								

COMPLETED BY: TRACY PAYNESIGNATURE: 



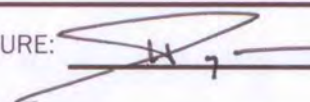
## MARATHON PETROLEUM COMPANY - GALLUP REFINERY

WELL ID		TEST PARAMETERS								
WEST LDU		Volumes	TIME	pH	Temperature Degrees C	Conductivity (uS/m)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
GAUGE DATE	4.9.19	Initial	1145	5.52	35.58	0.9353	5.067	4.24	2.94	-78.9
GAUGE TIME	1130	1								
DHC (FEET)	ND	2								
DTW (FEET)	9.40	3								
DTB (FEET)	12.50	4								
DTB - DTW	3.10	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									
PURGING DATA - NA										
3 WELL VOLUMES		WEATHER CONDITIONS:								
PURGE DATE		WATER APPEARANCE / ODOR:								
END OF PURGE TIME		COMMENTS:								
PURGE AMOUNT										
DTW (FEET)										
SAMPLING DATA										
SAMPLE DATE	4.9.19	WEATHER CONDITIONS:								
DTW (FEET)	9.40	CLEAR, SW WIND, 70°								
SAMPLE TIME	1145	WATER APPEARANCE / ODOR:								
		CLEAR, LT GREY, FAINT ODOR								
		COMMENTS:								
SAMPLE LOG										
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
WEST LDU	1145	40 ML VOA	5				HCL			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
INSTRUMENTS USED OIL / WATER INTERFACE PROBE + WATER QUALITY METER										

COMPLETED BY:

IRALY PAYNE

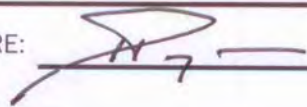
SIGNATURE:





## MARATHON PETROLEUM COMPANY - GALLUP REFINERY

WELL ID		TEST PARAMETERS								
EAST LDU		Volumes	TIME	pH	Temperature Degrees C	Conductivity (uS/m)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
GAUGE DATE	4.9.19	Initial	1200	5.89	30.29	0.0632	0.368	0.27	1.77	-2004
GAUGE TIME	1135	1								
DHC (FEET)	ND	2								
DTW (FEET)	0.51	3								
DTB (FEET)	12.38	4								
DTB - DTW	11.87	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									
PURGING DATA → NA										
3 WELL VOLUMES		WEATHER CONDITIONS:								
PURGE DATE		WATER APPEARANCE / ODOR:								
END OF PURGE TIME		COMMENTS:								
PURGE AMOUNT										
DTW (FEET)										
SAMPLING DATA										
SAMPLE DATE	4.9.19	WEATHER CONDITIONS:								
DTW (FEET)	0.51	WATER APPEARANCE / ODOR:								
SAMPLE TIME	1200	COMMENTS:								
SAMPLE LOG										
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
EAST LDU	1200	40 ML VOA	5				HCL			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
INSTRUMENTS USED OIL / WATER INTERFACE PROBE + WATER QUALITY METER										

COMPLETED BY: TRACY PAYNESIGNATURE: 





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1158							
DHC (FEET)	4.39	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	4.74	1								
DTB (FEET)	17.42	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: overcast, breezy								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS: No Samples Collected SPH layer								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

E013

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/6/19	TIME	1111							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	624	1	1137	7.1	1123	7248	4.711	4.01	2.03	-100.4
DTB (FEET)	20.48	2	1139	7.62	11.57	7263	4.721	4.02	1.86	-99.7
DTB - DTW	14.24	3	1141	6.94	11.97	7272	4.727	4.02	1.8	-97.6
CAPACITY PER FOOT	0.74 - 4"	4	1143	6.87	12.31	7280	4.732	4.03	1.74	-95.2
	0.163 - 2"	WEATHER CONDITIONS: overcast, slight breeze								
3 WELL VOLUMES	32	WATER APPEARANCE / ODOR: clear								
PURGE DATE	5/6/19									
START TIME										
END TIME		COMMENTS:								
AMT PURGED	28									
SAMPLE DATE										
SAMPLE TIME	1145									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0955							
DHC (FEET)	4.55	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	5.66	1								
DTB (FEET)	18.45	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, culm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer = 1.11								
PURGE DATE										
START TIME										
END TIME		COMMENTS: No Sample collected								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup / EPB

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0935							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <input checked="" type="checkbox"/>	ORP (mv)
DTW (FEET)	6.55	1	1347	6.34	13.24	2874	1.868	1.5	2.63	-63.5
DTB (FEET)	22.15	2	1349	6.3	13.35	2878	1.871	1.51	2.45	-64.1
DTB - DTW	15.6	3	1351	6.26	13.49	2879	1.872	1.51	2.31	-64
CAPACITY PER FOOT	0.74 - 4"	4	1353	6.25	13.61	2882	1.873	1.51	2.3	-63.7
3 WELL VOLUMES	35	WEATHER CONDITIONS: Clear, Culm								
PURGE DATE	5/13	WATER APPEARANCE / ODOR: Clear - slight yw tint - Brown								
START TIME										
END TIME	0947	COMMENTS: will allow to recharge before collecting samples								
AMT PURGED	17.5									
SAMPLE DATE	5/13									
SAMPLE TIME	1355									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
1406 Duplicate										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0920							
DHC (FEET)	12.95	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.12	1								
DTB (FEET)	17.75	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.17								
START TIME										
END TIME		COMMENTS: No Samples collected.								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0930							
DHC (FEET)	15.55	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	16.39	1								
DTB (FEET)	23.77	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: <i>culm, clear</i>								
PURGE DATE		WATER APPEARANCE / ODOR: <i>SPH layer = 0.84</i>								
START TIME										
END TIME		COMMENTS: <i>no samples collected</i>								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature: <i>[Signature]</i>										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0927							
DHC (FEET)	10.72	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	10.82	1								
DTB (FEET)	17.62	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.1								
START TIME										
END TIME		COMMENTS: No samples collected								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0925							
DHC (FEET)	11.95	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	12.43	1								
DTB (FEET)	21.98	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: clear, calm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer = 0.48								
PURGE DATE										
START TIME										
END TIME		COMMENTS: No Samples Collected								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/13/19	TIME	1200							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	12.27	1	1328	6.91	12.64	2578	1.676	1.34	3.67	-176.9
DTB (FEET)	22.7	2	1330	6.65	13.33	2562	1.665	1.33	2.89	-76.1
DTB - DTW	10.43	3	1332	6.52	14.27	2553	1.66	1.33	2.41	-74.3
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	23	plc - slight freeze								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME	1305	clear - gray								
END TIME	1325	COMMENTS:								
AMT PURGED	23									
SAMPLE DATE	5/13									
SAMPLE TIME	1336									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	1032							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	6.23	1	1432	6.39	14.66	2998	1.949	1.57	2.67	-84.4
DTB (FEET)	15.99	2	1434	6.3	15.06	3010	1.956	1.58	2.24	-85.9
DTB - DTW	9.76	3	1436	6.25	15.55	3004	1.953	1.57	2.21	-86.2
CAPACITY PER FOOT	0.74 - 4"	4	1438	6.24	15.95	3005	1.953	1.57	2.78	-87.1
3 WELL VOLUMES	22	WEATHER CONDITIONS: p/c - calm								
PURGE DATE		WATER APPEARANCE / ODOR: clear - pink - brown/silty								
START TIME	1034									
END TIME	1046	COMMENTS: will allow to rehg before collecting samples								
AMT PURGED	7									
SAMPLE DATE	5/13									
SAMPLE TIME	1440									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

2X

WELL ID		TEST PARAMETERS								
GAUGE DATE	9/13/19	TIME	1005							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	5.24	1	1412	6.45	14.63	4528	2.943	2.43	1.86	-81.3
DTB (FEET)	18.14	2	1414	6.43	15.01	4534	2.947	2.43	1.69	-83.5
DTB - DTW	12.9	3	1416	6.41	15.44	4539	2.95	2.44	1.63	-84.6
CAPACITY PER FOOT	0.74 - 4"	4	1418	6.4	15.93	4551	2.958	2.44	1.87	-84.8
3 WELL VOLUMES	29	WEATHER CONDITIONS: Clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: Clear - gray								
START TIME	1010									
END TIME	1026	COMMENTS:								
AMT PURGED	20	will allow to rechg before								
SAMPLE DATE	9/13	collecting samples								
SAMPLE TIME	1420									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER		2X		NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	1146								
DHC (FEET)	17.25	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	17.35	1									
DTB (FEET)	25.6	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Cloudy, slight breeze									
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.1									
START TIME											
END TIME		COMMENTS: No Samples Collected									
AMT PURGED											
AMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/9/19	TIME	1154							
DHC (FEET)	11.4	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	21.25	1	No parameters taken Did not record data.							
DTB (FEET)	9.65	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	21	WEATHER CONDITIONS: Cloudy, slight breeze								
PURGE DATE		WATER APPEARANCE / ODOR: clear, oily layer - orange tint shien - odor								
START TIME	1154									
END TIME		COMMENTS:								
AMT PURGED	12									
SAMPLE DATE	5/9									
SAMPLE TIME	1228									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	1152							
DHC (FEET)	4.65	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	5.04	1								
DTB (FEET)	17.46	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Cloudy, slight breeze								
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.39								
START TIME										
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	1055							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	11.59	1	1108	6.28	13.95	15034	9.772	8.79	1.59	-87.6
DTB (FEET)	19.48	2	1110	6.21	14.06	15039	9.775	8.79	1.43	-87.1
DTB - DTW	7.89	3	1112	6.16	14.19	15041	9.777	8.79	1.33	-85.9
CAPACITY PER FOOT	0.74 - 4"	4	1114	6.12	14.33	15039	9.775	8.79	1.36	-84.9
3 WELL VOLUMES	4	WEATHER CONDITIONS: P/C - slight breeze								
PURGE DATE	5/13	WATER APPEARANCE / ODOR: Clear - slight pink								
START TIME	1058									
END TIME	1108	COMMENTS: Water inside vault below pipe plug Removed water + guaged.								
AMT PURGED	4									
SAMPLE DATE	5/13									
SAMPLE TIME	1115									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

2X

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0825								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)	
DTW (FEET)	8.35	1	0728	6.19	16.56	5242	3.407	2.84	1.12	-82.1	
DTB (FEET)	14.10	2	0730	6.17	16.32	5241	3.406	2.84	1.02	-80.4	
DTB - DTW	5.75	3	0732	6.17	16.24	5227	3.398	2.83	1.19	-79	
CAPACITY PER FOOT	0.74 - 4"	4	0734	6.16	15.96	5234	3.402	2.84	1.97	-78	
3 WELL VOLUMES	3	WEATHER CONDITIONS: Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR: Clear, slight odor									
START TIME											
END TIME	0830	COMMENTS: well allow to tech before collecting									
AMT PURGED	2	samples.									
SAMPLE DATE	5/14/19										
SAMPLE TIME	0735										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER		2X		NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	0820								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	14.05	1	1251	6.54	11.88	2564	1.667	1.33	1.18	-94.7	
DTB (FEET)	24.11	2	1253	6.46	11.84	2570	1.671	1.34	1.1	-95	
DTB - DTW	10.06	3	1255	6.4	11.88	2574	1.673	1.34	1.05	-94.4	
CAPACITY PER FOOT	0.74 - 4"	4	1257	6.36	11.94	2579	1.676	1.34	1	-93.8	
3 WELL VOLUMES	5	WEATHER CONDITIONS: p/c, Calm									
PURGE DATE		WATER APPEARANCE / ODOR: clear - murky (black)									
START TIME											
END TIME	0828	COMMENTS: will allow to reach before									
AMT PURGED	1 1/2	collecting samples									
SAMPLE DATE	5/9/19										
SAMPLE TIME	1300										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

2x/EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/16/19	TIME	1012							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	7.54	1	1152	6.74	15.59	2173	1.413	1.12	3.71	-101.4
DTB (FEET)	2538	2	1154	6.59	15.74	2182	1.418	1.12	3.32	-97.5
DTB - DTW	17.84	3	1156	6.52	16.01	2180	1.417	1.12	3.14	-94.8
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	9	Overcast, calm.								
PURGE DATE	5/16	WATER APPEARANCE / ODOR:								
START TIME	1014	clear - pink - brown/muddy								
END TIME	1020	COMMENTS:								
AMT PURGED	3	with inside vault below plug.								
SAMPLE DATE	5/16	- will allow to reach before collecting								
SAMPLE TIME	1200	samples								
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER		2x		NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	0834								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	11.31	1	Did not record readings								
DTB (FEET)	17.47	2									
DTB - DTW	6.16	3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	3	WEATHER CONDITIONS: p/c, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	0836	Clear - Cloudy - pink									
END TIME		COMMENTS:									
AMT PURGED	3										
SAMPLE DATE	5/9										
SAMPLE TIME	0845										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/13/19	TIME	0832							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	7.14	1	0740	5.88	16.05	14098	9.164	8.2	1.01	-78.5
DTB (FEET)	9.89	2	0742	5.9	15.91	14129	9.184	8.22	0.84	-78.9
DTB - DTW	2.75	3	0744	5.92	15.77	14141	9.191	8.23	0.76	-79.3
CAPACITY PER FOOT	0.74 - 4"	4	0746	5.93	15.64	14140	9.191	8.23	0.72	-79.1
3 WELL VOLUMES	6	WEATHER CONDITIONS: Clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: Clean - gray - odor - sheer								
START TIME										
END TIME	0838	COMMENTS: well allow to rehy before collecting								
AMT PURGED	3	samples.								
SAMPLE DATE	5/14									
SAMPLE TIME	0847									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/13/19	TIME	0844							
DHC (FEET)	—	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	6.7	1	0806	6.06	14.75	3593	2.336	1.9	1.05	-92.1
DTB (FEET)	9.89	2	0808	6.	14.73	3585	2.331	1.9	0.85	-92.3
DTB - DTW	3.19	3	0810	6.	14.64	3584	2.33	1.9	0.68	-91.6
CAPACITY PER FOOT	0.74 - 4"	4	0812	6.	14.6	3582	2.328	1.9	0.56	-90.6
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: dk gray - odor - sheer								
START TIME										
END TIME		COMMENTS: will allow for rehy before collecting samples								
AMT PURGED	1.5									
SAMPLE DATE	5/14/19									
SAMPLE TIME	0804									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/9/19	TIME	1055							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	24.64	1	1112	6.61	12.55	2458	1.598	1.27	2.63	-84
DTB (FEET)	35.25	2	1114	6.49	12.5	2460	1.599	1.28	2.26	-84
DTB - DTW	10.61	3	1116	6.42	12.46	2460	1.599	1.28	2.13	-82.7
CAPACITY PER FOOT	0.74 - 4"	4	1118	6.39	12.45	2459	1.598	1.28	2.07	-81.4
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	5	p/c, calm								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		clear - cloudy - pink								
END TIME	1010	COMMENTS:								
AMT PURGED	4.5									
SAMPLE DATE	1020									
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

JDB

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	1143								
DHC (FEET)	12.95	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	13.02	1									
DTB (FEET)	20.36	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Cloudy, Calm									
PURGE DATE		WATER APPEARANCE / ODOR: SPH = 0.07									
START TIME											
END TIME		COMMENTS: No Samples Collected Hydrocarbon Layer.									
AMT PURGED											
AMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1310							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	2153	1	1322	6.98	13.8	5156	3.352	2.79	2.47	-90.9
DTB (FEET)	30.47	2	1324	6.86	13.88	5176	3365	2.8	2.23	-88.4
DTB - DTW	8.94	3	1326	6.76	14.11	5172	3362	2.8	2.16	-85.2
CAPACITY PER FOOT	0.74 - 4"	4	1328	6.67	14.32	5179	3366	2.8	2.12	-81.9
3 WELL VOLUMES	4	WEATHER CONDITIONS: overcast, slight breeze.								
PURGE DATE		WATER APPEARANCE / ODOR: Clear - cloudy - pink								
START TIME	1312	COMMENTS:								
END TIME	1325									
AMT PURGED	3.5									
SAMPLE DATE	5/6									
SAMPLE TIME	1330									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS											
GAUGE DATE	5/6/19	TIME	1346								mail	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	12.0	1	1537	7	10.36	5153	3.35	2.79	3.49	73.3		
DTB (FEET)	19.43	2	1539	6.79	10.46	5141	3.34	2.78	1.9	59.1		
DTB - DTW	7.43	3	1541	6.66	10.76	5135	3.38	2.78	1.65	53.9		
CAPACITY PER FOOT	0.74 - 4"	4	1543	6.59	10.81	5121	3.3	2.78	1.6	50.1		
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: overcast, breezy										
PURGE DATE	5/6	WATER APPEARANCE / ODOR: clear, cloudy, pink, muddy										
START TIME	1348											
END TIME	1355	COMMENTS: well allow to rechg before collecting samples - too muddy										
AMT PURGED												
SAMPLE DATE	5/6											
SAMPLE TIME	1546											
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE							
	40 ML VOA		5		HCL							
	1 LITER AMBER				NEAT							
	250 ML AMBER		1		NEAT							
	250 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		HNO <sub>3</sub>							
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>							
	125 ML PLASTIC		1		NEAT							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/6/19	TIME	1305							
DHC (FEET)	7.8	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	8.65	1								
DTB (FEET)	17.15	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES		WEATHER CONDITIONS: Overcast, slight breeze								
PURGE DATE										
START TIME										
END TIME										
AMT PURGED		WATER APPEARANCE / ODOR: SPH = 0.85								
SAMPLE DATE		COMMENTS: No Samples Collected								
SAMPLE TIME		SPH Layer								
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1050							
DHC (FEET)	—	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	5.73	1	1053	6.69	12.22	16920	10.99	9.98	0.95	93
DTB (FEET)	14.72	2	1055	6.62	12.55	16932	11	9.99	0.9	89.3
DTB - DTW	8.99	3	1057	6.56	12.86	16947	11.01	10	0.97	87.4
CAPACITY PER FOOT	0.74 - 4"	4	1059	6.52	13.16	16966	11.62	10.01	1.33	86.2
3 WELL VOLUMES	4	WEATHER CONDITIONS: overcast, slight breeze								
PURGE DATE		WATER APPEARANCE / ODOR: clear - slight ylw tint								
START TIME	1052									
END TIME	11	COMMENTS:								
AMT PURGED	4									
SAMPLE DATE	5/6									
SAMPLE TIME	1106									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1015								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	10927	1	1032	7.05	16.65	3587	2.332	1.9	3.46	95.1	
DTB (FEET)	1616	2	1034	6.99	16.79	3584	2.33	1.9	3.4	92.8	
DTB - DTW	689	3	1036	6.96	17.02	3578	2.326	1.89	3.5	90.8	
CAPACITY PER FOOT	0.74 - 4"	4	1038	6.93	17.06	3580	2.327	1.89	3.43	90	
	0.163 - 2"	WEATHER CONDITIONS: overcast, calm - slight breeze									
3 WELL VOLUMES	3	WATER APPEARANCE / ODOR: clear - slight yew tint									
PURGE DATE	5/6										
START TIME	1018										
END TIME	1030	COMMENTS:									
AMT PURGED	3										
SAMPLE DATE	5/6/19										
SAMPLE TIME	1040										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

2X-1L Am

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	0930								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)	
DTW (FEET)	93.72	1	0947	6.91	12.53	3335	2.168	1.76	1.71	81	
DTB (FEET)	22.84	2	0949	6.87	12.65	3338	2.17	1.76	1.68	81.4	
DTB - DTW	19.12	3	0951	6.83	12.79	3340	2.171	1.76	1.67	82.2	
CAPACITY PER FOOT	0.74 - 4"	4	0953	6.8	12.93	3344	2.173	1.76	1.66	83.2	
3 WELL VOLUMES	9	WEATHER CONDITIONS: overcast / calm									
PURGE DATE	5/6	WATER APPEARANCE / ODOR: Clear - slight pink									
START TIME											
END TIME	0945	COMMENTS:									
AMT PURGED	9										
SAMPLE DATE	5/6										
SAMPLE TIME	0955										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER		2X		NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	0852	mg/L						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.81	1	0902	7.72	12.69	4319	2807	2.31	5.5	73.3
DTB (FEET)	2320	2	0904	7.42	12.68	4316	2805	2.31	4.64	86.8
DTB - DTW	9.39	3	0906	7.29	12.73	4319	2808	2.31	4.47	85.9
CAPACITY PER FOOT	0.74 - 4"	4	0908	7.17	12.79	4323	2.81	2.31	4.45	85.2
3 WELL VOLUMES	5	WEATHER CONDITIONS: overcast clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: clear - pink								
START TIME										
END TIME	0904	COMMENTS:								
AMT PURGED	5									
SAMPLE DATE	5/6									
SAMPLE TIME	0910									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup - EDB

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1410							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	7.72	1	1429	6.69	11.78	5588	3.62	3.04	1.61	87.4
DTB (FEET)	22.81	2	1431	6.63	12.05	5599	3.64	3.05	1.56	83.7
DTB - DTW	15.09	3	1433	6.57	12.35	5608	3.645	3.05	1.54	82.3
CAPACITY PER FOOT	0.74 - 4"	4	1435	6.54	12.64	5621	3.653	3.06	1.54	81
3 WELL VOLUMES	17	WEATHER CONDITIONS: overcast, slight breeze								
PURGE DATE	5/6	WATER APPEARANCE / ODOR: clear - cloudy - pink								
START TIME	14.13									
END TIME		COMMENTS:								
AMT PURGED	6.5									
SAMPLE DATE	5/6									
SAMPLE TIME	1437									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
1443	Duplicate									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/7/19	TIME	0915							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	13.25	1	0933	7.25	12.49	3496	2.272	1.85	1.17	89.5
DTB (FEET)	27.75	2	0935	7.21	12.67	3505	2.278	1.85	1.17	88.3
DTB - DTW	14.5	3	0937	7.18	12.89	3512	2.283	1.86	1.18	87.4
CAPACITY PER FOOT	0.74 - 4"	4	0939	7.15	13.11	3518	2.287	1.86	1.19	87.3
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, slight breeze								
PURGE DATE	5/7	WATER APPEARANCE / ODOR: Clear - cloudy								
START TIME	0920									
END TIME	0931	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	5/7									
SAMPLE TIME	0940									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER		2X		NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/9/19	TIME	0946							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen mg/L	ORP (mv)
DTW (FEET)	22.04	1	1008	6.71	12.3	2109	1371	1.09	1.46	75.8
DTB (FEET)	33.2	2	1010	6.66	12.27	2110	1371	1.09	1.46	74.1
DTB - DTW	11.16	3	1012	6.64	12.25	2110	1371	1.09	1.46	72.9
CAPACITY PER FOOT	0.74 - 4"	4	1014	6.61	12.23	2109	1371	1.09	1.44	72.3
3 WELL VOLUMES	5	WEATHER CONDITIONS: p/c, calm								
PURGE DATE	5/9	WATER APPEARANCE / ODOR: clear - cloudy - pink								
START TIME	1000	COMMENTS:								
END TIME	1012									
AMT PURGED	5									
SAMPLE DATE	5/9									
SAMPLE TIME	1016									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
1016	Duplicate									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDR

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/9/19	TIME	0910								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)	
DTW (FEET)	18.09	1	0930	6.84	12.83	4255	2.766	2.28	6.53	66.1	
DTB (FEET)	27.68	2	0932	6.78	12.83	4258	2.768	2.28	6.33	67.5	
DTB - DTW	9.59	3	0934	6.75	12.85	4260	2.769	2.28	6.23	67.8	
CAPACITY PER FOOT	0.74 - 4"	4	0936	6.73	13.06	4255	2.766	2.28	6.61	67.8	
3 WELL VOLUMES	5	WEATHER CONDITIONS: plc, calm									
PURGE DATE		WATER APPEARANCE / ODOR: clear									
START TIME											
END TIME		COMMENTS:									
AMT PURGED	5										
SAMPLE DATE	5/9										
SAMPLE TIME	0938										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER		2X		NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup / ERB

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/16/19	TIME	1030								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>(%)</del>	ORP (mv)	
DTW (FEET)	8.49	1	1042	6.48	15.21	2411	1.567	1.25	1.73	-94.7	
DTB (FEET)	16.45	2	1044	6.4	15.3	2413	1.568	1.25	1.7	-94.6	
DTB - DTW	7.96	3	1046	6.36	15.43	2414	1.569	1.25	1.83	-94	
CAPACITY PER FOOT	0.74 - 4"	4	1048	6.34	15.57	2414	1.569	1.25	2	-93.3	
3 WELL VOLUMES	4	WEATHER CONDITIONS: Overcast / slight breeze									
PURGE DATE	5/16	WATER APPEARANCE / ODOR: Clear - pink									
START TIME	1033										
END TIME	1042	COMMENTS: WTR inside vault below plug.									
AMT PURGED	4										
SAMPLE DATE	5/16										
SAMPLE TIME	1050										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
1056		Duplicate									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/14/19	TIME	1104								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		COMMENTS:									
START TIME		Well location was paved over									
END TIME		when area was repaved. Have ticket									
AMT PURGED		in to re-install well vault, check									
SAMPLE DATE		integrity of well. Will sample as soon									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
		as well is accessible									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	3/16/19	TIME	1020		mg/L						
DHC (FEET)	9.11.1	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	9.18	1									
DTB (FEET)	24.60	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: overcast / slight breeze									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: 3PH layer = <del>0.08</del> 0.08									
PURGE DATE		COMMENTS: Did not collect sample									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	6/27/19	TIME	10 45								
DHC (FEET)	9.81	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	9.919	1									
DTB (FEET)	24.60	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear, breezy - plc									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		SPT layer = 0.08									
END TIME		COMMENTS:									
AMT PURGED		No Samples Collected									
SAMPLE DATE		wtk inside vault below plug -									
SAMPLE TIME		bailer removed									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											

6/27/19 - Remeasured due to discrepancy on  
lab report - Sample analyzed was for MKTF-38  
Not MKTF-37 as needed.





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup / EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/14/19	TIME	0915							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	8.43	1	0928	6.43	14.07	2941	1.912	1.54	2.41	39.1
DTB (FEET)	24.60	2	0930	6.42	14.16	2938	1.91	1.54	2.3	40.5
DTB - DTW	16.17	3	0932	6.42	14.18	2940	1.911	1.54	2.25	41.7
CAPACITY PER FOOT	0.74 - 4"	4	0934	6.42	14.25	2939	1.91	1.54	2.2	42.9
3 WELL VOLUMES	8	WEATHER CONDITIONS: Clear, calm								
PURGE DATE	5/14	WATER APPEARANCE / ODOR: clear - pink.								
START TIME	0920	COMMENTS:								
END TIME	0930									
AMT PURGED	8									
SAMPLE DATE	5/14									
SAMPLE TIME	0936									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
0944		Duplicate								
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										

Used wrong sheet - should be for  
MKTF-38





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/14/19	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	8.66	1									
DTB (FEET)	2029	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME	0930										
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

2XL

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	1/27/19	TIME	1104							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	8.75	1	1128	6.70	17.19	2.683	2.05	1.66	2.69	109
DTB (FEET)	20.29	2	1130	6.61	17.33	2.691	2.05	1.66	2.21	108
DTB - DTW	11.54	3	1132	6.62	17.61	2.704	2.047	1.65	2.11	102.2
CAPACITY PER FOOT	0.74 - 4"	4	1134	6.67	17.92	2.723	2.047	1.65	2.07	96.9
	0.163 - 2"	WEATHER CONDITIONS: 0 p/c + clear, breezy								
3 WELL VOLUMES	lp	WATER APPEARANCE / ODOR: clear - pink - muddy								
PURGE DATE	6/27									
START TIME	1110									
END TIME	1118	COMMENTS: wtr inside vault below plug								
AMT PURGED	5									
SAMPLE DATE	6/27									
SAMPLE TIME	<del>1135</del> 1135									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER		2		NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										

- Original Field log for MKTF-38 was incorrect.  
Had Resampled 6/27/19 to verify information.





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE											
START TIME											
END TIME		COMMENTS: Did not sample. Well located									
AMT PURGED		in barricaded area - Excavation									
SAMPLE DATE		Area - no entry. WTR line									
SAMPLE TIME		repairs. Will try @ later date									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	6/5/19	TIME	1240								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	8.69	1	1245	6.22	16.17	30270	19.67	18.83	1.65	-88.0	
DTB (FEET)	15.20	2	1247	6.12	16.35	30357	19.73	18.89	1.35	-91.6	
DTB - DTW	6.51	3	1249	6.06	16.54	30388	19.75	18.91	1.17	-94.1	
CAPACITY PER FOOT	0.74 - 4"	4	1251	6.03	16.72	30440	19.78	18.94	1.08	-95.7	
3 WELL VOLUMES	3	WEATHER CONDITIONS: Cloudy - breezy									
PURGE DATE		WATER APPEARANCE / ODOR: clean - gray - sheen, odor									
START TIME	1242										
END TIME		COMMENTS: - Excavated area was opened to rebuild area. Able to access well & Sample. (Repaired w/ leak adjacent to well (Runs E-W).									
AMT PURGED	2.5										
SAMPLE DATE	6/5/19										
SAMPLE TIME	1255										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/6/19	TIME	1500							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	12.36	1	1513	6.79	12.44	12516	8.136	7.21	4.57	94.7
DTB (FEET)	23.64	2	1515	6.75	12.7	12531	8.145	7.22	4.49	91.9
DTB - DTW	11.28	3	1517	6.7	12.96	12541	8.152	7.22	4.33	90.7
CAPACITY PER FOOT	0.74 - 4"	4	1519	6.66	13.23	12552	8.159	7.23	4.21	90.1
3 WELL VOLUMES	6	WEATHER CONDITIONS: overcast, breezy								
PURGE DATE	5/6	WATER APPEARANCE / ODOR:								
START TIME	1503									
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	5/6									
SAMPLE TIME	1521									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup - ERB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/7/19	TIME	1000							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>(mg)</del>	ORP (mv)
DTW (FEET)	19.52	1	1022	7.56	13.81	4131	2685	221	2.15	88
DTB (FEET)	40.10	2	1024	7.53	14.11	4138	269	221	2.01	832
DTB - DTW	2058	3	1026	7.49	14.37	4142	2692	221	1.96	81
CAPACITY PER FOOT	0.74 - 4"	4	1028	7.47	14.51	4148	2696	222	1.94	80.5
3 WELL VOLUMES	10	WEATHER CONDITIONS: partly cloudy, slight breeze								
PURGE DATE	5/7	WATER APPEARANCE / ODOR: Clear								
START TIME	1009									
END TIME	1020	COMMENTS:								
AMT PURGED	9									
SAMPLE DATE	5/7									
SAMPLE TIME	1030									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
1035	Duplicate									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	TIME	mg/L								
DHC (FEET)	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	1	0856	7.56	12.15	4655	3.026	2.5	1.43	79.5	
DTB (FEET)	2	0858	7.54	12.02	4667	3.033	2.51	1.18	83	
DTB - DTW	3	0900	7.52	11.94	4669	3.035	2.51	1.13	85.2	
CAPACITY PER FOOT	4	0902	7.5	11.86	4671	3.036	2.51	1.1	87.1	
3 WELL VOLUMES	WEATHER CONDITIONS: overcast, calm									
PURGE DATE	WATER APPEARANCE / ODOR: clear w/ orange tint									
START TIME										
END TIME	COMMENTS:									
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request	CONTAINER TYPE	NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA	5		HCL						
	1 LITER AMBER			NEAT						
	250 ML AMBER	1		NEAT						
	250 ML PLASTIC	1		HNO <sub>3</sub>						
	125 ML PLASTIC	1		HNO <sub>3</sub>						
	125 ML PLASTIC	1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC	1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/8/19	TIME	0850							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>ppm</del>	ORP (mv)
DTW (FEET)	3.97	1	0900	6.85	9	13626	8.857	7.87	2.17	93.7
DTB (FEET)	15.43	2	0902	6.82	8.81	13751	8.938	7.94	1.96	91
DTB - DTW	11.46	3	0904	6.79	8.65	13806	8.974	7.98	1.89	89.4
CAPACITY PER FOOT	0.74 - 4"	4	0906	6.76	8.55	13815	8.98	7.98	1.81	88.5
3 WELL VOLUMES	6	WEATHER CONDITIONS: cloudy, slight breeze, Intermittent Rain Shower								
PURGE DATE	5/8	WATER APPEARANCE / ODOR: clear								
START TIME	0855	COMMENTS:								
END TIME										
AMT PURGED	6									
MPLE DATE	5/8									
SAMPLE TIME	0910									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER		2x		NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/8/19	TIME	0820815							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	34.2	1	0829	7.23	11.03	9774	6353	5.52	2.86	81.5
DTB (FEET)	31.15	2	0831	7.17	10.71	9812	6378	5.54	2.7	84
DTB - DTW	14.95	3	0833	7.12	10.51	9830	639	5.55	2.77	85.2
CAPACITY PER FOOT	0.74 - 4"	4	0835	7.08	10.3	9845	6399	5.56	2.79	85.6
3 WELL VOLUMES	40	WEATHER CONDITIONS: cloudy, Rain Showers, slight breeze								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME	5/8	clear								
END TIME	0828	COMMENTS:								
AMT PURGED	6									
MPLE DATE	5/8									
SAMPLE TIME	0836									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/14/19	TIME	1106								
DHC (FEET)	12.43	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	13.02	1									
DTB (FEET)	3024	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		8PH layer = 0.59									
START TIME		COMMENTS:									
END TIME		No Samples Collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	6/5/19	TIME	1038							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: cloudy, calm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: dark / odor								
PURGE DATE										
START TIME										
END TIME		COMMENTS: grab sample only								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/8/19	TIME	0955								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	19.54	1	Did not record readings								
DTB (FEET)	50.00	2									
DTB - DTW	30.46	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy, breezy									
3 WELL VOLUMES	15	WATER APPEARANCE / ODOR: clean									
PURGE DATE	5/8										
START TIME											
END TIME		COMMENTS:									
AMT PURGED	13										
MPLE DATE	5/8										
SAMPLE TIME	1020										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/8/19	TIME	0957							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS: Did not gauge due to high H <sub>2</sub> S levels inside STP1 fence area.								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE			
		40 ML VOA		5			HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER		1			NEAT			
		250 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC		1			NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup / FOB

WELL ID		TEST PARAMETERS										
GAUGE DATE	5/8	TIME	1050								null	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)		
DTW (FEET)	12.09	1	1107	6.74	13.97	8018	5.212	4.47	1.37	-88.5		
DTB (FEET)	26.0	2	1109	6.63	13.9	8038	5.225	4.48	0.98	-85.6		
DTB - DTW	13.91	3	1111	6.57	13.84	8048	5.231	4.49	0.86	-81		
CAPACITY PER FOOT	0.74 - 4"	4	1113	6.52	13.74	8056	5.236	4.49	0.98	-75.8		
3 WELL VOLUMES	7	WEATHER CONDITIONS: Cloudy, breezy										
PURGE DATE		WATER APPEARANCE / ODOR: yew										
START TIME												
END TIME		COMMENTS:										
AMT PURGED	6											
MPLE DATE	5/8											
SAMPLE TIME	1115											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
		40 ML VOA		5		HCL						
		1 LITER AMBER				NEAT						
		250 ML AMBER				NEAT						
		250 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		HNO <sub>3</sub>						
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
		125 ML PLASTIC		1		NEAT						
1120		Duplicate										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/8/19	TIME	1145								
DHC (FEET)	5132	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	21.61	1									
DTB (FEET)	26.2	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		SPH Layer - dk yellow									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		No Samples Collected									
MPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
Gauge Date		5/8/19	TIME	1147						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		COMMENTS: DRY								
START TIME										
END TIME										
AMT PURGED										
MPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/8/19	TIME	1151							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		Dey								
START TIME										
END TIME										
AMT PURGED										
SAMPLE DATE		COMMENTS:								
SAMPLE TIME										
Analysis Request			CONTAINER TYPE	NUMBER OF CONTAINERS		PRESERVATIVE				
			40 ML VOA	5		HCL				
			1 LITER AMBER			NEAT				
			250 ML AMBER	1		NEAT				
			250 ML PLASTIC	1		HNO <sub>3</sub>				
			125 ML PLASTIC	1		HNO <sub>3</sub>				
			125 ML PLASTIC	1		H <sub>2</sub> SO <sub>4</sub>				
			125 ML PLASTIC	1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/28/19	TIME	1050								
DHC (FEET)	7.72	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	7.88	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: SPH = 0.160									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		SPH layer									
SAMPLE DATE		No samples collected									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/28/19	TIME	1007							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	9.84	1	1128	6.62	22.23	2024	1.315	1.03	1.8	-85.9
DTB (FEET)	13.61	2	1130	6.54	22.04	2008	1.306	1.02	1.79	-69.2
DTB - DTW	3.77	3	1132	6.51	21.74	2014	1.309	1.03	1.6	-58.3
CAPACITY PER FOOT	0.74 - 4"	4	1134	6.5	21.34	2018	1.312	1.03	1.59	-52.5
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	2	PLC, WINDY								
PURGE DATE	5/28	WATER APPEARANCE / ODOR:								
START TIME	1012	Clear - pink								
END TIME	1018	COMMENTS:								
AMT PURGED	2									
SAMPLE DATE	5/28									
SAMPLE TIME	1135									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/28/19	TIME	1003							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg</del>	ORP (mv)
DTW (FEET)	1057	1	1202	6.99	18.85	3561	2.315	1.88	4.12	5
DTB (FEET)	30.42	2	1204	7.02	18.36	3573	2.322	1.89	4.17	11.2
DTB - DTW	19.85	3	1206	7.04	17.88	3570	2.32	1.89	4.4	14.9
CAPACITY PER FOOT	0.74 - 4"	4	1208	7.05	17.18	3592	2.335	1.9	4.47	19.5
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	8	p/c, windy								
PURGE DATE	5/28	WATER APPEARANCE / ODOR:								
START TIME	1036	Clear - pink @ end of purge.								
END TIME	1047	COMMENTS:								
AMT PURGED	5.5									
SAMPLE DATE	5/28									
SAMPLE TIME	1210									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE			
		40 ML VOA		5			HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER		1			NEAT			
		250 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			HNO <sub>3</sub>			
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC		1			NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

2XL

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS										
GAUGE DATE	5/28/19	TIME	1005								male	
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>ppm</del>	ORP (mv)		
DTW (FEET)	0.95	1	1148	6.34	22.37	2641	1.716	1.37	2.04	-46.5		
DTB (FEET)	23.20	2	1150	6.33	21.86	2641	1.717	1.37	2.09	-44.7		
DTB - DTW	13.25	3	1152	6.31	21.43	2639	1.716	1.37	2.09	-41.5		
CAPACITY PER FOOT	0.74 - 4"	4	1154	6.3	21.06	2639	1.715	1.37	2.15	-38.2		
	0.163 - 2"	WEATHER CONDITIONS: plc - windy										
3 WELL VOLUMES	6	WATER APPEARANCE / ODOR: clear, no odor										
PURGE DATE	5/28											
START TIME	1022											
END TIME	1030	COMMENTS:										
AMT PURGED	6											
SAMPLE DATE	5/28											
SAMPLE TIME	1155											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA		5				HCL				
		1 LITER AMBER						NEAT				
		250 ML AMBER		1				NEAT				
		250 ML PLASTIC		1				HNO <sub>3</sub>				
		125 ML PLASTIC		1				HNO <sub>3</sub>				
		125 ML PLASTIC		1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/28/19	TIME	1058								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	1.4	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Plc, windy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		Clear									
END TIME		COMMENTS:									
AMT PURGED		Collected grab sample.									
SAMPLE DATE											
SAMPLE TIME	1109										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
8021		1 LITER AMBER				NEAT					
8015		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
WQCC-T&D		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/28/19	TIME	1101							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	11.63	1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		plc, windy								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		clear, slight odor - red particles in water								
END TIME		COMMENTS:								
AMT PURGED		collected grab sample								
SAMPLE DATE										
SAMPLE TIME	1119									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
8015		250 ML AMBER		1		NEAT				
8021		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
WQCC T+D		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

2X-1L  
EDB

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/21/19	TIME	1307								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>(%)</del>	ORP (mv)	
DTW (FEET)	1.73	1	1403	7.9	12.03	1852	1.203	0.95	1.41	-5	
DTB (FEET)	94.55	2	1405	7.9	12	1849	1.202	.94	1.36	-4.2	
DTB - DTW	92.82	3	1407	7.9	11.94	1851	1.203	.95	1.39	-3.5	
CAPACITY PER FOOT	0.74 - 4"	4	1409	7.91	11.9	1852	1.204	.95	1.33	-3.3	
3 WELL VOLUMES	206	WEATHER CONDITIONS: pk, windy									
PURGE DATE		WATER APPEARANCE / ODOR: clear, no odor									
START TIME											
END TIME		COMMENTS:									
AMT PURGED	160										
SAMPLE DATE	5/21										
SAMPLE TIME	1410										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS				PRESERVATIVE			
		40 ML VOA		5				HCL			
		1 LITER AMBER		2X				NEAT			
		250 ML AMBER		1				NEAT			
		250 ML PLASTIC		1				HNO <sub>3</sub>			
		125 ML PLASTIC		1				HNO <sub>3</sub>			
		125 ML PLASTIC		1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC		1				NEAT			
		EDB									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Dup.  
EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/22/19	TIME	12:10		myle					
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	Full	1	1432	6.9	12.86	3486	2.266	1.84	0.78	372
DTB (FEET)	60.33	2	1434	6.86	12.96	3485	2.265	1.84	0.74	40.8
DTB - DTW		3	1436	6.82	12.98	3489	2.268	1.84	0.69	40.4
CAPACITY PER FOOT	0.74 - 4"	4	1438	6.8	13.15	3481	2.263	1.84	0.73	436
	0.163 - 2"	WEATHER CONDITIONS: 5/28 p/c - windy								
3 WELL VOLUMES	134									
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		5/22/19								
END TIME		COMMENTS:								
AMT PURGED		Did not sample - well is submerged under water - will get Esco to pump out so I								
SAMPLE DATE	5/28/19	can access well. - 5/24/19 - Pumped Esco.								
SAMPLE TIME	1440	2nd attempt - 5/28/19 @ 1345 - Full								
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
1450 Dup										
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/1/19	TIME	10 35								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	20.0	1	1135	7.38	13.27	1612	1.048	.82	1.58	17.2	
DTB (FEET)	99.15	2	1137	7.25	13.79	1616	1.05	.82	1.49	1.1	
DTB - DTW	79.15	3	1139	7.21	14.26	1619	1.052	.82	1.45	-106	
CAPACITY PER FOOT	0.74 - 4"	4	1140	7.2	14.75	1623	1.055	.82	1.71	-16.5	
	0.163 - 2"	WEATHER CONDITIONS: P/C, Windy									
3 WELL VOLUMES	176	WATER APPEARANCE / ODOR: clear, no odor									
PURGE DATE	5/1										
START TIME	1037										
END TIME		COMMENTS:									
AMT PURGED	180										
SAMPLE DATE	5/1										
SAMPLE TIME	11/45										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260, 8015, 8011		40 ML VOA		5 + 2		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
WQCE T		250 ML PLASTIC		1		HNO <sub>3</sub>					
D		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
		125 Amber		1							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5-1-19	TIME	0952							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/l)	ORP (mv)
DTW (FEET)	21.45	1	1009	7.43	13.01	2403	1.562	1.24	1.47	-131.5
DTB (FEET)	46.52	2	1011	7.17	12.78	2408	1.565	1.25	1.12	-126.5
DTB - DTW	25.07	3	1013	7.01	12.78	2402	1.562	1.24	1.1	-124.6
CAPACITY PER FOOT	0.74 - 4"	4	1015	7.9	12.66	2400	1.56	1.24	1.06	-121.8
	0.163 - 2"	WEATHER CONDITIONS: PC / breezy								
3 WELL VOLUMES	56	WATER APPEARANCE / ODOR: clear - no odor								
PURGE DATE	5/1									
START TIME	1000									
END TIME	1015	COMMENTS:								
AMT PURGED	57									
SAMPLE DATE	5/1									
SAMPLE TIME	1019									
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS		PRESERVATIVE					
8015, 8260, 8011		40 ML VOA	5 + 2		HCL					
		1 LITER AMBER			NEAT					
		250 ML AMBER	1		NEAT					
WQCE T		250 ML PLASTIC	1		HNO <sub>3</sub>					
D		125 ML PLASTIC	1		HNO <sub>3</sub>					
		125 ML PLASTIC	1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC	1		NEAT					
EDB		125 ml Amber	1							
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Duplicate / EDB

WELL ID		TEST PARAMETERS																	
GAUGE DATE	5/1/19	TIME	1257								myle								
DHC (FEET)	16.71	RUNS	1	TIME	1340	pH	7.03	Temperature Degrees C	13.69	Conductivity (mS)	2505	TDS (g/L)	1.629	Salinity (ppt)	1.3	Dissolved Oxygen <del>ppm</del>	1.8	ORP (mv)	-5.3
DTW (FEET)	51.08		2		1342		6.85		14.25		2516		1.635		1.31		1.41		-16.6
DTB - DTW	34.37		3		1344		6.73		14.81		2519		1.637		1.31		1.11		-18.3
CAPACITY PER FOOT	0.74 - 4"		4		1346		6.66		15.35		2522		1.639		1.31		0.91		-16.9
	0.163 - 2"	WEATHER CONDITIONS: plc, windy																	
3 WELL VOLUMES	76	WATER APPEARANCE / ODOR: clear, no odor																	
PURGE DATE	5/1																		
START TIME	1300																		
END TIME	1350	COMMENTS:																	
AMT PURGED	78																		
SAMPLE DATE	5/1																		
SAMPLE TIME	1350																		
Analysis Request		CONTAINER TYPE				NUMBER OF CONTAINERS				PRESERVATIVE									
		40 ML VOA				5				HCL									
		1 LITER AMBER								NEAT									
		250 ML AMBER				1				NEAT									
		250 ML PLASTIC				1				HNO <sub>3</sub>									
		125 ML PLASTIC				1				HNO <sub>3</sub>									
		125 ML PLASTIC				1				H <sub>2</sub> SO <sub>4</sub>									
		125 ML PLASTIC				1				NEAT									
		Duplicate 1357																	
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter																			
Completed by: /s/ Cheryl Johnson/Environmental Specialist																			
Signature:																			





MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB  
Dupl 0822

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	6/5/19	TIME	0758							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	21.14	1	0813	6.57	12.9	2541	1.651	1.32	.62	9.7
DTB (FEET)	49.90	2	0815	6.54	12.93	2536	1.648	1.32	.60	7.7
DTB - DTW	28.76	3	0817	6.51	12.99	2532	1.646	1.32	.67	7.2
CAPACITY PER FOOT	0.74 - 4"	4	0819	6.50	13.06	2528	1.643	1.31	.62	7.1
	0.163 - 2"	WEATHER CONDITIONS: p/c, <del>hr</del> slight breeze								
3 WELL VOLUMES	64	WATER APPEARANCE / ODOR: clear, no odor								
PURGE DATE	6/5									
START TIME	0800									
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	12/5/19									
SAMPLE TIME	0822									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
Duplicate		0822								
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

E03

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/1/19	TIME	1425							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	14.39	1	1441	7.55	13.63	1333	0.997	.78	2.04	63.1
DTB (FEET)	104.0	2	1443	7.41	14.04	1541	1.001	.78	1.54	53
DTB - DTW	49.61	3	1445	7.33	14.33	1546	1.005	.78	1.6	50.8
CAPACITY PER FOOT	0.74 - 4"	4	1447	7.3	14.57	1577	1.005	.78	1.59	48.5
	0.163 - 2"	WEATHER CONDITIONS: p/c, windy								
3 WELL VOLUMES	24	WATER APPEARANCE / ODOR: pink - clear - no odor								
PURGE DATE	5/1									
START TIME	1430									
END TIME		COMMENTS:								
AMT PURGED	25									
SAMPLE DATE										
SAMPLE TIME	1450									
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
		40 ML VOA	5				HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/1/19	TIME	1500							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen: <del>mg/L</del>	ORP (mv)
DTW (FEET)	13.74	1	1527	7.75	13.21	1310	.851	.66	1.16	-7.2
DTB (FEET)	77.74	2	1529	7.64	13.65	1314	.854	.66	1.07	-18
DTB - DTW	64	3	1531	7.58	14.16	1317	.856	.66	1.04	-22
CAPACITY PER FOOT	0.74 - 4"	4	1533	7.64	14.63	1319	.858	.66	1.1	-21.9
	0.163 - 2"	WEATHER CONDITIONS: Plc, windy								
3 WELL VOLUMES	31	WATER APPEARANCE / ODOR:								
PURGE DATE	5/1	pink - clear - no odor								
START TIME	1508									
END TIME		COMMENTS:								
AMT PURGED	32									
SAMPLE DATE	5/1									
SAMPLE TIME	1535									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	0815							
DHC (FEET)	<del>X</del>	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	<del>X</del>	1								
DTB (FEET)	33.9	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS:								
AMT PURGED		DRY - 33.94								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE			
		40 ML VOA	5				HCL			
		1 LITER AMBER					NEAT			
		250 ML AMBER	1				NEAT			
		250 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				HNO <sub>3</sub>			
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>			
		125 ML PLASTIC	1				NEAT			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

Duplicate / EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	0821							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	17.52	1	0839	6.92	11.84	2670	1.736	1.39	2.99	-51.6
DTB (FEET)	31.04	2	0841	6.83	11.85	2675	1.739	1.39	1.92	-52.3
DTB - DTW	13.52	3	0843	6.78	11.88	2680	1.742	1.4	1.75	-51.6
CAPACITY PER FOOT	0.74 - 4"	4	0845	6.72	11.91	2687	1.746	1.4	1.68	-50.6
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	7	Clear, slight breeze								
PURGE DATE	5/2/19	WATER APPEARANCE / ODOR:								
START TIME	0824	Clear, slight pink tint, no odor cloudy								
END TIME	0839	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	5/2									
SAMPLE TIME	0848									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
0852		Duplicate								
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

2X8270

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	0920							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	17.38	1	0936	6.55	13.26	2926	1.902	1.53	1.88	-83.2
DTB (FEET)	30.9	2	0938	6.49	13.39	2935	1.908	1.54	1.75	-82.3
DTB - DTW	13.52	3	0940	6.44	13.52	2943	1.913	1.54	1.69	-81.5
CAPACITY PER FOOT	0.74 - 4"	4	0942	6.41	13.67	2949	1.917	1.54	1.77	-80.8
3 WELL VOLUMES	7	WEATHER CONDITIONS: clear, slight breeze								
PURGE DATE	5/2	WATER APPEARANCE / ODOR: clear - slight tan - gray - cloudy								
START TIME	0922									
END TIME	0936	COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	5/2									
SAMPLE TIME	0944									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

EDB

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	10:00							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>(ppm)</del>	ORP (mv)
DTW (FEET)	12.5	1	1201	7.17	11.37	3775	2.453	2	5.87	74.4
DTB (FEET)	18.59	2	1203	7.09	11.62	3777	2.455	2.01	5.47	75.7
DTB - DTW	6.09	3	1205	7.01	11.88	3777	2.455	2.01	5.25	77.6
CAPACITY PER FOOT	0.74 - 4"	4	1207	6.93	12.03	3776	2.454	2	5.13	79.4
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze								
3 WELL VOLUMES	3	WATER APPEARANCE / ODOR: Clear w/ slight yellow tint								
PURGE DATE	5/2									
START TIME										
END TIME	1014	COMMENTS: will allow to recharge								
AMT PURGED	3									
SAMPLE DATE	5/2									
SAMPLE TIME	1210									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/15/19	TIME	1201								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)	
DTW (FEET)	2002	1	0927	6.4	13.13	2217	1.441	1.14	2.4	-79.2	
DTB (FEET)	28.1	2	0919	6.35	13.31	2217	1.441	1.14	2.26	-77.7	
DTB - DTW	808	3	0921	6.33	13.58	2217	1.441	1.14	2.18	70.6	
CAPACITY PER FOOT	0.74 - 4"	4	0923	6.33	14.03	2208	1.435	1.14	2.17	<del>74.9</del>	
3 WELL VOLUMES	4	WEATHER CONDITIONS: p/c, slight breeze. / 5/16/19 overcast, calm									
PURGE DATE		WATER APPEARANCE / ODOR: clear - pink-brown - sheer									
START TIME											
END TIME	1210	COMMENTS: will allow to rehq before collecting									
AMT PURGED	1.5	Samples									
SAMPLE DATE	5/16/19										
SAMPLE TIME	0925										
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

2x L

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	6/5/19	TIME	0847							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	24.09	1	0915	6.35	15.40	2354	1.53	1.22	1.47	-102.9
DTB (FEET)	47.3	2	0917	6.33	15.51	2354	1.53	1.22	1.42	-101.6
DTB - DTW	23.21	3	0919	6.31	15.60	2355	1.53	1.22	1.40	-100.7
CAPACITY PER FOOT	0.74 - 4"	4	0921	6.30	15.70	2357	1.532	1.22	1.37	-99.9
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	11	plc, calm								
PURGE DATE	6/5	WATER APPEARANCE / ODOR:								
START TIME	0855	Clear - pink, some sheen								
END TIME	0855	COMMENTS:								
AMT PURGED										
SAMPLE DATE	6/5									
SAMPLE TIME	0924									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER		2		NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	1040							
DHC (FEET)	—	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (mg/L)	ORP (mv)
DTW (FEET)	23.8	1	1058	7.06	13.9	14166	9.208	8.24	10.65	77
DTB (FEET)	38.3	2	1100	7	14.17	14217	9.241	8.27	10.07	77.9
DTB - DTW	14.5	3	1102	6.97	14.46	14235	9.253	8.29	9.66	78.5
CAPACITY PER FOOT	0.74 - 4"	4	1104	6.93	14.73	14271	9.276	8.31	9.42	79.6
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear - breezy								
PURGE DATE	5/2	WATER APPEARANCE / ODOR: Clear cloudy - pink - muddy								
START TIME	1042									
END TIME	1056	COMMENTS:								
AMT PURGED	6									
SAMPLE DATE	5/2									
SAMPLE TIME	1108									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/2/19	TIME	1128							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	16.55	1	1221	7.19	12.94	9055	5.886	5.09	5.68	82.7
DTB (FEET)	45.5	2	1223	7.16	13.01	9051	5.883	5.09	5.56	81.3
DTB - DTW	27.95	3	1225	7.13	13.08	9048	5.882	5.09	5.48	80.3
CAPACITY PER FOOT	0.74 - 4"	4	1227	7.11	13.18	9042	5.877	5.08	5.35	79.6
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES	14	WATER APPEARANCE / ODOR: Clear - pink - muddy								
PURGE DATE	5/2									
START TIME	1131									
END TIME		COMMENTS:								
AMT PURGED	11									
SAMPLE DATE	5/2									
SAMPLE TIME	1230									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/15/19	TIME	0935							
DHC (FEET)	17.62	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	21.13	1								
DTB (FEET)	39.0	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		3.51" = SPH layer								
START TIME										
END TIME		COMMENTS:								
AMT PURGED		No Samples collected.								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/13/19	TIME								
DHC (FEET)	23.4	RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	24.0	1								
DTB (FEET)	31.47	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: plc, calm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH = 0.4								
PURGE DATE										
START TIME										
END TIME		COMMENTS: No Samples collected.								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS									
GAUGE DATE	5/15/19	TIME	1105							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	20.35	1	Did not record readings							
DTB (FEET)	32.0	2								
DTB - DTW	11.65	3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: p/c, slight breeze								
3 WELL VOLUMES	26	WATER APPEARANCE / ODOR: clear - cloudy								
PURGE DATE	5/15									
START TIME	1107									
END TIME	1136	COMMENTS:								
AMT PURGED	26									
SAMPLE DATE	5/15/19									
SAMPLE TIME	1140									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

2X

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/15/19	TIME	10.03							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (ppm)	ORP (mv)
DTW (FEET)	6.83	1	1317	6.94	15	2493	1.62	1.29	4.82	-2.6
DTB (FEET)	27.63	2	1319	6.88	15.28	2490	1.619	1.29	4.23	-2.4
DTB - DTW	20.8	3	1321	6.84	15.54	2492	1.619	1.29	4.0	5.1
CAPACITY PER FOOT	0.74 - 4"	4	1323	6.82	15.78	2492	1.62	1.29	3.86	10.3
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	46	p/c, culm								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME	1005	clear - gray - black slt								
END TIME	1028	COMMENTS:								
AMT PURGED	29	Well allow to rechg before collecting sample								
SAMPLE DATE	5/15									
SAMPLE TIME	1325									
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER		2		NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID	TEST PARAMETERS										
GAUGE DATE	5/15/19	TIME	0950								
DHC (FEET)	23.47	RUNS		TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	32.21	1									
DTB (FEET)	40	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		SPH = 8.74									
START TIME		COMMENTS:									
END TIME		No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE						
	40 ML VOA		5		HCL						
	1 LITER AMBER				NEAT						
	250 ML AMBER		1		NEAT						
	250 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		HNO <sub>3</sub>						
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>						
	125 ML PLASTIC		1		NEAT						
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/21/19	TIME	1304								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	38.55	1									
DTB (FEET)	23	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		COMMENTS:									
START TIME		DRY									
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE	NUMBER OF CONTAINERS				PRESERVATIVE				
		40 ML VOA	5				HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER	1				NEAT				
		250 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				HNO <sub>3</sub>				
		125 ML PLASTIC	1				H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC	1				NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE	5/21/19	TIME	1301		male						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	46.01	1	1138	7.79	13.32	2176	1.415	1.12	1.28	-72.7	
DTB (FEET)	63.5	2	1140	7.74	13.47	2179	1.416	1.12	1.22	-78.6	
DTB - DTW	17.49	3	1142	7.7	13.62	2180	1.417	1.12	1.2	-82.5	
CAPACITY PER FOOT	0.74 - 4"	4	1144	7.67	13.8	2182	1.418	1.12	1.19	-84.9	
	0.163 - 2"	WEATHER CONDITIONS: Plc, windy									
3 WELL VOLUMES	9	WATER APPEARANCE / ODOR: Clear - pink									
PURGE DATE											
START TIME											
END TIME	1318	COMMENTS: purged 2 gals - pump lost suction.									
AMT PURGED	2	- Used bailer to collect									
SAMPLE DATE	5/22/19	Samples									
SAMPLE TIME	1146										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS									
GAUGE DATE	5/21/19	TIME	11:21								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)	23.3	1									
DTB (FEET)	23.0	2									
DTB - DTW	.3	3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: plc - windy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		Not enough wtr to bail.									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS			PRESERVATIVE				
		40 ML VOA		5			HCL				
		1 LITER AMBER					NEAT				
		250 ML AMBER		1			NEAT				
		250 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			HNO <sub>3</sub>				
		125 ML PLASTIC		1			H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1			NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/21/19	TIME	11:25	mg/L						
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)	9.2	1	1002	7.77	11.62	2814	1.829	1.47	1.36	6.1
DTB (FEET)	61.45	2	1004	7.79	11.67	2813	1.829	1.47	0.9	6.8
DTB - DTW	52.25	3	1006	7.79	11.77	2813	1.829	1.47	0.8	7.8
CAPACITY PER FOOT	0.74 - 4"	4	1008	7.8	11.88	2814	1.829	1.47	0.78	8.4
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	26	plc, windy								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME	1136	Clear								
END TIME	1154	COMMENTS:								
AMT PURGED	10	purged 10 gals - pump lost suction								
SAMPLE DATE	5/22/19	will allow for rechg before collecting								
SAMPLE TIME	1011	Samples.								
Analysis Request	CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
	40 ML VOA		5		HCL					
	1 LITER AMBER				NEAT					
	250 ML AMBER		1		NEAT					
	250 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		HNO <sub>3</sub>					
	125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
	125 ML PLASTIC		1		NEAT					
	EDB									
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/21/19	TIME	1130		mg/L					
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen <del>mg/L</del>	ORP (mv)
DTW (FEET)	1.6	1	1215	6.93	12.64	6558	4.263	3.61	1.72	-96.2
DTB (FEET)	76.35	2	1217	6.89	12.71	6555	4.26	3.6	1.61	-99.1
DTB - DTW	74.75	3	1219	6.88	12.61	6566	4.268	3.61	1.6	-98.7
CAPACITY PER FOOT	0.74 - 4"	4	1221	6.86	12.56	6593	4.286	3.63	1.61	-98.8
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	37	pk, windy								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		clear - pink - clear								
END TIME		COMMENTS:								
AMT PURGED	37									
SAMPLE DATE	5/21									
SAMPLE TIME	1224									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE		TIME								
5/14/19		1214								
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS: Allowed to run for 10-15 mins								
AMT PURGED		before collecting samples								
SAMPLE DATE	5/14									
SAMPLE TIME	1226									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

WELL ID		TEST PARAMETERS								
GAUGE DATE	5/14/19	TIME	1057							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: clear, p/c, calm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		COMMENTS:								
START TIME	1058	allowed to Run for 10 mins before collecting samples.								
END TIME										
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME	1110									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
VOC SVOC WACC cat/an		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
		Cyanide								
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date	5	TIME									
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc, breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: clear - cloudy - slight odor									
PURGE DATE		COMMENTS: collected grab sample from inlet into EP-2.									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE	5/29/18										
SAMPLE TIME	1125										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
		40 ML VOA		5		HCL					
		1 LITER AMBER				NEAT					
		250 ML AMBER		1		NEAT					
		250 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		HNO <sub>3</sub>					
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
		125 ML PLASTIC		1		NEAT					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

FIRST QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE	5/14/19	TIME	1048							
DHC (FEET)		RUNS	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE										
START TIME										
END TIME		COMMENTS: Collected grab sample from								
AMT PURGED		pond 2 - South evaporator								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
		40 ML VOA		5		HCL				
		1 LITER AMBER				NEAT				
		250 ML AMBER		1		NEAT				
		250 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		HNO <sub>3</sub>				
		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>				
		125 ML PLASTIC		1		NEAT				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/30/19		TIME: 1130		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	4.95	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	4.58	1									
DTB (FEET)	17.42	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		SPH = 0.37									
END TIME		COMMENTS:									
AMT PURGED		No Samples collected									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											



EDB collected

Well ID		TEST PARAMETERS									
		Volume	TIME	pH	Temperature (Deg. C)	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
GAUGE DATE	MKTF-2	Initial	10:10	7.15	13.42	6.625	5.542	4.47	2.80	-101.2	
GAUGE TIME		1	10:22	7.07	13.38	6.589	5.551	4.43	2.84	-106.0	
DHC (FEET)		2	10:25	7.08	13.35	6.587	5.548	4.46	3.01	-104.1	
DTW (FEET)		3									
DTB (FEET)		4									
DTB-DTW		5									
CAPACITY PER FOOT		6									

27.417 gal.

PURGING DATA

3 WELL VOLUMES		Weather Conditions:	80-90°F, sunny
PURGE DATE	8/23/19	Water Appearance/Odor:	slight - moderate sewer odor, clear turn red/brown from susp. sediments
END OF PURGE TIME	10:25	Comments:	
PURGE AMOUNT	~25 gal.		
DTW (FEET)	-		

SAMPLING DATA

SAMPLE DATE	8/23/19	Weather Conditions:	
DTW (FEET)	-	Water Appearance/Odor:	See Above
SAMPLE TIME	10:30	Comments:	

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
8260B				
8270				
8280				
8290				
8300				
8310				
8320				
8330				
8340				
8350				
8360				
8370				
8380				
8390				
8400				
8410				
8420				
8430				
8440				
8450				
8460				
8470				
8480				
8490				
8500				
8510				
8520				
8530				
8540				
8550				
8560				
8570				
8580				
8590				
8600				
8610				
8620				
8630				
8640				
8650				
8660				
8670				
8680				
8690				
8700				
8710				
8720				
8730				
8740				
8750				
8760				
8770				
8780				
8790				
8800				
8810				
8820				
8830				
8840				
8850				
8860				
8870				
8880				
8890				
8900				
8910				
8920				
8930				
8940				
8950				
8960				
8970				
8980				
8990				
9000				

INSTRUMENTS USED:

JP + water quality meter (YST), 4-inch bailer

Completed By: Val Wilson

Signature: Val Wilson





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1310		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	4.04	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.29	1									
DTB (FEET)	/	2									
DTB - DTW	/	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	/										
PURGE DATE	/	WATER APPEARANCE / ODOR:									
START TIME	/										
END TIME	/	COMMENTS: (product) HC in well									
AMT PURGED	/	- Did not sample -									
SAMPLE DATE	/										
SAMPLE TIME	/										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Vani											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/2/19		TIME: 0936		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.27	1	1020	7.59	14.23	2.188	1.790	1.44	5.86	-103.8	
DTB (FEET)	22.66	2	1024	7.28	13.97	2.121	1.745	1.40	5.80	-97.5	
DTB - DTW	14.39	3	1027	7.12	14.33	2.139	1.746	1.40	5.69	-82.2	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, HC odor yellowish tint, with sheen									
3 WELL VOLUMES	32 gal										
PURGE DATE	8/2/19	WATER APPEARANCE / ODOR: 80-90°F Sunny									
START TIME	0936										
END TIME	1027	COMMENTS: Dup collected									
AMT PURGED	31.75										
SAMPLE DATE	8/2/19										
SAMPLE TIME	1030										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/30/19		TIME: 1140		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	13.4	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.4	1									
DTB (FEET)	17.75	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		SPH = 0.2									
END TIME		COMMENTS: No samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/30/19 16-15.82		TIME: 1200		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	15.82	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	16.6	1									
DTB (FEET)	23.77	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH = 0.78									
PURGE DATE											
START TIME											
END TIME		COMMENTS:									
AMT PURGED		No samples collected									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKTG-7		GAUGE DATE: 8/30/19		TIME: 1205		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	13.29	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.18	1									
DTB (FEET)	17.62	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: SPH = 1.11									
START TIME											
END TIME		COMMENTS: No samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/30/19		TIME: 1210		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	12.95	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	12.89	1								
DTB (FEET)	21.98	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		SPH = 0.4								
END TIME		COMMENTS:								
AMT PURGED		No sample collected								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5		HCL			
8270		1 LITER AMBER			1		None			
8015D		250 ML AMBER			1		None			
METALS - TOTAL		250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1		HNO3			
CATIONS		125 ML PLASTIC			1		H2SO4			
ANIONS		125 ML PLASTIC			1		None			
8011 - EDB		40 ML VOA			1		Na2S2O3			
CYANIDE		500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/28/19		TIME: 0821		DUPLICATE: Y / (N)		8011 EDB: Y / (N)		8270 ADD'L: Y / (N)		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	1328	1	0905	6.89	14.76	1.973	1.594	1.27	1.80	-118.4
DTB (FEET)	2270	2	0907	6.89	14.79	1.975	1.595	1.27	1.78	-118.1
DTB - DTW	9.42	3	0909	6.88	14.82	1.976	1.595	1.27	1.77	-117.9
CAPACITY PER FOOT	0.74 - 4"	4	0911	6.87	14.84	1.978	1.595	1.27	1.76	-117.7
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	20	Clear, calm								
PURGE DATE	8/28	WATER APPEARANCE / ODOR:								
START TIME		Clear								
END TIME		COMMENTS:								
AMT PURGED	18									
SAMPLE DATE	8/28									
SAMPLE TIME	0915									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1250		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.65	1	8/21/19 1135	7.42	19.22	4.094	2.985	2.48	1.33	-98.1	
DTB (FEET)	16.36	2	1137	7.26	18.70	3.982	2.925	2.41	1.55	-97.9	
DTB - DTW	8.71	3	1138	7.14	18.52	3.935	2.905	2.39	1.36	-97.6	
CAPACITY PER FOOT	0.74 - 4"	4	1140	7.04	18.34	3.913	2.905	2.40	1.36	-97.3	
0.163 - 2"		WEATHER CONDITIONS: Cloudy 70-80°F									
3 WELL VOLUMES		19.33									
PURGE DATE		8/21/19									
START TIME		1255									
END TIME		1315									
AMT PURGED		~13 gal.									
SAMPLE DATE		8/22/19									
SAMPLE TIME		1144									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Van											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1325		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	6.22	1	1349	7.48	15.63	3.817	3.020	2.50	1.45	-125.6	
DTB (FEET)	18.52	2	1354	7.29	15.63	3.825	3.031	2.51	1.47	-115.5	
DTB - DTW	12.30	3	1357	7.26	15.98	3.405	2.674	2.20	1.46	-121.5	
CAPACITY PER FOOT	0.74 - 4'	4	1400	7.19	16.17	3.407	2.664	2.19	1.26	-117.0	
	1403		7.14	16.14	3.414	2.672	2.19	1.36	-115.7		
3 WELL VOLUMES		WEATHER CONDITIONS: 80-90°F, Sunny									
PURGE DATE		WATER APPEARANCE / ODOR: Discolored water - sedimentation present in bailers -									
START TIME											
END TIME		COMMENTS: 8270 Dup									
AMT PURGED		8 ~ 25 gallons									
SAMPLE DATE		8/21/19									
SAMPLE TIME		1405									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/20/19		TIME: 1030		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	17.92	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	18.01	1									
DTB (FEET)	/	2									
DTB - DTW	/	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: <i>80° Sunny 80-90°F</i>									
3 WELL VOLUMES	/										
PURGE DATE	/	WATER APPEARANCE / ODOR: <i>- N/A</i>									
START TIME	/										
END TIME	/	COMMENTS: <i>HC present in well</i>									
AMT PURGED	/	<i>Did not sample</i>									
SAMPLE DATE	/										
SAMPLE TIME	/										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: <i>Val Wilson / Valen Lin</i>											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1040		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	12.45	1									
DTB (FEET)	21.72	2									
DTB - DTW	9.27	3									
CAPACITY PER FOOT	0.74 - 4"	4									
0.163 - 2"		WEATHER CONDITIONS: partly cloudy 80-85									
3 WELL VOLUMES	20.57										
PURGE DATE		WATER APPEARANCE / ODOR: cloudy strong HCl odor, green									
START TIME											
END TIME		COMMENTS: HC on boiler									
AMT PURGED		dk brown HC on length of boiler									
SAMPLE DATE		No samples									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Worn / Val Worn											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1035		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	5.64	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	5.92	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		No sample product in well									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson/Val											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0921		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	12.02	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	12.03	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: Product Did Not Sample									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0831		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.22	1	843	7.35	23.12	6.730	4.526	3.82	1.89	-133.4	
DTB (FEET)	14.09	2	845	7.00	23.06	6.798	4.585	3.88	1.72	-123.8	
DTB - DTW	4.87	3	847	6.92	22.96	6.737	4.554	3.85	1.40	-114.6	
CAPACITY PER FOOT	0.74 - 4"	4	850	6.79	22.88	6.695	4.535	3.83	1.62	-108.4	
3 WELL VOLUMES		WEATHER CONDITIONS: Sunny 80-90°F									
PURGE DATE: 8/21/19		WATER APPEARANCE / ODOR: Clear, HC odor present									
START TIME: 835											
END TIME: 850		COMMENTS: Bailed Dry (2.25 gal) while filling Bottles.									
AMT PURGED: 2.25 gal											
SAMPLE DATE: 8/21/19											
SAMPLE TIME: 8/21/19 1117		vw 8/22/19									
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Van											

Only was able to collect  
Well not sufficiently recharge to sample entire suite  
8260  
8015D (VOAs + 250ml Amber)  
8270  
Cations  
Anions  
Discussed w/ Cheryl Johnson on 8/23/19





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/30/19		TIME: 1022		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	11.61	1								
DTB (FEET)	14.10	2								
DTB - DTW	2.49	3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	1	clear - calm								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS:								
AMT PURGED	8/30/19	- Well was purged earlier & partial samples were taken.								
SAMPLE DATE	1025	- Resample for full suite, metals & Anions								
SAMPLE TIME										
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA		5		HCL			
8270			1 LITER AMBER		1		None			
8015D			250 ML AMBER		1		None			
METALS - TOTAL			250 ML PLASTIC		1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3			
CATIONS			125 ML PLASTIC		1		H2SO4			
ANIONS			125 ML PLASTIC		1		None			
8011 - EDB			40 ML VOA		1		Na2S2O3			
CYANIDE			500 ML		1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/19/19		TIME: 1429		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: <input checked="" type="radio"/> Y / N		8270 ADD'L: Y / <input checked="" type="radio"/> N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	10.79	1	8/20/19 1043	7.21	15.19	1.827	1.460	1.16	4.38	27.1	
DTB (FEET)	24.68	2	1045	7.07	15.84	1.815	1.431	1.14	4.21	27.1	
DTB - DTW	13.89	3	1047	7.03	15.12	1.782	1.445	1.14	3.65	-10.6	
CAPACITY PER FOOT	0.74 - 4"	4	1050	6.99	15.03	1.789	1.442	1.14	3.99	-32.8	
3 WELL VOLUMES	629	WEATHER CONDITIONS: Sunny clear Hot ~90°F									
PURGE DATE	8/19/19	WATER APPEARANCE / ODOR: Clear									
START TIME	1433	Slight HCl odor									
END TIME	1449	COMMENTS: Purged dry after 3.0 gallons									
AMT PURGED	~3.9 gal	Returned 8/20/19 @ 1045									
SAMPLE DATE	8/20/19	and performed water quality tests									
SAMPLE TIME	1052	+ sampled									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Dale Wilson / Van											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKT-18		Gauge Date: 08/18/19		Time: 1100		Duplicate: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	7.71	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.72	1									
DTB (FEET)	/	2									
DTB - DTW	/	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	/	WATER APPEARANCE / ODOR:									
PURGE DATE		COMMENTS:									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/19/19		TIME: 1505		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	11.06	1	1520	6.89	15.58	2109	1.683	1.32	2.29	-165.6	
DTB (FEET)	19.32 <sup>SB</sup>	2	1523	6.93	14.22	2.001	1.639	1.32	2.10	-144.2	
DTB - DTW	8.26	3	1525	6.80	14.20	2.000	1.646	1.31	1.14	-131.2	
CAPACITY PER FOOT	0.74 - 4"	4	1525 1530	6.85 6.89	14.10 14.10	1.999 2.001	1.640 1.643	1.31	1.04 1.15	121.9 -116.9	
3 WELL VOLUMES		WEATHER CONDITIONS: 90-100 F, Sunny									
PURGE DATE	8/19/19	WATER APPEARANCE / ODOR: Muddy H/C odor									
START TIME	1505	soft bottom (SB)									
END TIME	1529	COMMENTS: Slight sheen, duplicate collected									
AMT PURGED	4.00										
SAMPLE DATE	8/19/19										
SAMPLE TIME	1535										
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D			40 ML VOA		5		HCL				
8270			1 LITER AMBER		1		None				
8015D			250 ML AMBER		1		None				
METALS - TOTAL			250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3				
CATIONS			125 ML PLASTIC		1		H2SO4				
ANIONS			125 ML PLASTIC		1		None				
8011 - EDB			40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Val Wilson											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MUTP-20		GAUGE DATE: 8/20/19/8/21/19		TIME: 1607		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.03/7.94	1	1448	6.59	24.85	12.97	8.440	7.45	0.80	-89.0	
DTB (FEET)	9.62	2	1450	6.45	24.70	12.91	8.433	7.45	0.76	-99.0	
DTB - DTW	1.59	3	1452	6.35	24.67	12.89	8.430	7.45	0.78	-99.8	
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	3.53	WEATHER CONDITIONS: Act Breezy pty cloudy									
PURGE DATE	8/20/19	WATER APPEARANCE / ODOR: Dark, blackish tint / 8/21/19 yellowish tint + HCO <sub>3</sub> <sup>-</sup>									
START TIME	1608	COMMENTS: Sewer smell									
END TIME	1624	Purged Dry									
AMT PURGED	1.53 gal	Well contains very little water.									
SAMPLE DATE	8/21/19										
SAMPLE TIME	1455										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO <sub>3</sub>					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO <sub>3</sub>					
CATIONS		125 ML PLASTIC		1		H <sub>2</sub> SO <sub>4</sub>					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Vam											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
NUCTF-21		Gauge Date: 8/20/19		TIME: 8/20/19 1537	DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.22 / 7.72	1525	7.20	21.68	2.163	1.502	1.21	0.90	-118.3		
DTB (FEET)	8.55	2	1528	7.02	22.14	2.154	1.482	1.17	0.87	-111.0	
DTB - DTW	1.33	3	1530	6.92	22.31	2.160	1.479	1.17	0.90	-107.9	
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	2.98	WEATHER CONDITIONS: Hot Breezy pty cldy									
PURGE DATE	8/20/19	WATER APPEARANCE / ODOR: muddy / dirty sweet sewer odor (?)									
START TIME	1510										
END TIME	1554	COMMENTS: Purged Dry / Purged dry on 8/21/19 (insufficient vol. for sample)									
AMT PURGED	~1.5										
SAMPLE DATE	8/20/19	Sample on 8/22/19									
SAMPLE TIME	1637										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/20/19		TIME: 832		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.95	1	0855	7.37	12.65	1.893	1.620	1.29	2.33	-123.5	
DTB (FEET)	35.62	2	0858	7.09	12.86	1.890	1.605	1.28	2.33	-120.0	
DTB - DTW	10.67	3	0900	7.04	12.40	1.872	1.604	1.28	2.50	-116.1	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: 80-85°F, sunny									
3 WELL VOLUMES	5.22										
PURGE DATE	8/20/19	WATER APPEARANCE / ODOR: clear, no odor									
START TIME	835										
END TIME	900	COMMENTS: DUP-2 8270									
AMT PURGED	5 gal										
SAMPLE DATE	8/20/19										
SAMPLE TIME	0900										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/20/19		TIME: 0959		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	13.47	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.50	1									
DTB (FEET)	=	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Sunny w/ about moist water 85-90									
PURGE DATE		WATER APPEARANCE / ODOR: NA									
START TIME											
END TIME		COMMENTS: HC in well									
AMT PURGED		Did not sample									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson (Valen W)											





## MARATHON - GALLUP REFINERY

EDB

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/23/19		TIME: 1132		DUPLICATE: Y (N)		8011 EDB: Y (N)		8270 ADD'L: Y (N)		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	22.05	1	1202	7.30	13.8	4011			1.88	-4.4
DTB (FEET)	30.47	2	1204	7.29	14.0	3997			1.84	-5.8
DTB - DTW	8.42	3	1206	7.29	14.0	3997			1.83	-7.0
CAPACITY PER FOOT	0.74 - 4"	4	1208	7.28	14.0	3998			1.80	-8.0
3 WELL VOLUMES	4	WEATHER CONDITIONS: plc - breezy								
PURGE DATE		WATER APPEARANCE / ODOR: clear - pink - muddy								
START TIME	1135									
END TIME	1148	COMMENTS:								
AMT PURGED	3									
SAMPLE DATE	8/23									
SAMPLE TIME	1210									
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE		
8260B / 8015D			40 ML VOA			5		HCL		
8270			1 LITER AMBER			1		None		
8015D			250 ML AMBER			1		None		
METALS - TOTAL			250 ML PLASTIC			1		HNO3		
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3		
CATIONS			125 ML PLASTIC			1		H2SO4		
ANIONS			125 ML PLASTIC			1		None		
8011 - EDB			40 ML VOA			1		Na2S203		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										



Well ID		TEST PARAMETERS									
		Volume	TIME	pH	Temperature (Deg. C)	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
MKTF-25		Initial									
GAUGE DATE	8/23/19	1									
GAUGE TIME	11:15	2									
DHC (FEET)	NP	3									
DTW (FEET)	13.12	4									
DTB (FEET)	20.20	5									
DTB-DTW	7.08	6									
CAPACITY PER FOOT		0.74 - 4"									
		0.163 - 2"									
PURGING DATA											
3 WELL VOLUMES	3.46	Weather Conditions: 80-90°F, sunny									
PURGE DATE	8/23/19	Water Appearance/Odor: Brown heavy sedimentation									
END OF PURGE TIME	11:30	Comments: purged only on 8/23/19 (~2 gallons)									
PURGE AMOUNT	~2 gallons										
DTW (FEET)	13										
SAMPLING DATA											
SAMPLE DATE	8/23/19	Weather Conditions:									
DTW (FEET)	-	Water Appearance/Odor:									
SAMPLE TIME		Comments:									
SAMPLE LOG											
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS PRESERVATIVE								
INSTRUMENTS USED:											
IP, 2-inch Barbers											

Completed By: \_\_\_\_\_ Signature: \_\_\_\_\_





## MARATHON - GALLUP REFINERY

EDB

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/27/19		TIME: 1155		DUPLICATE: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		8011 EDB: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		8270 ADD'L: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.23	1	1201	6.85	14.52	4459	3.619	3.03	3.51	-213	
DTB (FEET)	19.43	2	1203	6.82	14.56	4482	3.631	3.01	3.21	-17.8	
DTB - DTW		3	1205	6.79	14.81	4499	3.631	3.04	2.94	-15.8	
CAPACITY PER FOOT	0.74 - 4"	4	1207	6.77	14.93	4521	3.631	3.05	2.86	-14.7	
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: p/c, breezy									
PURGE DATE		WATER APPEARANCE / ODOR: clear burst bail - pink									
START TIME											
END TIME		COMMENTS: Well was purged dry on 8/23/19 - slow to recharge - Sample only - No baseline									
AMT PURGED											
SAMPLE DATE	8/27										
SAMPLE TIME	1210										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											



Completed By: Vae Wilson

Signature: Vae Wilson

Completed By:

Signature: \_\_\_\_\_

Signature





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/21/19		TIME: 1642		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	5.66	1	1702	7.12	17.63	12.05	9.121	8.15	1.42	78.4	
DTB (FEET)	14.74	2	1705	6.94	17.30	12.11	9.231	8.26	1.13	60.5	
DTB - DTW	9.08'	3	1707	6.88	17.07	12.11	9.299	8.33	1.18	56.5	
CAPACITY PER FOOT	0.74 - 4"	4	1709	6.85	16.66	12.25	9.457	8.49	1.13	52.3	
3 WELL VOLUMES		WEATHER CONDITIONS: Sunny 80-90°F									
PURGE DATE	8/21/19	WATER APPEARANCE / ODOR: No noticeable odor yellowish tint									
START TIME	1650										
END TIME	1709	COMMENTS:									
AMT PURGED	~4										
SAMPLE DATE	8/21/19										
SAMPLE TIME	1710										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1555		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	3.82	1	1610	7.80	21.68	3.146	2.182	1.76	4.10	3.00	252
DTB (FEET)	16.16	2	1613	7.58	21.41	3.147	2.196	1.78	3.89	16.2	
DTB - DTW	12.34'	3	1616	7.50	21.64	3.114	2.156	1.74	3.76	11.4	
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES		WEATHER CONDITIONS: 80-90° F, sunny									
PURGE DATE		WATER APPEARANCE / ODOR: Clear, no noticeable odor									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson /											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/23/19		TIME: 0811		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	5.83	1	835	7.64	15.04	3.514	2.775	2.28	1.28	82.6	
DTB (FEET)	22.81	2	838	7.44	16.64	3.654	2.820	2.32	1.29	68.8	
DTB - DTW	16.98	3	840	7.37	16.61	3.644	2.777	2.30	1.30	61.2	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: 80°F (sunny)									
3 WELL VOLUMES	8.303										
PURGE DATE	8/23/19	WATER APPEARANCE / ODOR: Clear, no odor									
START TIME	815										
END TIME	840	COMMENTS: 50 Ft bottom									
AMT PURGED	<del>842</del> 8 gallons	Dup. collected									
SAMPLE DATE	8/23/19										
SAMPLE TIME	842										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/23/19		TIME: 0913		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.88	1	926	7.58	15.85	3.973	3.129	2.59	4.57	16.5	-20.2
DTB (FEET)	23.21	2	928	7.49	16.00	3.760	2.943	2.48	4.57	-23.3	
DTB - DTW	8.33'	3	930	7.39	15.92	3.743	2.935	2.42	4.61	-6.0	
CAPACITY PER FOOT	0.74 - 4"	4	933	7.35	16.11	3.739	2.926	2.42	4.48	2.6	
	0.163 - 2"	WEATHER CONDITIONS: 80° F, sunny									
3 WELL VOLUMES	4.07										
PURGE DATE	8/23/19	WATER APPEARANCE / ODOR: Clear, NO odor									
START TIME	920	Dup 8270									
END TIME	933	COMMENTS:									
AMT PURGED	~4.5 gal.										
SAMPLE DATE	8/23/19										
SAMPLE TIME	935										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson/Van											





## MARATHON - GALLUP REFINERY

EDB

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/23/19		TIME: 1059		DUPLICATE: Y (N)		8011 EDB: Y (N)		8270 ADD'L: Y (N)			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.3	1	1102	7.43	19.4	3703			2.06	115.3	
DTB (FEET)	22.81	2	1104	7.42	19.2	3705			2.02	115.1	
DTB - DTW	14.51	3	1106	7.41	19.2	3713			1.99	114.8	
CAPACITY PER FOOT	0.74 - 4"	4	1108	7.40	19.1	3724			1.98	114.6	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	7	p/c - breezy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		Clear - pink									
END TIME	1108	COMMENTS:									
AMT PURGED	7										
SAMPLE DATE	8/23										
SAMPLE TIME	1112										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1316		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.03	1	1331	8.07	14.43	2.738	2.250	1.83	1.90	102.9	
DTB (FEET)	27.78	2	1334	7.93	13.91	2.754	2.274	1.85	1.95	90.4	
DTB - DTW	13.75	3	1336	7.88	13.98	2.746	2.257	1.84	1.96	78.6	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: pty cloudy 86-88° slight breeze									
3 WELL VOLUMES	6.72										
PURGE DATE	8/20/19	WATER APPEARANCE / ODOR: clear No Odor									
START TIME	1318										
END TIME	1339	COMMENTS:									
AMT PURGED	6.2										
SAMPLE DATE	8/20/19										
SAMPLE TIME	1341										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKTF-33		Gauge Date: 8/20/19		TIME: 1115		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	22.35	1	1123	7.46	13.38	1.68	1.346	1.06	1.90	-49.6	
DTB (FEET)	33.35	2	1125	7.35	12.92	1.594	1.349	1.06	1.63	-20.4	
DTB - DTW	11	3	1127	7.29	12.80	1.582	1.345	1.06	1.65	-60.9	
CAPACITY PER FOOT	0.74 - 4"	4	1129	7.26	12.87	1.588	1.347	1.06	1.66	-55.9	
0.163 - 2"		WEATHER CONDITIONS: 80-90°F Sunny									
3 WELL VOLUMES 5.379		WATER APPEARANCE / ODOR: No noticeable odor									
PURGE DATE 8/20/19											
START TIME 1118											
END TIME 1129		COMMENTS:									
AMT PURGED ~4 gal											
SAMPLE DATE 8/20/19											
SAMPLE TIME 1131											
Analysis Request		CONTAINER TYPE				NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D		40 ML VOA				5		HCL			
8270		1 LITER AMBER				1		None			
8015D		250 ML AMBER				1		None			
METALS - TOTAL		250 ML PLASTIC				1		HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC				1		HNO3			
CATIONS		125 ML PLASTIC				1		H2SO4			
ANIONS		125 ML PLASTIC				1		None			
8011 - EDB		40 ML VOA				1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											



Well ID		TEST PARAMETERS									
		Volume	TIME	pH	Temperature (Deg. C)	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
MKTF-34		Initial	10:57	5.82	14.70	2.957	2.391	1.95	7.04	110	
GAUGE DATE	10/10	1	11:00	5.95	14.25	2.930	2.390	1.95	6.10	73	
GAUGE TIME	8/19/19	2	11:05	5.92	14.23	2.927	2.395	1.95	4.14	44	
DHC (FEET)		3	11:10	6.26	14.25	2.903	2.373	1.93	5.70	56.1	
DTW (FEET)	17.70	4									
DTB (FEET)	27.40	5									
DTB-DTW	10.00	6									
CAPACITY PER FOOT	0.74 - 4"										
	0.163 - 2"										
PURGING DATA											
3 WELL VOLUMES	4.89	Weather Conditions: sunny, 80-90°F, slight breeze									
PURGE DATE	8/19/19	Water Appearance/Odor:									
END OF PURGE TIME	11:11	Comments: ~5 gal. purged soft bottom									
PURGE AMOUNT	~5										
DTW (FEET)	-										
SAMPLING DATA											
SAMPLE DATE	8/19/19	Weather Conditions: same as above									
DTW (FEET)	-	Water Appearance/Odor: same as above									
SAMPLE TIME	11:11	Comments:									
SAMPLE LOG											
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE							
Anions		EDB collected									
Cations											
VO (529898)											
5270 (PAPs)											
Metals (Diss.) + Tot											
TPH											
INSTRUMENTS USED:											
IP, 451, 2-inch bailers											

Completed By: Val Wilson

Signature: 





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKF35		GAUGE DATE: 8/19/19		TIME: 1322		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.09	1	1334	6.51	19.68	1.909	1.422	1.12	1.45	116.4	
DTB (FEET)	16.46 <sup>SB</sup>	2	1338	6.50	19.64	1.946	1.412	1.12	1.19	-110.9	
DTB - DTW	8.37'	3	1340	6.46	19.00	1.924	1.409	1.11	1.15	-109.2	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	4.09	Sunny upper 80's slight breeze									
PURGE DATE	8/19/19	WATER APPEARANCE / ODOR:									
START TIME	1327	Turbid / Muddy HC odor Soft Bottom (SB)									
END TIME	1340	COMMENTS:									
AMT PURGED	4.09										
SAMPLE DATE	8/19/19										
SAMPLE TIME	1348										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B/8015D (x)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB (x)		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Val											



**PURGE** **CORD**

Completed By: Val Wilson

\_\_\_\_\_



Well ID		TEST PARAMETERS									
GAUGE DATE	GAUGE TIME	Volume	TIME	pH	Temperature (Deg. C)	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
MKTF-37	8/23/19	Initial									
	1445	1									
DHC (FEET)	8.85	2									
DTW (FEET)	3.87	3									
DTB (FEET)		4									
DTB-DTW		5									
CAPACITY PER FOOT	0.74 - 4"	6									
	0.163 - 2"										
PURGING DATA											
3 WELL VOLUMES	Weather Conditions:										
PURGE DATE	Water Appearance/Odor:										
END OF PURGE TIME	Comments:										
PURGE AMOUNT											
DTW (FEET)											
SAMPLING DATA											
SAMPLE DATE	Weather Conditions:										
DTW (FEET)	Water Appearance/Odor:										
SAMPLE TIME	Comments:										
SAMPLE LOG											
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS		PRESERVATIVE						
INSTRUMENTS USED:											

Product in well, no sample

Completed By: Val Wilson

Signature: Val Wilson





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1453		DUPLICATE: <del>Y</del> / <del>N</del>				8011 EDB: Y / <del>N</del>		8270 ADD'L: Y / <del>N</del>	
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.77	1	1505	7.78	19.18	2.937	2.148	1.74	3.68	136.3	
DTB (FEET)	20.27	2	1507	7.52	17.95	2.898	2.183	1.72	1.99	125.3	
DTB - DTW	11.5	3	1509	7.43	18.84	2.837	2.084	1.69	2.05	107.6	
CAPACITY PER FOOT	0.74 - 4"	4	1511	7.36	19.34	2.807	2.064	1.67	1.56	93.5	
0.163 - 2"		WEATHER CONDITIONS: HOT, slight breeze, ptly cldy									
3 WELL VOLUMES	5.62	WATER APPEARANCE / ODOR: clear, No odor									
PURGE DATE	8/20/19	COMMENTS:									
START TIME	1455										
END TIME	1510										
AMT PURGED	2.610										
SAMPLE DATE	8/20/19										
SAMPLE TIME	1512										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / Val Wilson											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1636		DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		8011 EDB: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		8270 ADD'L: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>			
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.04	1	1642	6.67	19.03	28.50	21.13	20.34	1.65	-108.2	
DTB (FEET)	15.20	2	1645	6.51	18.67	28.52	21.08	20.30	1.10	-111.4	
DTB - DTW	6.16	3	1647	6.48	18.90	28.70	21.18	20.42	1.03	-111.8	
CAPACITY PER FOOT	0.74 - 4"	4	1649	6.43	19.02	28.76	21.09	20.30	0.75	-102.5	
0.163 - 2"		WEATHER CONDITIONS: Hot breezy, pty cldy									
3 WELL VOLUMES	3.00	WATER APPEARANCE / ODOR: L. thd dirty, clear slight black									
PURGE DATE	8/20/19	COMMENTS: DUP - collected									
START TIME	1439										
END TIME	1450										
AMT PURGED	3.25										
SAMPLE DATE	8/20/19										
SAMPLE TIME	1651										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: <i>Carl Wilson</i>											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/22/19		TIME: 1541		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	12.15	1	1558	7.18	14.11	11.98	9.792	8.82	3.48	85.8	
DTB (FEET)	23.67	2	1600	7.10	13.74	12.02	9.916	8.93	2.68	75.9	
DTB - DTW	11.52	3	16.01	7.05	13.71	11.96	9.835	8.84	2.83	69.7	
CAPACITY PER FOOT	0.74 - 4"	4	1603	7.00	13.59	11.92	9.880	8.89	2.82		
3 WELL VOLUMES	5.63	WEATHER CONDITIONS: Windy, pty cloudy, warm 80-85									
PURGE DATE	8/22/19	WATER APPEARANCE / ODOR: clear yellow color, no odor									
START TIME	1547										
END TIME	1557	COMMENTS:									
AMT PURGED	5.6										
SAMPLE DATE	8/22/19										
SAMPLE TIME	1604										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/22/19		TIME: 1439		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N		
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	19.55	1	1505	8.14	13.15	3.292	2.699	2.22	2.24	72.3
DTB (FEET)	40.31	2	1507	8.18	13.48	3.203	2.672	2.19	1.35	52.1
DTB - DTW	20.76	3	1509	8.19	13.24	3.203	2.680	2.20	1.20	42.0
CAPACITY PER FOOT	0.74 - 4"	4	1511	8.17	13.18	3.184	2.661	2.18	1.63	31.1
0.163 - 2"		WEATHER CONDITIONS:								
3 WELL VOLUMES		10.15 P.M. cloudy, Hot breezy								
PURGE DATE		8/22/19								
START TIME		1445								
END TIME		1503								
AMT PURGED		~ 8.5 gal.								
SAMPLE DATE		8/22/19								
SAMPLE TIME		1512								
WATER APPEARANCE / ODOR:		clear no odor sediment on later & bails								
COMMENTS:										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature: <i>Cheryl Johnson</i>										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/22/19		TIME: 1334		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	—	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	16.40	1	1354	8.27	13.42	3.084	3.071	2.54	1.54	43.1	
DTB (FEET)	33.21	2	1356	8.29	13.11	3.615	3.014	2.50	1.16	40.3	
DTB - DTW	16.81	3	1357	8.28	13.12	3.594	2.994	2.48	1.34	34.6	
CAPACITY PER FOOT	0.74 - 4"	4	1359	8.26	12.92	3.571	3.017	2.50	1.27	29.3	
3 WELL VOLUMES	8.22	WEATHER CONDITIONS: clear, breezy, sunny, hot 85-90°									
PURGE DATE	8/22/19	WATER APPEARANCE / ODOR:									
START TIME	1338										
END TIME	1353	COMMENTS:									
AMT PURGED	~ 8										
SAMPLE DATE	8/22/19										
SAMPLE TIME	1401										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson / [Signature]											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKTF-43		GAUGE DATE: 8/22/19		TIME: 922	DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	NP	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	3.67	1	0934	7.43	15.77	13.55	10.69	9.68	1.37	84.7	
DTB (FEET)	15.39	2	0935	7.40	15.70	13.27	10.49	9.49	1.95	83.2	
DTB - DTW	11.72	3	0937	7.37	15.81	13.12	10.33	9.33	2.05	79.9	
CAPACITY PER FOOT	0.74 - 4"	4	0938	7.32	15.66	13.41	10.40	9.60	2.03	76.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	5.73	WATER APPEARANCE / ODOR: Reddish-brown color no odor									
PURGE DATE	8/22/19	Duplicate collected									
START TIME	0925										
END TIME	0933	COMMENTS:									
AMT PURGED	4.5										
SAMPLE DATE	8/22/19										
SAMPLE TIME	0940										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Whiting											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKT- <sup>44</sup> TF- <del>2</del>		GAUGE DATE: 8/22/19		TIME: 0815		DUPLICATE: <del>Y</del> N		8011 EDB: Y N		8270 ADD'L: Y N	
DHC (FEET)	NY	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	30.96	1	0815	7.45	13.05	5.342	4.541	3.84	4.35	44.5	
DTB (FEET)	57.22	2	0817	7.40	12.91	5.264	4.434	3.76	4.22	40.4	
DTB - DTW	20.26	3	0850	7.84	12.87	5.243	4.417	3.75	4.13	55.4	
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, sunny 75-80									
3 WELL VOLUMES	9.9										
PURGE DATE	8/22/19	WATER APPEARANCE / ODOR: clear no odor 8270 DUF									
START TIME	0822										
END TIME	0850	COMMENTS:									
AMT PURGED	8.0										
SAMPLE DATE	8/22/19										
SAMPLE TIME	0852										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature: Val Wilson											



Well ID		TEST PARAMETERS									
GAUGE DATE	GAUGE TIME	Volume	TIME	pH	Temperature (Deg. C)	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)	
MW-45	8/19/19	Initial									
	10:48	1									
DHC (FEET)	14.00	2									
DTW (FEET)	14.40	3									
DTB (FEET)	32.16	4									
DTB-DTW	17.68	5									
CAPACITY PER FOOT	0.74 - 4"	6									
	0.163 - 2"										
Notes: Measured from top of protective well PURGING DATA											
3 WELL VOLUMES		Weather Conditions: Sunny ~ 80-90°F									
PURGE DATE		8/19/19									
END OF PURGE TIME		Water Appearance/Odor: N/A									
PURGE AMOUNT		Comments: Soft bottom									
DTW (FEET)											
SAMPLING DATA											
SAMPLE DATE		Weather Conditions:									
DTW (FEET)		Water Appearance/Odor: Same as above									
SAMPLE TIME		Comments:									
SAMPLE LOG											
SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS		PRESERVATIVE						
INSTRUMENTS USED:											

Completed By: Val Wilson

Signature: Valin Wi





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS										
RW 1, 2 5, 6		GAUGE DATE: 8/7/19			TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)		
DTW (FEET)		1										
DTB (FEET)		2										
DTB - DTW		3										
CAPACITY PER FOOT	0.74 - 4"	4										
	0.163 - 2"	WEATHER CONDITIONS:										
3 WELL VOLUMES												
PURGE DATE		WATER APPEARANCE / ODOR:										
START TIME												
END TIME		COMMENTS: Purge system installed on all units - did not gauge										
AMT PURGED												
SAMPLE DATE												
SAMPLE TIME												
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA			5			HCL				
8270		1 LITER AMBER			1			None				
8015D		250 ML AMBER			1			None				
METALS - TOTAL		250 ML PLASTIC			1			HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3				
CATIONS		125 ML PLASTIC			1			H2SO4				
ANIONS		125 ML PLASTIC			1			None				
8011 - EDB		40 ML VOA			1			Na2S2O3				
CYANIDE		500 ML			1			NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter												
Completed by: /s/ Cheryl Johnson/Environmental Specialist												
Signature:												





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
PW-3		GAUGE DATE: 8/28/19		TIME: 1012		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: Enclosed well									
AMT PURGED		let run for 10 mins before sampling									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
PW-4		GAUGE DATE: 8/27/19		TIME: 1300		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Plc, breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Clear									
PURGE DATE		COMMENTS: Enclosed well									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			2			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/12/19		TIME: 1237		DUPLICATE: Y (N)		8011 EDB: Y (N)		8270 ADD'L: (Y) N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	6.94	1	1447	9.0	18.22	1434	.932	.72	4.39	-119.1	
DTB (FEET)	130.83	2	1449	9.0	18.62	1436	.934	.72	4.36	-119.1	
DTB - DTW	123.89	3	1451	9.01	18.98	1439	.935	.72	4.37	-120.0	
CAPACITY PER FOOT	0.74 (4")	4	1453	9.02	19.35	1440	.936	.73	4.34	-120.6	
3 WELL VOLUMES		WEATHER CONDITIONS: plc, slight breeze									
PURGE DATE	8/12	WATER APPEARANCE / ODOR:									
START TIME	1240	clean, no odor									
END TIME		COMMENTS: pump kept losing suction									
AMT PURGED	255										
SAMPLE DATE	8/12										
SAMPLE TIME	1455										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
Manganese			500ml			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/13/19		TIME: 1019		DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>		8011 EDB: Y <input type="radio"/> N <input checked="" type="radio"/>		8270 ADD'L: Y <input checked="" type="radio"/> N <input type="radio"/>			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	4.0	1	1253	9.19	14.81	1446	.940	.73	.76	-127.1	
DTB (FEET)	137.48	2	1255	9.18	15.31	1449	.942	.73	.77	-126.9	
DTB - DTW	138.48	3	1257	9.18	15.79	1452	.944	.73	.77	-124.9	
CAPACITY PER FOOT	0.74 - 4"	4	1259	9.13	16.45	1454	.945	.73	.70	-124.7	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	285	Clear - calm - p/c									
PURGE DATE	8/13	WATER APPEARANCE / ODOR:									
START TIME	1020	Clear - no odor									
END TIME	1250	COMMENTS:									
AMT PURGED	290										
SAMPLE DATE	8/13										
SAMPLE TIME	1200										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
Cyanide											
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/13/19		TIME: 1425		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.00	1	1555	8.90	15.51	1522	.989	.77	1.03	-113.4	
DTB (FEET)	121.72	2	1557	8.85	15.97	1523	.990	.77	1.03	-110.9	
DTB - DTW	114.72	3	1555	8.85	16.37	1526	.992	.77	1.10	-111.2	
CAPACITY PER FOOT	0.74 - 4"	4	1601	8.87	17.00	1527	.993	.77	1.35	-112.3	
	0.163 - 2"	WEATHER CONDITIONS: cloudy, slight breeze									
3 WELL VOLUMES	255	WATER APPEARANCE / ODOR: clear, no odor.									
PURGE DATE		COMMENTS:									
START TIME	1430										
END TIME											
AMT PURGED	260										
SAMPLE DATE	8/13										
SAMPLE TIME	1605										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
Cyanide											
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 1450		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	11.05	1	1621	9.60	14.52	1.480	.962	.75	1.30	56.3	
DTB (FEET)	130.83	2	1623	9.59	14.60	1.480	.962	.75	1.25	55.2	
DTB - DTW	119.78	3	1625	9.58	14.68	1.480	.962	.75	1.23	53.9	
CAPACITY PER FOOT	0.74 4"	4	1627	9.58	14.70	1.481	.963	.75	1.21	52.7	
3 WELL VOLUMES	266	WEATHER CONDITIONS: Plc, breezy									
PURGE DATE		WATER APPEARANCE / ODOR: clear, no odor									
START TIME											
END TIME		COMMENTS:									
AMT PURGED	2.70										
SAMPLE DATE	8/14										
SAMPLE TIME	1430										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/1/19		TIME: 1304		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	2453	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		plc - slight breeze									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		N/A									
END TIME		COMMENTS:									
AMT PURGED		Installed dedicated pump = 50'									
		DTW after: 23.7									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

Cyanide

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/19/19		TIME: 1219		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.5	1	1449	7.69	13.9	12242			1.80	104.1	
DTB (FEET)	52.8	2	1451	7.54	13.9	12191			1.76	102.9	
DTB - DTW	28.3	3	1453	7.49	14.0	12153			1.66	102.1	
CAPACITY PER FOOT	0.74 - 4"	4	1455	7.45	14.1	12124			1.63	101.9	
3 WELL VOLUMES	0.163 2"	WEATHER CONDITIONS: 8/22/19 - PLC - breezy									
PURGE DATE	8/22	WATER APPEARANCE / ODOR: Clear - cloudy - No odor									
START TIME											
END TIME	1445	COMMENTS: 8/22/19 - Removed dedicated pump - would not work. Hand bailed New DTW = 25.3 @ 1423									
AMT PURGED	13	stopped 1445 - bailed 13 gals.									
SAMPLE DATE	8/22										
SAMPLE TIME	1458										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
Cyanide											
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/13/19		TIME: 0953		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	29.1	1	1303	8.62	14.15	1661	1.08	0.84	0.84	-99.3	
DTB (FEET)	69.6	2	1305	8.62	14.23	1666	1.083	0.85	.80	-99.1	
DTB - DTW	40.58	3	1307	8.61	14.40	1668	1.084	0.85	.79	-98.8	
CAPACITY PER FOOT	0.74 - 4"	4	1309	8.59	14.57	1671	1.086	0.85	.79	-98.0	
	0.163 (2")	WEATHER CONDITIONS:									
3 WELL VOLUMES	20	Clean, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	0955	Clean, no odor									
END TIME	10	COMMENTS:									
AMT PURGED		1016 - lost suction @ 11 gals - well allow to recha before collecting samples									
SAMPLE DATE	8/13										
SAMPLE TIME	1315										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/6/19		TIME: 1150		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	20.9	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	20.77	1								
DTB (FEET)	26.2	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		SPH = 0.13								
END TIME		COMMENTS:								
AMT PURGED		No Samples Collected								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/6/19		TIME: 1152		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	DRY	1								
DTB (FEET)	11.46	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR: DRY = 11.46								
START TIME										
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/6/19		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	DRY	1								
DTB (FEET)	11.54	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		11.54 - DRY								
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/12/19		TIME: 1011		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.5	1	1142	7.71	17.03	1638	1.065	.83	.68	-58	
DTB (FEET)	99.15	2	1144	7.73	17.59	1638	1.065	.83	.66	-56.3	
DTB - DTW	78.65	3	1146	7.75	18.14	1638	1.065	0.83	.66	-57.1	
CAPACITY PER FOOT	0.74 - 4"	4	1148	7.77	18.68	1641	1.067	0.83	.68	-58.3	
0.163 - 2"		WEATHER CONDITIONS: Clear, light breeze									
3 WELL VOLUMES	179	WATER APPEARANCE / ODOR: clear, no odor									
PURGE DATE	8/12										
START TIME	1015										
END TIME		COMMENTS:									
AMT PURGED	180										
SAMPLE DATE	8/12										
SAMPLE TIME	1151										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/12/19		TIME:			DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS: Not able to gauge - has purge system installed. Did not sample.								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE		
8260B (3) / 8015D (2)		40 ML VOA			5			HCL		
8270		1 LITER AMBER			1			None		
8015D		250 ML AMBER			1			None		
METALS - TOTAL		250 ML PLASTIC			1			HNO3		
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3		
CATIONS		125 ML PLASTIC			1			H2SO4		
ANIONS		125 ML PLASTIC			1			None		
8011 - EDB		40 ML VOA			1			Na2S2O3		
CYANIDE		500 ML			1			NaOH		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/12/19		TIME: 0847		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.16	1	0941	6.41	13.80	2473	1.607	1.28	1.52	20.4	
DTB (FEET)	51.08	2	0943	6.54	14.15	2474	1.608	1.28	0.92	8.4	
DTB - DTW	33.92	3	0945	6.63	14.51	2482	1.608	1.28	0.76	2.2	
CAPACITY PER FOOT	0.74 - 4"	4	0947	6.71	14.81	2494	1.613	1.29	0.78	-2.1	
0.163 - 2"		WEATHER CONDITIONS: clear, calm									
3 WELL VOLUMES	75										
PURGE DATE	8/12	WATER APPEARANCE / ODOR:									
START TIME	0854	Clear - no odor									
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	8/12/19										
SAMPLE TIME	0950										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5 ✓		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1 ✓		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/12/19		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS:								
AMT PURGED		Not able to gauge - has purge system installed. Did not collect samples								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
Gauge Date:		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		COMMENTS:								
START TIME										
END TIME										
AMT PURGED										
SAMPLE DATE	8/22									
SAMPLE TIME	1015									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D 3/2		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date:		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	8/22										
SAMPLE TIME	1020										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/22/19		TIME: 1010		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	7.45	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.93	1									
DTB (FEET)	13.53	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear - breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer =									
PURGE DATE		COMMENTS: NO Samples collected									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/22/19		TIME: 0840		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.15	1	0847	7.47	26.2	2679			1.62	-51.7	
DTB (FEET)	13.61	2	0849	7.47	25.2	2680			1.58	-55.2	
DTB - DTW	4.46	3	0851	7.47	25.1	2676			1.58	-56.7	
CAPACITY PER FOOT	0.74 - 4"	4	0853	7.47	25.0	2673			1.58	-57.7	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	2	clean, cool m									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clean - slight gwt tint									
END TIME	0849	COMMENTS:									
AMT PURGED	2										
SAMPLE DATE											
SAMPLE TIME	0855										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0951		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	10.18	1	1022	8.07	20.6	3160			1.69	81.9	
DTB (FEET)	30.42	2	1024	8.06	20.7	3165			1.68	81.9	
DTB - DTW	20.24	3	1026	8.07	20.7	3148			1.60	81.9	
CAPACITY PER FOOT	0.74 - 4"	4	1028	8.07	20.7	3144			1.65	82.0	
	0.163 - 2"	WEATHER CONDITIONS: clear-breezy									
3 WELL VOLUMES	10										
PURGE DATE	8/22	WATER APPEARANCE / ODOR: clear									
START TIME	0954										
END TIME	1004	COMMENTS:									
AMT PURGED	6										
SAMPLE DATE											
SAMPLE TIME	1030										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

2L

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/22/19		TIME: 0910		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.05	1	0928	7.29	26.1	2527			1.04	-23.7	
DTB (FEET)	23.20	2	0930	7.28	24.9	2524			1.04	-27.7	
DTB - DTW	14.15	3	0932	7.28	24.7	2519			1.04	-29.2	
CAPACITY PER FOOT	0.74 - 4"	4	0934	7.28	24.6	2518			1.04	-29.9	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	7	clear, calm - windy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	0913	clear w/ red particles floating in water									
END TIME	0922	COMMENTS:									
AMT PURGED	0.7										
SAMPLE DATE											
SAMPLE TIME	0935										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

Ganicle  
Duplicate

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/22/19		TIME: 1100		DUPLICATE: Y / N		8011 EDB: Y (N)		8270 ADD'L: Y (N)		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	11.09	1	1122	7.24	17.9	6669			0.9	-553
DTB (FEET)	26.0	2	1124	7.24	18.0	6668			0.87	-66
DTB - DTW	14.91	3	1126	7.25	18.0	6669			0.85	-55.8
CAPACITY PER FOOT	0.74 - 4"	4	1128	7.23	18.1	6669			0.83	-54.8
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	7	Clear - breezy								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		clear - w/ light tint - slight odor								
END TIME		COMMENTS:								
AMT PURGED	7									
SAMPLE DATE										
SAMPLE TIME	1130									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D 3/2		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		2		Na2S203				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

2X

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1008		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N			
DHC (FEET)	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)		
DTW (FEET)	1	1131	7.88	15.7	8188	X	X	1.65	91.6		
DTB (FEET)	2	1133	7.87	15.4	8203			1.62	90.7		
DTB - DTW	3	1135	7.85	15.5	8193			1.55	90.2		
CAPACITY PER FOOT	4	1137	7.84	15.5	8208			1.51	89.8		
CAPACITY PER FOOT		WEATHER CONDITIONS:									
0.74 - 4"		Cloudy - calm									
0.163 - 2"											
3 WELL VOLUMES		WATER APPEARANCE / ODOR:									
PURGE DATE		Clear									
START TIME		COMMENTS:									
END TIME		Job stopped - severe weather warning									
AMT PURGED		12									
SAMPLE DATE		8/21/19									
SAMPLE TIME		1140									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
STP1-SW		GAUGE DATE: 8/21/19		TIME: 1004	DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)	29.1	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS: Did not gauge - high located in high H2S area								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE		
8260B (3) / 8015D (2)		40 ML VOA			5			HCL		
8270		1 LITER AMBER			1			None		
8015D		250 ML AMBER			1			None		
METALS - TOTAL		250 ML PLASTIC			1			HNO3		
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3		
CATIONS		125 ML PLASTIC			1			H2SO4		
ANIONS		125 ML PLASTIC			1			None		
8011 - EDB		40 ML VOA			1			Na2S2O3		
CYANIDE		500 ML			1			NaOH		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/15/19		TIME: 1019		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	1.37	1	1132	9.66	13.73	1.859	1.209	.95	1.41	62.3	
DTB (FEET)	94.55	2	1134	9.66	13.80	1.860	1.209	0.95	1.27	61.2	
DTB - DTW	93.18	3	1136	9.65	13.90	1.863	1.211	0.95	1.15	59.8	
CAPACITY PER FOOT	0.74 - 4"	4	1138	9.63	14.34	1.875	1.219	0.96	0.94	52.3	
0.163 - 2"		WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear, breezy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		Clear - no odor									
END TIME		COMMENTS:									
AMT PURGED		Lost suction @ 66 gal. well allow to rehq before collecting samples.									
SAMPLE DATE		8/15									
SAMPLE TIME		1140									
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/15/19		TIME: 1200		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	1.02	1	1232	8.25	15.30	4.470	2.904	2.4	1.06	82.0	
DTB (FEET)	60.33	2	234	8.24	15.58	4.456	2.895	2.39	1.17	69.0	
DTB - DTW	59.31	3	1236	8.25	15.76	4.449	2.892	2.39	1.22	69.2	
CAPACITY PER FOOT	0.74 - 4"	4	1238	8.20	15.79	4.450	2.893	2.39	1.21	69.4	
3 WELL VOLUMES	132	WEATHER CONDITIONS: p/c - slight breeze									
PURGE DATE		WATER APPEARANCE / ODOR: clear -									
START TIME	1201										
END TIME		COMMENTS:									
AMT PURGED	135										
SAMPLE DATE											
SAMPLE TIME	1240										
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D			40 ML VOA		5		HCL				
8270			1 LITER AMBER		1		None				
8015D			250 ML AMBER		1		None				
METALS - TOTAL			250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3				
CATIONS			125 ML PLASTIC		1		H2SO4				
ANIONS			125 ML PLASTIC		1		None				
8011 - EDB			40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/11/19		TIME: 1105		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.85	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: p/c - HOT - CALM									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: N/A									
PURGE DATE		COMMENTS: Installed dedicated pump: 63'									
START TIME		DTW after = 17.68									
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D			40 ML VOA		5		HCL				
8270			1 LITER AMBER		1		None				
8015D			250 ML AMBER		1		None				
METALS - TOTAL			250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3				
CATIONS			125 ML PLASTIC		1		H2SO4				
ANIONS			125 ML PLASTIC		1		None				
8011 - EDB			40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 0920		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.7	1	1055	8.56	14.3	2952			1.22	57.1	
DTB (FEET)	65.79	2	1057	8.54	14.4	2941			1.08	55.2	
DTB - DTW	48.09	3	1059	8.53	14.5	2929			1.06	54.2	
CAPACITY PER FOOT	0.74 - 4"	4	1101	8.53	14.5	2923			1.06	53.3	
0.163 - 2"		WEATHER CONDITIONS:									
3 WELL VOLUMES		106 p/c - calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
8/20		clear - no odor									
START TIME		0955									
END TIME		1058									
AMT PURGED		110									
SAMPLE DATE		8/20									
SAMPLE TIME		1105									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		2		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/1/19		TIME: 11:43		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	46.0	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: p/c, HOT - calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: N/A									
START TIME											
END TIME		COMMENTS: Installed dedicated pump: 125'									
AMT PURGED		DTW after: 44.95									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 1030		DUPLICATE: Y / <input checked="" type="radio"/> N		8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N			
DHC (FEET)	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)		
DTW (FEET)	14.74	1	1028	8.42	13.96	1.59	.988	.77	.64	41.3	
DTB (FEET)	64.0	2	1030	8.41	14.01	1.521	.989	.77	0.64	39.4	
DTB - DTW	49.26	3	1032	8.40	14.07	1.523	.990	.77	0.64	37.8	
CAPACITY PER FOOT	0.74 - 4"	4	1034	8.39	14.13	1.523	.990	0.77	0.64	35.9	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	24	clean - breeze									
PURGE DATE	8/16	WATER APPEARANCE / ODOR:									
START TIME	1022	clean - no odor									
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME	1037										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/16/19		TIME: 1048		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	1421	1	1101	6.76	12.88	1.301	.845	0.65	1.01	-82.7	
DTB (FEET)	77.74	2	1103	8.76	12.98	1.301	.845	0.65	0.94	-87.9	
DTB - DTW	63.53	3	1105	8.75	13.14	1.301	0.845	0.65	1.87	-93.1	
CAPACITY PER FOOT	0.74 - 4"	4	1107	8.75	12.30	1.299	.845	0.65	0.80	-95.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	31	plc - breezy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	1050	clean - no odor									
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	8/16										
SAMPLE TIME	1110										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0945		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	DRY	1									
DTB (FEET)	3395	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		No Samples collected.									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			2			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

DWP

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/21/19		TIME: 0924		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	18.0	1	1220	7.47	14.2	2310			137	18.0	
DTB (FEET)	31.04	2	1222	7.46	14.0	2309			134	17.9	
DTB - DTW	13.04	3	1224	7.45	14.2	2295			128	17.3	
CAPACITY PER FOOT	0.74 - 4"	4	1226	7.45	14.3	2286			124	16.5	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Cloudy, calm									
PURGE DATE	8/21/19	WATER APPEARANCE / ODOR:									
START TIME		clear - pink									
END TIME		COMMENTS:									
AMT PURGED	10	Has purge system set up - ready to install.									
SAMPLE DATE	8/21										
SAMPLE TIME	1230										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW.55		Gauge Date: 8/21/19		Time: 0929		Duplicate: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.7	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		No Samples collected - purge system installed.									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0911		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.66	1	1255	7.49	14.1	3128			2.23	71.8	
DTB (FEET)	18.59	2	1257	7.49	14.1	3121			2.18	71.3	
DTB - DTW	4.93	3	1259	7.49	14.2	3119			2.17	70.7	
CAPACITY PER FOOT	0.74 - 4"	4	1301	7.49	14.2	3118			2.17	70.3	
0.163 - 2"		WEATHER CONDITIONS:									
3 WELL VOLUMES		2.4 cloudy, calm									
PURGE DATE		8/21 WATER APPEARANCE / ODOR:									
START TIME		clean - cloudy									
END TIME		COMMENTS:									
AMT PURGED		2									
SAMPLE DATE		8/21									
SAMPLE TIME		1302									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		2		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1505		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	19.78	1	1328	7.35	15.1	2143			1.15	-18.7	
DTB (FEET)	28.1	2	1330	7.34	15.2	2141			1.16	-19.4	
DTB - DTW	8.32	3	1332	7.32	15.2	2117			1.12	-22.7	
CAPACITY PER FOOT	0.74 - 4"	4	1334	7.32	15.3	2092			1.11	-24.6	
	0.163 - 2"	WEATHER CONDITIONS: P/c, calm									
3 WELL VOLUMES	4	WATER APPEARANCE / ODOR: Clear - pink - muddy - slight skunk									
PURGE DATE	8/20										
START TIME	1510										
END TIME	1515	COMMENTS: will allow to recharge									
AMT PURGED	1.75										
SAMPLE DATE	8/21/19										
SAMPLE TIME	1336										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		2		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1547		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.0	1	1552	7.14	16.0	1991			.88	-74.0	
DTB (FEET)	47.3	2	1554	7.15	15.9	1978			.78	-74.1	
DTB - DTW	23.3	3	1556	7.15	16.1	1972			.76	-74.3	
CAPACITY PER FOOT	0.74 - 4"	4	1558	7.15	16.3	1966			.73	-74.6	
	0.163 - 2"	WEATHER CONDITIONS: ple, slight breeze									
3 WELL VOLUMES	11										
PURGE DATE		WATER APPEARANCE / ODOR: clear - cloudy									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	8/22/19										
SAMPLE TIME	1600										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		2		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 0951		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.02	1	1159	7.62	14.4	11582			3.5	94.4	
DTB (FEET)	38.3	2	1201	7.62	14.4	11588			2.97	94.3	
DTB - DTW	14.28	3	1203	7.62	14.4	11614			2.85	94.3	
CAPACITY PER FOOT	0.74 - 4"	4	1205	7.62	14.4	11631			2.79	94.3	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	7	Cloudy, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clear									
END TIME		COMMENTS:									
AMT PURGED	7										
SAMPLE DATE	8/21										
SAMPLE TIME	1208										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			2			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8-1-19		TIME: 1404		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	16.6	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: plc, calm									
PURGE DATE		WATER APPEARANCE / ODOR: N/A									
START TIME											
END TIME		COMMENTS: Installed dedicated pump: 44'									
AMT PURGED		DTW after = 15.13									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/21/19		TIME: 1500		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	1653	1	1548	8.08	21.5	7774			5.17	88.6	
DTB (FEET)	455	2	1550	8.99	21.5	7748			4.97	86.6	
DTB - DTW	28.97	3	1552	8.96	21.6	7741			4.97	86.4	
CAPACITY PER FOOT	0.74 - 4"	4	1554	7.92	21.6	7674			4.78	85.8	
	0.163 - 2"	WEATHER CONDITIONS: plc, breezy									
3 WELL VOLUMES	14										
PURGE DATE	8/21	WATER APPEARANCE / ODOR: clean - no odor									
START TIME	1517										
END TIME	1525	COMMENTS: lost suction @ 65 gals - will allow to recharge									
AMT PURGED	6.5										
SAMPLE DATE	8/21										
SAMPLE TIME	1554										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/20/19		TIME: 1447		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	17.42	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.15	1									
DTB (FEET)	32.0	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		plc, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		SPH layer =									
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D 3/2		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/20/19		TIME: 1922		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	23.84	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.29	1									
DTB (FEET)	31.47	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc, slight breeze									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer =									
PURGE DATE		COMMENTS: No Samples Collected									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			2			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/1/19		TIME: 1040		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	<del>20.3</del>	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.3	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc - HOT									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:  									
START TIME											
END TIME		COMMENTS: Installed dedicated pump: 30'									
AMT PURGED		DTW after: 20.22									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/19/19		TIME: 1453		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.12	1	1517	7.18	15.8	1996			2.08	-220.5	
DTB (FEET)	32.0	2	1519	7.18	15.6	1890			1.99	-216.2	
DTB - DTW	11.88	3	1521	7.18	15.8	1847			1.1	-200.1	
CAPACITY PER FOOT	0.74 - 4"	4	1523	7.19	16.1	1847			1.94	-200.1	
3 WELL VOLUMES		WEATHER CONDITIONS: Clear - plc - calm									
PURGE DATE	8/19/19	WATER APPEARANCE / ODOR: Clear									
START TIME	1500										
END TIME	1521	COMMENTS:									
AMT PURGED	2.7										
SAMPLE DATE	8/19										
SAMPLE TIME	1526										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 8/11/19		TIME: 10:17		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.35	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc - HOT!									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: Installed dedicated pump. 25'									
AMT PURGED		DTW - after 7.25									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/19/19		TIME: 1406		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	7.1	1	1549	7.91	18.1	2151			371	-4.8
DTB (FEET)	27.63	2	1551	7.91	18.0	2087			4.38	-3.4
DTB - DTW	20.93	3	1553	7.91	18.4	2070			4.12	-1.9
CAPACITY PER FOOT	0.74 - 4"	4	1555	7.90	18.4	2071			3.86	0.1
3 WELL VOLUMES	40	WEATHER CONDITIONS: PK, calm								
PURGE DATE	8/19	WATER APPEARANCE / ODOR: Clear								
START TIME	1408									
END TIME	1435	COMMENTS: pump lost suction - well allow to recharge								
AMT PURGED	27.5									
SAMPLE DATE	8/19									
SAMPLE TIME	1559									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		2		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-65		GAUGE DATE: 8/20/19		TIME: 1455		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	21.91	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	31.15	1									
DTB (FEET)	40.0	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Pleasant, calm									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer =									
PURGE DATE		COMMENTS: NO Samples collected									
START TIME		SPH layer									
END TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B / 8015D 3/2		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS - DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			2			Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 0838		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	42.9	1									
DTB (FEET)	42.93	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		not enough wtr to sample									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D			40 ML VOA		5		HCL				
8270			1 LITER AMBER		1		None				
8015D			250 ML AMBER		1		None				
METALS - TOTAL			250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3				
CATIONS			125 ML PLASTIC		1		H2SO4				
ANIONS			125 ML PLASTIC		1		None				
8011 - EDB			40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
130-113		GAUGE DATE: 8/14/19		TIME: 0845		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	73.14	1									
DTB (FEET)	72.22	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		N/A									
END TIME		COMMENTS:									
AMT PURGED		Not enough water to sample									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 0851		DUPLICATE: Y / N		8011 EDB: Y / <u>N</u>		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	12.39	1	0944	8.98	17.41	1719	1.118	.87	1.05	-117.9	
DTB (FEET)	141.89	2	0946	8.97	17.51	1726	1.122	.88	1.20	-117.4	
DTB - DTW	129.5	3	0948	8.97	17.63	1730	1.124	.88	1.17	-117.2	
CAPACITY PER FOOT	0.74 - 4"	4	0950	8.96	17.82	1732	1.126	.88	1.17	-117.1	
	0.163 - 2"										
3 WELL VOLUMES		WEATHER CONDITIONS: Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		Clear, no odor									
END TIME		COMMENTS:									
AMT PURGED		55									
SAMPLE DATE											
SAMPLE TIME		0952									
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/14/19		TIME: 1054		DUPLICATE: Y / N		8011 EDB: Y / (N)		8270 ADD'L: Y / (N)		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	32.26	1	1101	8.43	14.49	1.759	1.143	0.9	.87	-119.5
DTB (FEET)	67.57	2	1103	8.41	14.54	1.759	1.143	0.9	.87	-119
DTB - DTW	35.31	3	1105	8.39	14.62	1.760	1.144	0.9	.86	-118.5
CAPACITY PER FOOT	0.74 - 4"	4	1107	8.38	14.67	1.760	1.144	0.9	.86	-117.9
	0.163 (2")	WEATHER CONDITIONS:								
3 WELL VOLUMES	17	p/c, calm								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		Clear - slight yew - no odor								
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	8/14									
SAMPLE TIME	1111									
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE		
8260B / 8015D			40 ML VOA			5		HCL		
8270			1 LITER AMBER			1		None		
8015D			250 ML AMBER			1		None		
METALS - TOTAL			250 ML PLASTIC			1		HNO3		
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3		
CATIONS			125 ML PLASTIC			1		H2SO4		
ANIONS			125 ML PLASTIC			1		None		
8011 - EDB			40 ML VOA			1		Na2S203		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 1018		DUPLICATE: Y <input checked="" type="checkbox"/> N		8011 EDB: Y <input checked="" type="checkbox"/> N		8270 ADD'L: Y <input checked="" type="checkbox"/> N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	28.45	1	1033	8.5	15.03	2.889	1.878	1.51	1.76	-1279	
DTB (FEET)	92.26	2	1035	8.56	15.26	2.880	1.872	1.51	1.30	-125	
DTB - DTW	63.81	3	1037	8.46	15.39	2.878	1.870	1.50	1.13	-122.4	
CAPACITY PER FOOT	0.74 - 4"	4	1039	8.37	15.55	2.875	1.869	1.50	1.04	-121.3	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	31	ple, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	1019	Clean - cloudy - pink - cloudy									
END TIME		COMMENTS:									
AMT PURGED	30										
SAMPLE DATE	8/13										
SAMPLE TIME	1042										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 1122		DUPLICATE: Y <input checked="" type="radio"/> N		8011 EDB: Y <input checked="" type="radio"/> N		8270 ADD'L: Y <input checked="" type="radio"/> N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	21.2	1	1207	9.03	16.26	1.743	1.133	.89	1.00	30.8	
DTB (FEET)	152.84	2	1209	9.03	16.27	1.745	1.134	.89	1.03	30.7	
DTB - DTW	131.64	3	1211	9.02	16.33	1.746	1.135	.89	1.02	29.6	
CAPACITY PER FOOT	0.74 - 4"	4	1213	9.01	16.45	1.746	1.135	.89	1.01	28.8	
	0.163 - 6"	WEATHER CONDITIONS:									
3 WELL VOLUMES	104	p/c - calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clear - pink - cloudy no odor									
END TIME		COMMENTS:									
AMT PURGED	100										
SAMPLE DATE	8/14										
SAMPLE TIME	1216										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/14/19		TIME: 1254		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	DRY	1								
DTB (FEET)	52.65	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES		WATER APPEARANCE / ODOR:								
PURGE DATE		COMMENTS:								
START TIME										
END TIME										
AMT PURGED		No Samples collected - DRY								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/14/19		TIME: 1235		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	33.31	1	1412	8.62	13.32	1.962	1.275	1.01	.26	-170.9	
DTB (FEET)	69.40	2	1414	8.61	13.34	1.960	1.274	1.01	.27	-171.1	
DTB - DTW	36.09	3	1416	8.61	13.36	1.962	1.275	1.01	.28	-171.2	
CAPACITY PER FOOT	0.74 - 4"	4	1418	8.60	13.54	1.963	1.276	1.01	.29	-171.5	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	18	cloudy, breezy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clear - cloudy									
END TIME		COMMENTS:									
AMT PURGED	18										
SAMPLE DATE	8/14										
SAMPLE TIME	1420										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/14/19		TIME: 1245		DUPLICATE: Y / <input checked="" type="radio"/> N			8011 EDB: Y / <input checked="" type="radio"/> N		8270 ADD'L: Y / <input checked="" type="radio"/> N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	7.84	1	1338	9.13	16.25	1.964	1.277	1.01	3.06	-52.8
DTB (FEET)	154.55	2	1340	9.12	16.31	1.965	1.277	1.01	3.02	-55.1
DTB - DTW	146.69	3	1342	9.12	16.35	1.966	1.278	1.01	3.00	-57.3
CAPACITY PER FOOT	0.74 - 4"	4	1344	9.11	16.40	1.967	1.279	1.01	2.98	-58
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	72	plc, calm								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		Clear - cloudy - no odor								
END TIME	1340	COMMENTS:								
AMT PURGED	35	pump lost suction @ 35 gals - well allow to rechg before sampling								
SAMPLE DATE										
SAMPLE TIME	1345									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 8/23/19		TIME: 0820		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	DRY	1								
DTB (FEET)	38.8	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME										
END TIME		COMMENTS: No samples collected - DRY								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/23/19		TIME: 0830		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	460	1									
DTB (FEET)	635	2	Did not record readings								
DTB - DTW	125	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 (2)	WEATHER CONDITIONS:									
3 WELL VOLUMES	6	plc, breezes									
PURGE DATE	8/23	WATER APPEARANCE / ODOR:									
START TIME		clear - pink									
END TIME		COMMENTS:									
AMT PURGED	2	pump lost suction @ 2 gals									
SAMPLE DATE	8/23										
SAMPLE TIME	1027										
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B / 8015D			40 ML VOA		5		HCL				
8270			1 LITER AMBER		1		None				
8015D			250 ML AMBER		1		None				
METALS - TOTAL			250 ML PLASTIC		1		HNO3				
METALS - DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3				
CATIONS			125 ML PLASTIC		1		H2SO4				
ANIONS			125 ML PLASTIC		1		None				
8011 - EDB			40 ML VOA		1		Na2S2O3				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/15/19		TIME: 0855		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	2126	1									
DTB (FEET)	21.3	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: No samples collected - not enough water									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B / 8015D		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS - DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/15/19		TIME: 0850		DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/>		8011 EDB: Y <input type="radio"/> N <input checked="" type="radio"/>		8270 ADD'L: Y <input type="radio"/> N <input checked="" type="radio"/>			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	967	1	1440	8.99	13.07	2.804	1.823	1.46	2.21	502	
DTB (FEET)	61.45	2	1442	8.99	13.11	2.805	1.823	1.47	2.17	49.9	
DTB - DTW	51.78	3	1444	8.98	13.21	2.819	1.832	1.47	2.20	49.8	
CAPACITY PER FOOT	0.74 - 4"	4	1446	8.99	13.47	2.828	1.838	1.48	2.30	49.5	
	0.163 (2")	WEATHER CONDITIONS:									
3 WELL VOLUMES	25	Clear, calm									
PURGE DATE	8/15	WATER APPEARANCE / ODOR:									
START TIME	0931	clear - no odor									
END TIME		COMMENTS:									
AMT PURGED	10	pump lost suction - will allow to recharge before collecting samples									
SAMPLE DATE	8/15										
SAMPLE TIME	1448										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 8/15/19		TIME: 0857		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	2.69	1	0855	8.48	12.98	6.400	4.164	3.52	6.0	-139.1	
DTB (FEET)	2.3	2	0857	8.46	13.01	6.409	4.166	3.52	0.59	-140.2	
DTB - DTW	20.31	3	0859	8.45	13.06	6.410	4.167	3.52	0.58	-140.5	
CAPACITY PER FOOT	0.74 - 4"	4	0901	8.44	13.08	6.413	4.168	3.52	0.58	-140.6	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	10	clear, calm									
PURGE DATE	8/15	WATER APPEARANCE / ODOR:									
START TIME	0900	clear - pink - cloudy - no odor									
END TIME		COMMENTS:									
AMT PURGED	10										
SAMPLE DATE	8/15										
SAMPLE TIME	0905										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B / 8015D			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS - DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/16/19		TIME: 1420		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	1.45	1	1535	9.02	13.5	1.5	975	.76	.54	172.9	
DTB (FEET)	94.55	2	1537	9.01	13.5	1.5	975	.76	.62	172.4	
DTB - DTW	93.1	3	1539	9.02	13.5	1.5	975	.76	.51	172.0	
CAPACITY PER FOOT	0.74 - 4"	4	1541	9.02	13.5	1.5	975	.76	.51	171.6	
3 WELL VOLUMES	206	WEATHER CONDITIONS: Clear, slight breeze									
PURGE DATE	10/16/19	WATER APPEARANCE / ODOR: Clear									
START TIME	1430	COMMENTS: lost suction @ #2 gals									
ID TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME	1545										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 2019

Dup

8011

SAMPLE ID		TEST PARAMETERS									
10-17-19		TIME: 0740		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
GAUGE DATE: 8W-10											
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	233	1	0820	8.03	12.4	5.97	380.5	3.26	1.9	258.7	
DTB (FEET)	6033	2	0822	7.90	12.2	5.49	3900	3.28	1.99	257.6	
DTB - DTW	58.0	3	0824	7.83	12.2	6.03	3919	3.30	1.95	251.4	
CAPACITY PER FOOT	0.74 - 4"	4	0826	7.82	12.0	6.04	3926	3.30	1.91	249.9	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	128	puncast - calm									
PURGE DATE	10/17	WATER APPEARANCE / ODOR:									
START TIME	0745	Clear - no odor									
ID TIME		COMMENTS:									
AMT PURGED	128										
SAMPLE DATE											
SAMPLE TIME	0830										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2) ✓		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D ✓		250 ML AMBER		1		None					
METALS - TOTAL ✓		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS ✓		125 ML PLASTIC		1		H2SO4					
ANIONS ✓		125 ML PLASTIC		1		None					
8011 - EDB ✓		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-12		GAUGE DATE: 8/21/19		TIME: 1620		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	45.92	1									
DTB (FEET)	128.85	2									
DTB - DTW	82.93	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	184	plc breezy									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		10LIS - Installed dedicated pump - in op -									
SAMPLE DATE		Mixed portable reel pump - also in op -									
SAMPLE TIME		Took dedicated pump out + sent app for repair. No samples collected @ this time									
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

Dup.

SAMPLE ID		TEST PARAMETERS									
OW-12		GAUGE DATE: 12/3/19		TIME: 1200		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	49.1	1	1426	9.75	13.8	1.18	773.5	0.60	1.41	212.4	
DTB (FEET)	128.85	2	1428	9.75	13.4	1.19	773.5	0.60	1.35	209.6	
DTB - DTW	83.75	3	1430	9.76	13.3	1.19	773.5	0.60	1.39	208.9	
CAPACITY PER FOOT	0.74 - 4"	4	1432	9.76	13.2	1.20	780.0	0.60	1.43	205.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	186	clear, calm									
PURGE DATE	12/3	WATER APPEARANCE / ODOR:									
START TIME	1205	clear, no odor									
END TIME		COMMENTS:									
AMT PURGED		pump lost suction @ 52 gals - will allow to rehq.									
SAMPLE DATE		Re-installed repaired pump 12/2/19									
SAMPLE TIME	1435										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/14/19		TIME: 1200		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.74	1	1240	8.33	12.8	816.47	1131	.87	1.83	1747	
DTB (FEET)	99.15	2	1242	8.27	13.1	835.21	1040	.81	1.69	1757	
DTB - DTW	78.41	3	1244	8.20	13.2	849.2	968	.76	1.66	1729	
CAPACITY PER FOOT	0.74 - 4"	4	1246	8.18	13.3	857.8	975	.76	1.59	1779	
3 WELL VOLUMES	175	WEATHER CONDITIONS: Plc, slight breeze									
PURGE DATE	10/14	WATER APPEARANCE / ODOR: clean, no odor									
START TIME	10/14	COMMENTS:									
ID TIME	1200										
AMT PURGED	175										
SAMPLE DATE	10/14										
SAMPLE TIME	1250										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2) ✓		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL ✓		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB ✓		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

EDB/Dup

SAMPLE ID		TEST PARAMETERS									
DW-29		GAUGE DATE: 10/14/19		TIME: 1328		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.24	1	1350	7.64	13.9		1358.5	1.07	3.56	122.4	
DTB (FEET)	51.08	2	1352	7.61	14.0		1358.5	1.07	3.52	119.4	
DTB - DTW	33.84	3	1354	7.59	14.0		1358.5	1.08	3.48	117.1	
CAPACITY PER FOOT	0.74 - 4"	4	1356	7.58	14.2		1358.5	1.08	3.43	115.3	
	0.163 - 2"	WEATHER CONDITIONS: plc, breezy									
3 WELL VOLUMES	75										
PURGE DATE	10/14	WATER APPEARANCE / ODOR:									
START TIME	1330	clear, no odor									
END TIME		COMMENTS:									
AMT PURGED	75										
SAMPLE DATE	10/14										
SAMPLE TIME	1400										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2) ✓		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D ✓		250 ML AMBER		1		None					
METALS - TOTAL ✓		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB ✓		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

448  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-50		GAUGE DATE: 10-15-19		TIME: 0817		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.92	1	0831	8.42	12.1	1.38	845	.65	.61	170.2	
DTB (FEET)	64.0	2	0833	8.41	12.5	1.29	838.5	.65	.63	169.4	
DTB - DTW	49.08	3	0835	8.40	12.4	1.29	838.5	.66	.61	167.4	
CAPACITY PER FOOT	0.74 - 4"	4	0837	8.40	12.3	1.29	838.5	.65	.61	165.9	
	0.163 - 2"	WEATHER CONDITIONS: clear, calm									
3 WELL VOLUMES	24	WATER APPEARANCE / ODOR: clear, no odor									
PURGE DATE	10/15	COMMENTS: run chem pH spec cond.									
START TIME	0835										
ID TIME											
AMT PURGED											
SAMPLE DATE	10/15										
SAMPLE TIME	0840										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4401  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/15/19		TIME: 0859		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.4	1	0917	8.72	12.2	9.34	871	.67	.70	134.3	
DTB (FEET)	77.74	2	0919	8.64	12.1	1.32	845	.63	.66	132.	
DTB - DTW	63.34	3	0921	8.62	12.1	1.26	825.5	.63	.63	127.3	
CAPACITY PER FOOT	0.74 - 4"	4	0923	8.59	12.1	1.24	806	0.62	0.58	124.6	
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES	31	WATER APPEARANCE / ODOR: Clear, no odor									
PURGE DATE	10/15	COMMENTS:									
START TIME	0905										
ID TIME											
AMT PURGED	31										
SAMPLE DATE	10/15										
SAMPLE TIME	0925										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
Gauge Date: 10/15/19		TIME: 0950		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	16.41	1	1020	8.05	14.6	7.40	4810	4.10	1.07	88.1	
DTB (FEET)	45.5	2	1022	7.96	14.6	7.40	4810	4.10	.94	79.2	
DTB - DTW	29.09	3	1024	7.93	14.6	7.40	4810	4.10	0.80	73.1	
CAPACITY PER FOOT	0.74 - 4"	4	1026	7.89	14.5	7.40	4810	4.10	0.82	68.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	14	Clear, calm									
PURGE DATE	10/15	WATER APPEARANCE / ODOR:									
START TIME	0952	Clear - brown -									
D TIME		COMMENTS:									
AMT PURGED	18	collected 8270									
SAMPLE DATE	10/15	allowed to reach before collecting									
SAMPLE TIME	1030	samples									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		2		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-53		GAUGE DATE: 10/15/19		TIME: 1220		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	DRY	1									
DTB (FEET)	33.91	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
D TIME		COMMENTS:									
AMT PURGED		No Samples - Dry									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD-QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/15/19		TIME: 1215		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	18.09	1	NO Samples							
DTB (FEET)		2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: Has slight odor								
PURGE DATE		COMMENTS: Has dedicated pump system for 8PH Recovery								
START TIME										
ID TIME										
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5		HCL			
8270		1 LITER AMBER			1		None			
8015D		250 ML AMBER			1		None			
METALS - TOTAL		250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1		HNO3			
CATIONS		125 ML PLASTIC			1		H2SO4			
ANIONS		125 ML PLASTIC			1		None			
8011 - EDB		40 ML VOA			1		Na2S2O3			
CYANIDE		500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD-QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OWSS		GAUGE DATE: 10/15/19		TIME: 1210		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	17.73	1									
DTB (FEET)	30.7	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: odor -									
START TIME											
END TIME		COMMENTS: Intas dedicated pump system - SPH Recovery									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

440  
ANNUAL/THIRD-QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/15/19		TIME: 1150		DUPLICATE: Y / N 50 ml		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	14.38	1	1337	7.52	14.1	2.97	1937	1.56	2.33	147.7	
DTB (FEET)	18.59	2	1339	7.52	14.1	2.98	1937	1.56	2.53	147.9	
DTB - DTW	4.21	3	1341	7.52	14.2	2.98	1937	1.56	2.38	146.7	
CAPACITY PER FOOT	0.74 - 4"	4	1343	7.51	14.2	2.98	1937	1.56	2.37	146.0	
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES	2	WATER APPEARANCE / ODOR: Clear - cloudy - no odor									
PURGE DATE		COMMENTS:									
START TIME											
ID TIME											
AMT PURGED	1.5	will allow to reba before collecting									
SAMPLE DATE	10/15/19	samples									
SAMPLE TIME	1345										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
DW-57		GAUGE DATE: 11/4/19		TIME: 1030		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	19.97	1	1056	7.44	14.7	1.95	1267.5	1.0	1.83	-17.9	
DTB (FEET)	28.1	2	1058	7.44	14.8	1.95	1267.5	1.0	1.82	-18.1	
DTB - DTW	8.13	3	1100	7.44	14.8	1.95	1267.5	1.0	1.81	-18.2	
CAPACITY PER FOOT	0.74 - 4"	4	1102	7.44	14.8	1.95	1267.5	1.0	1.81	-18.2	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	4	Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME	1035	clear - pink - brown									
END TIME	1045	COMMENTS:									
AMT PURGED	1.5	will allow to recharge -									
SAMPLE DATE	11/5/19										
SAMPLE TIME	1104										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-58		GAUGE DATE: 11/18/19		TIME: 10:50		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (mg/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	23.99	1	1045	7.28	14.7	1.95	1267.5	1.00	0.91	22.0	
DTB (FEET)	47.3	2	1047	7.28	14.6	1.95	1267.5	1.00	0.94	17.8	
DTB - DTW	23.31	3	1049	7.27	14.6	1.95	1267.5	1.00	0.93	16.5	
CAPACITY PER FOOT	0.74 - 4"	4	1051	7.27	14.6	1.95	1267.5	1.00	0.93	14.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	11	Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clear - cloudy - sheer									
END TIME	1049	COMMENTS:									
AMT PURGED	11										
SAMPLE DATE	11/18										
SAMPLE TIME	1055										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE		
8260B (3) / 8015D (2)			40 ML VOA			5			HCL		
8270			1 LITER AMBER			1			None		
8015D			250 ML AMBER			1			None		
METALS - TOTAL			250 ML PLASTIC			1			HNO3		
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1			HNO3		
CATIONS			125 ML PLASTIC			1			H2SO4		
ANIONS			125 ML PLASTIC			1			None		
8011 - EDB			40 ML VOA			1			Na2S2O3		
CYANIDE			500 ML			1			NaOH		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/15/19		TIME: 1230		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.11	1	1240	7.69	15.2	1148	7455	6.57	1.23	180.3	
DTB (FEET)	38.3	2	1242	7.69	15.2	1148	7462	6.57	1.23	179.7	
DTB - DTW	14.19	3	1244	7.69	15.3	1148	7462	6.57	1.22	179.3	
CAPACITY PER FOOT	0.74 - 4"	4	1246	7.68	15.3	1149	7468	6.58	1.21	178.8	
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze									
3 WELL VOLUMES	7										
PURGE DATE	10/15	WATER APPEARANCE / ODOR: clear - cloudy - pink - no odor									
START TIME	1235										
END TIME		COMMENTS:									
AMT PURGED	17										
SAMPLE DATE	10/15										
SAMPLE TIME	1250										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2) ✓		40 ML VOA		5		HCL					
8270 ✓		1 LITER AMBER		1		None					
8015D ✓		250 ML AMBER		1		None					
METALS - TOTAL ✓		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED ✓		125 ML PLASTIC		1		HNO3					
CATIONS ✓		125 ML PLASTIC		1		H2SO4					
ANIONS ✓		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
DW-601		GAUGE DATE: 10/4/19		TIME: 1014		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	17.94	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.63	1									
DTB (FEET)	32.0	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		Clear, calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		spH layer = 3.09									
END TIME		COMMENTS:									
AMT PURGED		No samples collected									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
0W-62		GAUGE DATE: 11/18/19		TIME: 1005		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	23.72	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	24.34	1									
DTB (FEET)	31.47	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: SpH layer = 0.62									
START TIME											
END TIME		COMMENTS: No Sample collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

DUP

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
OW-63		GAUGE DATE: 11/18/19		TIME: 0940		DUPLICATE: Y / N <input checked="" type="radio"/> Y <input type="radio"/> N		8011 EDB: Y <input checked="" type="radio"/> N		8270 ADD'L: Y <input checked="" type="radio"/> N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (mg/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.3	1	1345	7.35	14.7	1.72	1118	0.88	1.72	0.5	
DTB (FEET)	32.0	2	1347	7.35	14.8	1.72	1118	0.88	1.63	0.3	
DTB - DTW	11.7	3	1349	7.35	14.8	1.73	11245	0.88	1.62	-3.9	
CAPACITY PER FOOT	0.74 - 4"	4	1351	7.36	14.6	1.73	11245	0.88	1.58	-4.1	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	26	Clear - calm									
PURGE DATE	11/18	WATER APPEARANCE / ODOR:									
START TIME	0945	clear - cloudy									
END TIME	1000	COMMENTS:									
AMT PURGED	23	Cost suction - will allow to recharge									
SAMPLE DATE	11/18										
SAMPLE TIME	1355										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
0W-64		GAUGE DATE: 11/18/19		TIME: 0905		DUPLICATE: Y / N <i>Sm/Con</i>		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (mg/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.4	1	1320	8.19	15.7	2.10	13585	1.08	4.93	218.2	
DTB (FEET)	27.63	2	1322	8.18	15.5	2.10	1365	1.08	4.62	218.0	
DTB - DTW	19.23	3	1324	8.18	15.4	2.10	1365	1.08	4.41	216.4	
CAPACITY PER FOOT	0.74 - 4"	4	1326	8.17	15.4	2.11	1365	1.08	4.30	215.7	
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES	43	WATER APPEARANCE / ODOR: Clear - gray - cloudy									
PURGE DATE	11/18	COMMENTS: Lost suction @ 26 gals - will allow to recharge									
START TIME	0910										
END TIME	0930										
AMT PURGED	26										
SAMPLE DATE	11/18										
SAMPLE TIME	1330										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE		
8260B (3) / 8015D (2)			40 ML VOA			5			HCL		
8270			1 LITER AMBER			1			None		
8015D			250 ML AMBER			1			None		
METALS - TOTAL			250 ML PLASTIC			1			HNO3		
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1			HNO3		
CATIONS			125 ML PLASTIC			1			H2SO4		
ANIONS			125 ML PLASTIC			1			None		
8011 - EDB			40 ML VOA			1			Na2S2O3		
CYANIDE			500 ML			1			NaOH		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
06-65		GAUGE DATE: 10/4/19		TIME: 1029		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	22.3	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	30.85	1									
DTB (FEET)	40.0	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: SPT Layer = 8.55									
START TIME											
END TIME		COMMENTS: No Sample collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S203			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
NAUPIS-1		GAUGE DATE: 10-21-19		TIME: 0855		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	7.66	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.80	1									
DTB (FEET)	13.74	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: No Samples collected.									
AMT PURGED		Gauged by Tracy Payne / Disorbo									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
NAPSIS-2		GAUGE DATE: 10/21/19		TIME: 1005		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.4	1	1050	7.55	22.3	1.81	1176.5	.92	.78	2.5	
DTB (FEET)	13.61	2	1052	7.55	22.2	1.81	1176.5	.92	.68	1.4	
DTB - DTW	4.21	3	1054	7.54	22.0	1.81	1176.5	.92	.65	4.6	
CAPACITY PER FOOT	0.74 - 4"	4	1054	7.54	21.9	1.82	1176.5	.92	.63	-5.3	
	(0.163 - 2")	WEATHER CONDITIONS: Clear, breezy									
3 WELL VOLUMES	2	WATER APPEARANCE / ODOR: Clear, yew tint, slight odor									
PURGE DATE	10/21										
START TIME	1012										
ID TIME		COMMENTS:									
AMT PURGED	2										
SAMPLE DATE	10/21										
SAMPLE TIME	1100										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE		
8260B (3) / 8015D (2)			40 ML VOA			5			HCL		
8270 18310			1 LITER AMBER			1			None		
8015D			250 ML AMBER			1			None		
METALS - TOTAL			250 ML PLASTIC			1			HNO3		
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1			HNO3		
CATIONS			125 ML PLASTIC			1			H2SO4		
ANIONS			125 ML PLASTIC			1			None		
8011 - EDB			40 ML VOA			1			Na2S2O3		
CYANIDE			500 ML			1			NaOH		
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

LHP  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/21/19		TIME: 1009		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	10.02	1	1152	8.06	18.5	3.10	2015	1.62	2.14	163.2
DTB (FEET)	30.42	2	1154	8.06	18.6	3.09	2008.5	1.62	2.12	153.9
DTB - DTW	20.4	3	1156	8.06	18.5	3.09	2008.5	1.62	2.09	152.5
CAPACITY PER FOOT	0.74 - 4"	4	1158	8.05	18.5	3.09	2008.5	1.62	2.08	151.7
	0.163 - 2"	WEATHER CONDITIONS: Clear breeze								
3 WELL VOLUMES	10	WATER APPEARANCE / ODOR: Clear, no taste								
PURGE DATE	10/21									
START TIME	1030									
END TIME		COMMENTS:								
AMT PURGED	5									
SAMPLE DATE	10/21									
SAMPLE TIME	1201									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/21/19		TIME: 1007		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.16	1	1120	7.42	23.3	2.38	1547	1.23	2.65	82.6	
DTB (FEET)	23.20	2	1122	7.41	22.9	2.39	1553.5	1.23	2.66	82.1	
DTB - DTW	14.04	3	1124	7.41	22.7	2.39	1553.5	1.23	2.65	81.7	
CAPACITY PER FOOT	0.74 - 4"	4	1126	7.40	22.6	2.39	1553.5	1.23	2.64	81.5	
C 0.163 - 2"		WEATHER CONDITIONS:									
3 WELL VOLUMES		7									
PURGE DATE		10/21									
START TIME		1018									
END TIME											
AMT PURGED		7									
SAMPLE DATE											
SAMPLE TIME		1130									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10-21-19		TIME: 0919		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	20.61	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.83	1									
DTB (FEET)	26.44	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: Caused by Tracy Pague / Disorbo									
AMT PURGED											
SAMPLE DATE		No Samples collected									
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/19/19		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	DRY	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/19/19		TIME:			DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	DRY	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019Cranell  
801  
Dup

SAMPLE ID		TEST PARAMETERS									
OAPIS-1		GAUGE DATE: 10/21/19		TIME: 1215		DUPLICATE: Y N		8011 EDB Y N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	11.44	1	1302	7.47	14.9	655	4261	3.69	4.94	70.3	
DTB (FEET)	26.0	2	1304	7.43	14.6	656	4205	3.61	5.00	65.7	
DTB - DTW	14.56	3	1304	7.47	14.5	657	4206	3.62	5.00	63.9	
CAPACITY PER FOOT	0.74 - 4"	4	1308	7.42	14.4	658	4277	3.62	5.00	62.8	
0.163 - 2"		WEATHER CONDITIONS: Clear - breezy									
3 WELL VOLUMES		7									
PURGE DATE		10/21									
START TIME		1217									
ID TIME		COMMENTS:									
AMT PURGED		7									
SAMPLE DATE		10/21									
SAMPLE TIME		1310									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/22/19		TIME: 0816		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	20.76	1	0902	8.22	11.1	7.78	505.7	4.32	3.29	226.8	
DTB (FEET)	50.00	2	0904	8.20	11.2	7.79	506.8	4.33	3.51	227.9	
DTB - DTW	29.24	3	0908	8.20	11.2	7.79	506.5	4.33	3.37	225.1	
CAPACITY PER FOOT	0.74 - 4"	4	0908	8.19	11.1	7.6	501.0	4.33	3.28	224	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	14	Clear, calm									
PURGE DATE	10/22	WATER APPEARANCE / ODOR:									
START TIME	0820	Clear -									
END TIME		COMMENTS:									
AMT PURGED	141	Clear									
SAMPLE DATE	10/22										
SAMPLE TIME	0910										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/22/19		TIME:			DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED		Not able to enter area - High H <sub>2</sub> S levels.									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO <sub>3</sub>			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO <sub>3</sub>			
CATIONS		125 ML PLASTIC			1			H <sub>2</sub> SO <sub>4</sub>			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/16/19		TIME: 1410		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)		1								
DTB (FEET)	5832	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR: DRY								
START TIME										
ID TIME		COMMENTS:								
AMT PURGED		No Samples Collected								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5		HCL			
8270		1 LITER AMBER			1		None			
8015D		250 ML AMBER			1		None			
METALS - TOTAL		250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1		HNO3			
CATIONS		125 ML PLASTIC			1		H2SO4			
ANIONS		125 ML PLASTIC			1		None			
8011 - EDB		40 ML VOA			1		Na2S2O3			
CYANIDE		500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 201949.5  
58.88

SAMPLE ID		TEST PARAMETERS									
BW 4B		GAUGE DATE: 10/16/19		TIME: 1418		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	47.5	1									
DTB (FEET)	63.5	2									
DTB - DTW	16.0	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	8	Clear, slight breeze									
PURGE DATE	10/16	WATER APPEARANCE / ODOR:									
START TIME	1422	Clear									
ID TIME		COMMENTS:									
AMT PURGED		pump set @ 50'.									
SAMPLE DATE		lost suction @ 1.5 gals - allow to									
SAMPLE TIME		reha - checked 3 more times - not									
		enough water to collect samples									
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
BWSA		GAUGE DATE: 10/16/19		TIME: 1250 1315		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	23.25	1									
DTB (FEET)	23.3	2									
DTB - DTW	0.05	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, slight breeze									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
ID TIME		COMMENTS:									
AMT PURGED		No Samples - Not enough water									
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD-QUARTER 2019

2X

EPB

SAMPLE ID		TEST PARAMETERS									
BW-SB		1252		TIME: <del>1317</del> 1307		DUPLICATE: Y / N same		8011 EDB: Y / N 0		8270 ADD'L: Y / N 0	
GAUGE DATE:	10/16/19										
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	10.27	1	1329	8.95	13.0	2.48	1618.5	1.29	2.5	202.2	
DTB (FEET)	61.45	2	1331	8.77	13.0	2.49	1618.5	1.29	2.39	200.3	
DTB - DTW	51.18	3	1333	8.78	12.9	2.49	1618.5	1.29	2.30	199.7	
CAPACITY PER FOOT	0.74 - 4"	4	1335	8.79	12.9	2.48	1612	1.29	2.26	197.3	
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze									
3 WELL VOLUMES	2510										
PURGE DATE	10/16	WATER APPEARANCE / ODOR: Clear no odor									
START TIME	1300										
ID TIME	1300	COMMENTS: allowed to rechg - lost suction @									
AMT PURGED		11 gal.									
SAMPLE DATE	10/16/19										
SAMPLE TIME	1338										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		2		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019Duff  
CPB

SAMPLE ID		TEST PARAMETERS									
BW-SC		TIME: 1254		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
GAUGE DATE: 10/16/19		TIME: 1318		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	3.5	1	1355	7.99	12.5	5.34	3471	2.9	1.66	91.4	
DTB (FEET)	76.35	2	1357	7.98	12.6	5.33	3464	2.89	1.39	93.8	
DTB - DTW	72.85	3	1359	7.97	12.6	5.33	3464.6	2.89	1.35	916.8	
CAPACITY PER FOOT	0.74 - 4"	4	1401	7.96	12.6	5.33	3464.5	2.89	1.22	70.2	
	0.163 - 2"	WEATHER CONDITIONS: Clear, slight breeze									
3 WELL VOLUMES	35	WATER APPEARANCE / ODOR: Clear, no odor - pink - clear									
PURGE DATE	10/16										
START TIME	1344										
ID TIME		COMMENTS:									
AMT PURGED	32										
SAMPLE DATE	10/16										
SAMPLE TIME	1404										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 11/19/19		TIME: 0940		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	455	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Overcast / calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: yew w/ green tint - partially bloating									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	11/19/19										
SAMPLE TIME	0958										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 11/19/19		TIME: 1005		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	3.44	1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES		overcast / calm									
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME		clear - black									
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	11/19/19										
SAMPLE TIME	1010										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
PW-3		GAUGE DATE: 11/20/19		TIME: 0900		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Cloudy - breezy - Intermittent Rain shower									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: clear									
START TIME											
END TIME		COMMENTS: Let water run for 10 mins before sampling									
AMT PURGED											
SAMPLE DATE	11/20/19										
SAMPLE TIME	0915										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270 / 8310		3 LITER AMBER			3			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

DWP

SAMPLE ID		TEST PARAMETERS									
PW-4		GAUGE DATE: 11/20/19		TIME: 1005		DUPLICATE: <input checked="" type="radio"/> Y / <input type="radio"/> N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: cloudy, slight breeze									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: clean									
PURGE DATE		COMMENTS: al									
START TIME											
END TIME											
AMT PURGED											
SAMPLE DATE	11/20/19										
SAMPLE TIME	1020										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 11/24/19		TIME: 0740		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc, calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	11/24/19										
SAMPLE TIME	0745										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 11/19/19		TIME: 1030		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	5.14	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	5.45	1									
DTB (FEET)	17.42	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: plc - calm									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.31									
START TIME											
END TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

Dup

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 11/19/19		TIME: 1035		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (mg/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	7.14	1	1302	7.55	14.3	8.16	5310.5	4.56	3.63	155.3
DTB (FEET)	20.48	2	1304	7.55	14.3	8.17	5310.5	4.56	3.57	149.2
DTB - DTW	13.34	3	1306	7.55	14.3	8.17	5310.5	4.56	3.54	147.1
CAPACITY PER FOOT	0.74 - 4"	4	1308	7.55	14.3	8.18	5317	4.56	3.52	145.0
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	30	plc, calm								
PURGE DATE	11/19	WATER APPEARANCE / ODOR:								
START TIME	1040	clear - pink								
END TIME		COMMENTS:								
AMT PURGED	19	will allow to recharge								
SAMPLE DATE	11/19									
SAMPLE TIME	1310									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
MKT 3		GAUGE DATE: 10/30		TIME: 1125		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)	6.7	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.0	1									
DTB (FEET)	18.45	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: spit layer = 1.3									
PURGE DATE		COMMENTS: No Samples Collected									
START TIME											
ID TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

Dup / EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/30/19		TIME: 1105		DUPLICATE: Y / N <i>SpCond</i>		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	8.93	1	1420	7.41	10.8	2.35	1527.5	1.22	2.60	41.6
DTB (FEET)	22.15	2	1422	7.40	10.7	2.35	1527.5	1.22	2.50	41.4
DTB - DTW	13.22	3	1424	7.39	10.5	2.35	1527.5	1.22	2.50	40.9
CAPACITY PER FOOT	0.74 - 4"	4	1426	7.39	10.4	2.35	1527.5	1.22	2.49	40.1
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES	30									
PURGE DATE	10/30	WATER APPEARANCE / ODOR: Clear - gray - murky								
START TIME										
END TIME	1120	COMMENTS: well allow to recharge								
AMT PURGED	17.5									
SAMPLE DATE	10/30									
SAMPLE TIME	1430									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature: <i>[Signature]</i>										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/30/19		TIME: 1049		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	13.9	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	14.2	1								
DTB (FEET)	17.75	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH Layer = 0.3								
PURGE DATE		COMMENTS: No Samples collected.								
START TIME										
ID TIME										
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/30/19		TIME: 1051		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	16.8	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	17.91	1								
DTB (FEET)	23.77	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer = 1.1								
PURGE DATE										
START TIME										
ID TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/30		TIME: 1054		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	12.2	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.39	1									
DTB (FEET)	17.62	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, breezy									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR: 5 pH layer = 1.19									
START TIME											
ID TIME		COMMENTS: No Samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/30/19		TIME: 1058		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	13.54	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	13.99	1								
DTB (FEET)	21.98	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES		WATER APPEARANCE / ODOR: SPH layer = 0.45								
PURGE DATE		COMMENTS: No Samples collected								
START TIME										
END TIME										
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
Gauge Date: 11/18/19		TIME: 1120		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (mg/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	1397	1	1442	7.4	16.1	2.02	1313	1.03	1.46	34.0
DTB (FEET)	22.7	2	1444	7.4	16.1	2.02	1313	1.03	1.45	31.7
DTB - DTW	8.73	3	1446	7.4	16.1	2.02	1313	1.03	1.45	30.8
CAPACITY PER FOOT	0.74 - 4"	4	1448	7.4	16.1	2.02	1313	1.03	1.46	29.8
3 WELL VOLUMES	19	WEATHER CONDITIONS: Clear, calm								
PURGE DATE		WATER APPEARANCE / ODOR: Clear - gray								
START TIME										
END TIME	1145	COMMENTS: will allow to recharge								
AMT PURGED	15									
SAMPLE DATE	11/18									
SAMPLE TIME	1450									
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA		5		HCL			
8270			1 LITER AMBER		1		None			
8015D			250 ML AMBER		1		None			
METALS - TOTAL			250 ML PLASTIC		1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3			
CATIONS			125 ML PLASTIC		1		H2SO4			
ANIONS			125 ML PLASTIC		1		None			
8011 - EDB			40 ML VOA		1		Na2S2O3			
CYANIDE			500 ML		1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/30/19		TIME: 1300		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.28	1	1515	7.18	14.0	4.48	2912	2.40	1.43	1.2	
DTB (FEET)	15.99	2	1517	7.20	13.9	4.48	2912	2.40	1.44	1.1	
DTB - DTW	8.71	3	1519	7.19	13.8	4.48	2912	2.40	1.43	-0.7	
CAPACITY PER FOOT	0.74 - 4"	4	1521	7.18	13.6	4.48	2912	2.40	1.40	-1.2	
	0.163 - 2"	WEATHER CONDITIONS: clear, breezy									
3 WELL VOLUMES	20										
PURGE DATE	10/30	WATER APPEARANCE / ODOR: clear - pink-brown									
START TIME	1305										
END TIME		COMMENTS: will allow to recharge									
AMT PURGED	6.75										
SAMPLE DATE	10/30										
SAMPLE TIME	1525										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/30/19		TIME: 1135		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.06	1	1445	7.64	12.2	4.36	2834	2.33	1.55	15.2	
DTB (FEET)	18.14	2	1447	7.62	12.1	4.36	2834	2.34	1.64	13.0	
DTB - DTW	11.08	3	1449	7.61	11.8	4.36	2840.6	2.34	1.64	10.6	
CAPACITY PER FOOT	0.74 - 4"	4	1451	7.61	11.6	4.37	2840.6	2.34	1.66	8.9	
3 WELL VOLUMES	2.5	WEATHER CONDITIONS: clear, breeze									
PURGE DATE	10/30	WATER APPEARANCE / ODOR: clear - green									
START TIME	1138	COMMENTS: will allow to recover									
JD TIME											
AMT PURGED	2.2										
SAMPLE DATE	10/30										
SAMPLE TIME	1455										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

44A  
ANNUAL/THIRD-QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	18.35	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	18.47	1								
DTB (FEET)	25.60	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: plc, breezy								
PURGE DATE		WATER APPEARANCE / ODOR: SPH layer = 0.12								
START TIME										
END TIME		COMMENTS:								
AMT PURGED		No Samples collected.								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/28/19		TIME: 1030		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	12.95	1	1010	7.26	13.9	2.41	1566.5	1.25	0.83	-7.9	
DTB (FEET)	21.25	2	1012	7.25	13.8	2.42	1573	1.25	0.84	-4.4	
DTB - DTW	8.3	3	1014	7.24	13.9	2.41	1566.5	1.25	0.85	-7.5	
CAPACITY PER FOOT	0.74 - 4"	4	1016	7.24	13.8	2.42	1573	1.25	0.85	-8.4	
3 WELL VOLUMES	18.5 B18	WEATHER CONDITIONS: Cloudy, breezy									
PURGE DATE	1035	WATER APPEARANCE / ODOR: cloudy-oily-odor-gray-sheen									
START TIME											
END TIME		COMMENTS: well allow to recharge									
AMT PURGED	14.25										
SAMPLE DATE	10/29/19										
SAMPLE TIME	1018										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD-QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME: 1020		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	6.02	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	6.39	1								
DTB (FEET)	17.46	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: cloudy, breezy								
PURGE DATE		WATER APPEARANCE / ODOR: No Samples SPH = 0.37								
START TIME										
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/30/19		TIME: 1330		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	12.65	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	12.7	1								
DTB (FEET)	19.48	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR: SpH layer = 0.05								
START TIME										
ND TIME		COMMENTS:								
AMT PURGED		No Samples collected.								
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/30/19		TIME: 1340		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.89	1									
DTB (FEET)	14.10	2	Did not need data								
DTB - DTW	4.21	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy									
3 WELL VOLUMES	2										
PURGE DATE	1343	WATER APPEARANCE / ODOR: clear, no odor									
START TIME											
END TIME		COMMENTS: will allow to recharge									
AMT PURGED	1.5										
SAMPLE DATE	10/30										
SAMPLE TIME	1548										
Analysis Request			CONTAINER TYPE			NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA			5		HCL			
8270			1 LITER AMBER			1		None			
8015D			250 ML AMBER			1		None			
METALS - TOTAL			250 ML PLASTIC			1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC			1		HNO3			
CATIONS			125 ML PLASTIC			1		H2SO4			
ANIONS			125 ML PLASTIC			1		None			
8011 - EDB			40 ML VOA			1		Na2S2O3			
CYANIDE			500 ML			1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

449  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME: 0855		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	9.00	1	0832	7.50	14.0	2.11	1371.5	1.09	2.29	174.0
DTB (FEET)	24.11	2	0834	7.49	14.1	2.11	1371.5	1.09	2.32	171.7
DTB - DTW	15.11	3	0836	7.49	14.0	2.11	1371.5	1.09	2.28	170.1
CAPACITY PER FOOT	0.74 - 4"	4	0838	7.49	14.0	2.11	1371.5	1.09	2.27	169.9
	0.163 - 2"	WEATHER CONDITIONS: Cloudy - snow flurries - breezy								
3 WELL VOLUMES	17	WATER APPEARANCE / ODOR: clear - cloudy - brown - gray muck								
PURGE DATE	10/28	COMMENTS: will allow to recharge								
START TIME	0900									
END TIME	0910									
AMT PURGED	2.5									
SAMPLE DATE	10/29									
SAMPLE TIME	0840									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME: 1337		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	7.79	1	1052	7.50	13.0	1.89	1228.5	0.97	1.49	73.6
DTB (FEET)	25.38	2	1054	7.50	12.9	1.89	1228.5	0.97	1.48	72.1
DTB - DTW	17.59	3	1056	7.50	12.8	1.89	1228.5	0.97	1.47	69.8
CAPACITY PER FOOT	0.74 - 4"	4	1058	7.50	12.8	1.89	1228.5	0.97	1.46	67.3
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	9	Clean - breezy								
PURGE DATE	1339	WATER APPEARANCE / ODOR:								
START TIME		Clean - pink - brown - muddy								
END TIME		COMMENTS:								
AMT PURGED	3.50	will allow to recharge								
SAMPLE DATE	10/29									
SAMPLE TIME	1100									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S203				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

442  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME: 0915		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	10.91	1	0904	7.20	14.9	2.05	1325	1.05	1.15	37.4
DTB (FEET)	17.47	2	0904	7.36	14.8	2.05	1339	1.06	1.15	24.3
DTB - DTW	6.56	3	0908	7.33	14.5	2.03	1339	1.06	1.13	22.9
CAPACITY PER FOOT	0.74 - 4"	4	0910	7.28	14.5	2.06	1339	1.06	1.10	13.9
3 WELL VOLUMES	3	WEATHER CONDITIONS: Cloudy, snow flurries, breezy								
PURGE DATE	10/28	WATER APPEARANCE / ODOR: Clear - pink - brown murky - has sheen + odor								
START TIME	0918	COMMENTS: will allow to recharge								
END TIME										
AMT PURGED	3									
SAMPLE DATE	10/29									
SAMPLE TIME	0912									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 20198270/8310  
1-3/4

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/31/19 11/4/19		TIME: 1400		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	7.68	1									
DTB (FEET)	<del>9.83</del> 8.83										
DTB - DTW	2.21	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	85	clear, breezy									
PURGE DATE	11/4	WATER APPEARANCE / ODOR:									
START TIME		gray - odor									
END TIME		COMMENTS:									
AMT PURGED	0.75	will allow to recharge									
SAMPLE DATE	11/5/19	Could only get 1.3/4 of 8270/8310									
SAMPLE TIME	0900	Not enough water to collect rest of suite									
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 2019

2L

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 11/14/19 <del>10/30/19</del>		TIME: 1350		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.32	1									
DTB (FEET)	9.89	2		No Data Collected							
DTB - DTW	1.57	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: clear, breezy									
3 WELL VOLUMES	3	WATER APPEARANCE / ODOR: gray - odor									
PURGE DATE	10/30/19	COMMENTS: will allow to recharge									
START TIME	1353	Could only get 2 liter (Amber)									
END TIME		not enough wtr to get full suite									
AMT PURGED	05										
SAMPLE DATE	11/5/19										
SAMPLE TIME	0930										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/24/19		TIME: 1330		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	25.4	1	1408	7.32	12.5	2.01	1306.5	1.03	1.98	50.4
DTB (FEET)	35.25	2	1410	7.34	12.6	2.01	1306.5	1.03	1.94	46.5
DTB - DTW	9.85	3	1412	7.34	12.6	2.01	1306.5	1.03	1.90	46
CAPACITY PER FOOT	0.74 - 4"	4	1414	7.34	12.6	2.01	1306.5	1.03	1.88	39.9
	0.163 - 2"	WEATHER CONDITIONS: Clear, windy								
3 WELL VOLUMES	5									
PURGE DATE		WATER APPEARANCE / ODOR: Clear - pink - brown								
START TIME										
END TIME		COMMENTS:								
AMT PURGED	2.5									
SAMPLE DATE	10/24									
SAMPLE TIME	1415									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/28/19		TIME: 1000		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	13.95	1								
DTB (FEET)	20.36	2	Did not collect data - water							
DTB - DTW	6.41	3	has sheen & oily film							
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	3	Cloudy - breezy								
PURGE DATE	10/28	WATER APPEARANCE / ODOR:								
START TIME	1005	Clean - Cloudy - odor - sheen								
END TIME		COMMENTS:								
AMT PURGED	3	will allow to recharge before collecting samples								
SAMPLE DATE	10/29									
SAMPLE TIME	0940									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

ERB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1314		DUPLICATE: Y / N		8011 EDB <input checked="" type="radio"/> Y <input type="radio"/> N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	2321	1	0952	7.47	12.9	3.55	2307.5	1.88	232	190.7
DTB (FEET)	30.47	2	0954	7.44	12.9	3.55	2307.5	1.88	231	190.9
DTB - DTW	726	3	0956	7.44	13.0	3.54	2301	1.87	228	190.8
CAPACITY PER FOOT	0.74 - 4"	4	0958	7.44	13.0	3.54	2301	1.87	227	189.4
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	4	Clear, breeze								
PURGE DATE	10/22	WATER APPEARANCE / ODOR:								
START TIME	1318	Clear - pink - brown								
END TIME	1330	COMMENTS:								
AMT PURGED	2.5	will allow to rechg before collecting samples								
SAMPLE DATE	10/23									
SAMPLE TIME	1001									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1334		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	12.72	1	1026	727	12.8	5.49	3568.5	2.98	2.68	185.7
DTB (FEET)	19.43	2	1028	726	12.8	5.49	3568.5	2.98	2.68	185.1
DTB - DTW	5.71	3	1030	726	12.8	5.49	3568.5	2.98	2.67	180.8
CAPACITY PER FOOT	0.74 - 4"	4	1032	726	12.8	5.49	3568.0	2.98	2.66	179.1
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
PURGE DATE		WATER APPEARANCE / ODOR: Clear - pink - brown - murky								
START TIME	1334	COMMENTS: well allow to recharge before collection								
END TIME		Samples								
AMT PURGED	1.25									
SAMPLE DATE	10/23									
SAMPLE TIME	1036									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1310		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)	8.63	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	9.34	1								
DTB (FEET)	17.15	2								
DTB - DTW		3								
CAPACITY PER FOOT	0.74 - 4"	4								
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES										
PURGE DATE		WATER APPEARANCE / ODOR:								
		SPH layer = 0.73								
START TIME	1314									
END TIME		COMMENTS: No Samples Collected								
AMT PURGED										
SAMPLE DATE										
SAMPLE TIME										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
Gauge Date: 10/22/19		TIME: 1300		DUPLICATE: Y / N <i>50C and</i>		8011 EDB: <input checked="" type="radio"/> Y / <input type="radio"/> N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	6.14	1	0928	7.27	17.0	10.65	6922.5	6.06	2.50	198.9
DTB (FEET)	14.72	2	0930	7.27	17.0	10.65	6922.5	6.06	2.51	199.7
DTB - DTW	8.58	3	0932	7.28	17.0	10.65	6922.5	6.06	2.49	200.1
CAPACITY PER FOOT	0.74 - 4"	4	0934	7.28	16.9	10.50	6929.0	6.07	2.49	200.2
0.163 - 2"		WEATHER CONDITIONS: Clear, slight breeze								
3 WELL VOLUMES	4	WATER APPEARANCE / ODOR: clear - yw tint								
PURGE DATE	10/21									
START TIME	1302									
END TIME		COMMENTS: will allow to recharge before sampling								
AMT PURGED	4									
SAMPLE DATE	10/23									
SAMPLE TIME	0938									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL THIRD QUARTER 2019

Dup

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1050		DUPLICATE: Y N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	6.38	1	1053	7.79	18.0	2.99	1943.5	1.57	2.08	194.5
DTB (FEET)	16.16	2	1055	7.78	18.0	2.99	1943.60	1.66	1.96	194.3
DTB - DTW	9.78	3	1057	7.78	18.1	2.99	1943.5	1.56	1.85	194.2
CAPACITY PER FOOT	0.74 - 4"	4	1059	7.77	18.0	2.99	1943.5	1.56	1.77	194.3
3 WELL VOLUMES	5	WEATHER CONDITIONS: Clear, calm								
PURGE DATE	10/22	WATER APPEARANCE / ODOR: clear, cloudy - ylw tint								
START TIME	1052									
END TIME		COMMENTS:								
AMT PURGED	5									
SAMPLE DATE	10/22									
SAMPLE TIME	1100									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

448  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1005		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	637	1	1027	7.50	15.5	4.74	3068	2.54	2.76	209.5
DTB (FEET)	22.84	2	1029	7.48	15.7	4.72	3068	2.54	2.75	209.2
DTB - DTW	16.52	3	1031	7.48	15.7	4.72	3068	2.54	2.75	208.8
CAPACITY PER FOOT	0.74 - 4"	4	1033	7.47	15.6	4.72	3068	2.54	2.77	208.6
3 WELL VOLUMES	8	WEATHER CONDITIONS: Clear, calm								
PURGE DATE	10/22	WATER APPEARANCE / ODOR: Clear - cloudy								
START TIME	1007	COMMENTS:								
END TIME	1020									
AMT PURGED	8									
SAMPLE DATE	10/22									
SAMPLE TIME	1035									
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA		5		HCL			
8270			1 LITER AMBER		1		None			
8015D			250 ML AMBER		1		None			
METALS - TOTAL			250 ML PLASTIC		1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3			
CATIONS			125 ML PLASTIC		1		H2SO4			
ANIONS			125 ML PLASTIC		1		None			
8011 - EDB			40 ML VOA		1		Na2S2O3			
CYANIDE			500 ML		1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

Dup EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 0950		DUPLICATE: Y / N		8011 EDB Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	15.88	1	0840	7.82	17.3	3.66	2379	1.94	4.41	192.5
DTB (FEET)	23.20	2	0842	7.80	17.3	3.66	2379	1.94	4.29	191.2
DTB - DTW	17.38	3	0844	7.76	17.3	3.66	2386.5	1.94	4.26	190.3
CAPACITY PER FOOT	0.74 - 4"	4	0846	7.76	17.1	3.67	2385.5	1.95	4.25	189.4
0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	4	Clear, calm								
PURGE DATE	10/22	WATER APPEARANCE / ODOR:								
START TIME	0952	Clear, pink, brown,								
END TIME		COMMENTS:								
AMT PURGED	2.5	will allow to recharge								
SAMPLE DATE	10/23/19									
SAMPLE TIME	0850									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ERB

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/22/19		TIME: 1341		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	8.64	1	1400	7.39	17.9	3.31	251.5	1.74	1.68	100.6
DTB (FEET)	22.81	2	1402	7.38	18.0	3.31	251.5	1.74	1.63	101.3
DTB - DTW	14.17	3	1404	7.37	18.0	3.30	214.5	1.74	1.63	102.3
CAPACITY PER FOOT	0.74 - 4"	4	1404	7.37	18.0	3.31	215.5	1.74	1.63	102.9
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, slight breeze								
PURGE DATE	1343	WATER APPEARANCE / ODOR: Clear - pink - clear								
START TIME		COMMENTS:								
END TIME										
AMT PURGED	7									
SAMPLE DATE	10/22									
SAMPLE TIME	1410									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

ZPB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/23/19		TIME: 1230		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	14.01	1	1245	8.14	14.5	277	1800.50	1.44	4.00	201.4
DTB (FEET)	27.75	2	1247	8.13	14.6	276	1794	1.44	3.91	201.3
DTB - DTW	13.74	3	1249	8.13	14.6	276	1794	1.44	3.81	201.2
CAPACITY PER FOOT	0.74 - 4"	4	1251	8.13	14.7	276	1794	1.44	3.73	201.2
3 WELL VOLUMES	7	WEATHER CONDITIONS: Clear, Calm								
PURGE DATE	10/23	WATER APPEARANCE / ODOR: Clear, Cloudy								
START TIME	1233									
END TIME		COMMENTS:								
AMT PURGED	7									
SAMPLE DATE	10/23									
SAMPLE TIME	1255									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

EDB

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/24/19		TIME: 1305		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	22.5	1	1310	7.67	12.6	1.76	1157	0.91	1.46	208
DTB (FEET)	33.2	2	1312	7.66	12.6	1.78	1157	.91	1.43	207.7
DTB - DTW	10.7	3	1314	7.66	12.5	1.72	1157	.91	1.43	206.5
CAPACITY PER FOOT	0.74 - 4"	4	1316	7.66	12.6	1.78	1157	.91	1.42	206
3 WELL VOLUMES		WEATHER CONDITIONS:								
5		Clear, windy								
PURGE DATE		WATER APPEARANCE / ODOR:								
10/24		Clear - cloudy								
START TIME										
1307										
END TIME		COMMENTS:								
AMT PURGED										
5										
SAMPLE DATE										
10/24										
SAMPLE TIME										
1318										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

ERB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/29/19		TIME: 1230		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	18.23	1	1240	7.74	12.5	2.72	1768	1.42	5.10	168.7
DTB (FEET)	27.68	2	1242	7.74	12.4	2.72	1768	1.42	4.98	168.6
DTB - DTW	9.65	3	1244	7.73	12.3	2.73	1774.5	1.42	4.93	168.4
CAPACITY PER FOOT	0.74 - 4"	4	1246	7.73	12.2	2.7	1774.5	1.42	4.89	168.3
	0.163 - 2"	WEATHER CONDITIONS:								
3 WELL VOLUMES	5	Clear, windy								
PURGE DATE		WATER APPEARANCE / ODOR:								
START TIME		clear								
JD TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	10/29									
SAMPLE TIME	1250									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

Dup / EDB

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/28/19		TIME: 1352		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	8.42	1	1135	7.39	15.5	1.98	1287	1.01	1.07	12.5	
DTB (FEET)	16.45	2	1137	7.39	15.7	1.98	1287	1.01	1.11	13.7	
DTB - DTW	8.03	3	1139	7.39	15.9	1.98	1287	1.01	1.11	14.1	
CAPACITY PER FOOT	0.74 - 4"	4	1141	7.39	15.7	1.98	1287	1.02	1.11	14.9	
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES	4	Clear, breezy.									
PURGE DATE	1355	WATER APPEARANCE / ODOR:									
START TIME		clear - pink - grey - brown									
END TIME		COMMENTS:									
AMT PURGED	4 gals	will allow to recharge									
SAMPLE DATE	10/29										
SAMPLE TIME	1145										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/28/19		TIME:			DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)		1									
DTB (FEET)		2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS:									
3 WELL VOLUMES											
PURGE DATE		WATER APPEARANCE / ODOR:									
START TIME											
END TIME		COMMENTS: Unable to gauge or sample - Well still covered up (Asphalt)									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S2O3			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/28/19		TIME: 1325		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	9.3	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.33	1									
DTB (FEET)	24.60	2									
DTB - DTW		3									
CAPACITY PER FOOT	0.74 - 4"	4									
3 WELL VOLUMES	0.163 - 2"	WEATHER CONDITIONS: clear - breezy									
PURGE DATE	10/28	WATER APPEARANCE / ODOR: SPH Laya = .03									
START TIME											
END TIME		COMMENTS: No samples collected									
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

4th  
ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 12/3/19		TIME: 1113		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.5	1	1350	7.57	15.4	2.43	1579.5	1.26	1.83	241.0	
DTB (FEET)	20.29	2	1352	7.57	15.2	2.43	1579.5	1.26	1.68	240.6	
DTB - DTW	20.79	3	1354	7.53	15.2	2.44	1580	1.26	1.65	240.1	
CAPACITY PER FOOT	0.74 - 4"	4	1356	7.50	15.1	2.44	1580	1.26	1.66	239.8	
	0.163 - 2"	WEATHER CONDITIONS: Clear, calm									
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR: clear - pink - muddy									
PURGE DATE	12/3	COMMENTS: well allow to recharge									
START TIME	1115										
END TIME	1125										
AMT PURGED	4.5										
SAMPLE DATE											
SAMPLE TIME	1400										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270 / 8310		1 LITER AMBER		3		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

Duplicate

SAMPLE ID		TEST PARAMETERS									
MKT-39		GAUGE DATE: 11/4/19		TIME: 1110		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N	
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	9.59	1	0906	7.03	16.6	25.62	16653	15.68	1.18	-17.2	
DTB (FEET)	15.20	2	0908	7.02	16.6	25.65	166725	15.70	1.26	-17.9	
DTB - DTW	5.61	3	0908	7.02	16.4	25.65	166725	15.70	1.26	-18.1	
CAPACITY PER FOOT	0.74 - 4"	4	0908	7.02	16.4	25.65	166725	15.70	1.24	-20.2	
	0.163 - 2"	WEATHER CONDITIONS: Clear - light breeze									
3 WELL VOLUMES	3	WATER APPEARANCE / ODOR: Clear - gray - muddy - slight odor									
PURGE DATE		COMMENTS: Will allow to recharge									
START TIME											
END TIME											
AMT PURGED	3										
SAMPLE DATE	11/5/19										
SAMPLE TIME	1005										
Analysis Request		CONTAINER TYPE			NUMBER OF CONTAINERS			PRESERVATIVE			
8260B (3) / 8015D (2)		40 ML VOA			5			HCL			
8270		1 LITER AMBER			1			None			
8015D		250 ML AMBER			1			None			
METALS - TOTAL		250 ML PLASTIC			1			HNO3			
METALS-DISSOLVED/FILTERED		125 ML PLASTIC			1			HNO3			
CATIONS		125 ML PLASTIC			1			H2SO4			
ANIONS		125 ML PLASTIC			1			None			
8011 - EDB		40 ML VOA			1			Na2S203			
CYANIDE		500 ML			1			NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/22/19		TIME: 1434		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.04	1	1445	7.34	15.4	10.91	7091.5	6.22	3.73	180.8	
DTB (FEET)	23.64	2	1447	7.34	15.5	10.90	7085	6.22	3.65	180.9	
DTB - DTW	10.6	3	1449	7.33	15.5	10.90	7091	6.22	3.54	181.1	
CAPACITY PER FOOT	0.74 - 4"	4	1451	7.33	15.5	10.90	7091.5	6.22	3.51	181.2	
3 WELL VOLUMES	5	WEATHER CONDITIONS: Clear, breezy									
PURGE DATE		WATER APPEARANCE / ODOR: clear									
START TIME	1436										
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	10/22										
SAMPLE TIME	1455										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

EDB

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10/23/19		TIME: 1310		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	20.02	1	1338	8.49	13.9	3.35	2177.5	1.77	1.77	206.2
DTB (FEET)	40.10	2	1340	8.49	13.9	3.35	2177.5	1.77	1.68	205.8
DTB - DTW	20.08	3	1342	8.49	13.9	3.35	2177.5	1.77	1.64	205.6
CAPACITY PER FOOT	0.74 - 4"	4	1344	8.49	13.9	3.35	2177.5	1.77	1.61	205.3
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy								
3 WELL VOLUMES	10									
PURGE DATE	10/23	WATER APPEARANCE / ODOR: Clear								
START TIME	1312									
END TIME		COMMENTS:								
AMT PURGED										
SAMPLE DATE	10/23									
SAMPLE TIME	1348									
Analysis Request			CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE			
8260B (3) / 8015D (2)			40 ML VOA		5		HCL			
8270			1 LITER AMBER		1		None			
8015D			250 ML AMBER		1		None			
METALS - TOTAL			250 ML PLASTIC		1		HNO3			
METALS-DISSOLVED/FILTERED			125 ML PLASTIC		1		HNO3			
CATIONS			125 ML PLASTIC		1		H2SO4			
ANIONS			125 ML PLASTIC		1		None			
8011 - EDB			40 ML VOA		1		Na2S2O3			
CYANIDE			500 ML		1		NaOH			
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

EDB

SAMPLE ID		TEST PARAMETERS									
MKT-42											
GAUGE DATE: 10/23/19		TIME: 1400		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	16.52	1	1423	8.14	14.3	3.83	2489	2.03	.77	197.9	
DTB (FEET)	33.15	2	1425	8.14	14.5	3.81	2476.5	2.03	.74	197.8	
DTB - DTW	16.63	3	1427	8.13	14.8	3.82	2483	2.03	.69	197.6	
CAPACITY PER FOOT	0.74 - 4"	4	1429	8.13	14.9	3.81	2476.5	2.03	.64	197.6	
	0.163 - 3"	WEATHER CONDITIONS:									
3 WELL VOLUMES	8	Clear, slight breeze									
PURGE DATE	10/23	WATER APPEARANCE / ODOR:									
START TIME	1403	Clear w/ org tint, slight odor									
END TIME		COMMENTS:									
AMT PURGED	8										
SAMPLE DATE	10/23										
SAMPLE TIME	1433										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





## MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

DUP/EDB

SAMPLE ID		TEST PARAMETERS								
GAUGE DATE: 10-24-19		TIME: 1000		DUPLICATE: Y / N Second		8011 EDB: Y / N		8270 ADD'L: Y / N		
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)
DTW (FEET)	4.34	1	1015	7.34	14.6	16.94	10357.6	9.38	1.57	216.9
DTB (FEET)	15.43	2	1017	7.34	14.6	16.99	10400	9.40	1.49	217.0
DTB - DTW	11.09	3	1019	7.33	14.6	16.03	10426	9.43	1.42	217.0
CAPACITY PER FOOT	0.74 - 4"	4	1021	7.34	14.6	16.04	10426	9.43	1.41	217.2
	0.163 - 2"	WEATHER CONDITIONS: clear, windy								
3 WELL VOLUMES	5	WATER APPEARANCE / ODOR: clear								
PURGE DATE	10/24	COMMENTS:								
START TIME	1005									
END TIME										
AMT PURGED										
SAMPLE DATE	10/24									
SAMPLE TIME	1025									
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE				
8260B (3) / 8015D (2)		40 ML VOA		5		HCL				
8270		1 LITER AMBER		1		None				
8015D		250 ML AMBER		1		None				
METALS - TOTAL		250 ML PLASTIC		1		HNO3				
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3				
CATIONS		125 ML PLASTIC		1		H2SO4				
ANIONS		125 ML PLASTIC		1		None				
8011 - EDB		40 ML VOA		1		Na2S2O3				
CYANIDE		500 ML		1		NaOH				
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter										
Completed by: /s/ Cheryl Johnson/Environmental Specialist										
Signature:										





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/24/19		TIME: 0900		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)		RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	3854	1	Did not record readings								
DTB (FEET)	51.15	2									
DTB - DTW	12.61	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear - breezy									
3 WELL VOLUMES	4	WATER APPEARANCE / ODOR: cloudy - grey tint									
PURGE DATE	10/24										
START TIME	0905										
END TIME		COMMENTS:									
AMT PURGED											
SAMPLE DATE	10/24										
SAMPLE TIME	0940										
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S203					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											





# MARATHON - GALLUP REFINERY

ANNUAL/THIRD QUARTER 2019

SAMPLE ID		TEST PARAMETERS									
GAUGE DATE: 10/28/19		TIME:		DUPLICATE: Y / N		8011 EDB: Y / N		8270 ADD'L: Y / N			
DHC (FEET)	11.97	RUNS	TIME	pH	Temp. Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	DO (mg/L)	ORP (mv)	
DTW (FEET)	13.00	1									
DTB (FEET)	30.24	2									
DTB - DTW	17.24	3									
CAPACITY PER FOOT	0.74 - 4"	4									
	0.163 - 2"	WEATHER CONDITIONS: Clear, breezy									
3 WELL VOLUMES		WATER APPEARANCE / ODOR: spH layer = 1.03									
PURGE DATE		COMMENTS: No Samples collected.									
START TIME											
ID TIME											
AMT PURGED											
SAMPLE DATE											
SAMPLE TIME											
Analysis Request		CONTAINER TYPE		NUMBER OF CONTAINERS		PRESERVATIVE					
8260B (3) / 8015D (2)		40 ML VOA		5		HCL					
8270		1 LITER AMBER		1		None					
8015D		250 ML AMBER		1		None					
METALS - TOTAL		250 ML PLASTIC		1		HNO3					
METALS-DISSOLVED/FILTERED		125 ML PLASTIC		1		HNO3					
CATIONS		125 ML PLASTIC		1		H2SO4					
ANIONS		125 ML PLASTIC		1		None					
8011 - EDB		40 ML VOA		1		Na2S2O3					
CYANIDE		500 ML		1		NaOH					
INSTRUMENTS USED: Oil/Water Interface Probe; Water Quality Meter											
Completed by: /s/ Cheryl Johnson/Environmental Specialist											
Signature:											



**APPENDIX E**  
**SUMMARY OF EPA / NMED / NMOCD / RCRA ACTIVITY**



**Appendix E**  
**Summary of EPA / NMED / NMOCD / RCRA Activity**

January 3, 2019 – Submittal to NMED – Assessment Report for AOC 16 – API Overflow Area

January 8, 2019 – Email Submittal to NMED – C-141 FCC Riser Release – Revised Form

January 24, 2019 – Submittal to NMED – 2017 Annual Ground Water Report – Final Report Copies

January 28, 2019 – Submittal to NMED – C-141 Isolation Valve Release

January 29, 2019 – Submittal to NMED – 2019 Financial Assurance Cost Estimate

January 31, 2019 – Submittal to NMED – Hydrocarbon Seep Interim Measures 2018 4<sup>th</sup> Quarter Status Report

January 31, 2019 – Submittal to NMED – Investigation Report OW-14 Source Area

January 31, 2019 – Submittal to NMED - Response to Approval with Modifications – Hydrocarbon Seep Interim Measures 2018 2<sup>nd</sup> Quarter Status Report

February 4, 2019 – Submittal to NMED - Response to Disapproval – Investigation Work Plan Up-Gradient MKTF Wells

February 5, 2019 thru March 28, 2019 - First quarter groundwater monitoring and surface water sampling

February 8, 2019 – Submittal to NMED – Work Plan for Containment Berm Slope Stability Modeling for the Evaporation Ponds

February 13, 2019 – Submittal to NMED – Response to Approval with Modifications – Revised Facility Wide Groundwater Monitoring Work Plan 2018 – Updates for 2018

February 20, 2019 – Submittal to NMED – 2017 Annual Groundwater Monitoring Report – Resubmittal of Copies

February 21, 2019 – Submittal to NMED – Response to Approval with Modifications – Hydrocarbon Seep Interim Measures 2018 3<sup>rd</sup> Quarter Status Report

February 21, 2019 – Submittal to NMED – Request to Store Waste Beyond 90 Days

March 25, 2019 - Submittal to NMED - 2018 Financial Assurance

March 27, 2019 – Submittal to NMED – Interim Groundwater Recovery System Work Plan

March 27, 2019 – Submittal to NMED – C-141 Union Connection Failure

March 28, 2019 – Submittal to NMED – Area of Concern 18 – Asphalt Tank Farm Assessment Report

March 28, 2019 – Submittal to NMED – Response to Disapproval - Investigation Work Plan OW-58 Twin Wells

April 4, 2019 – Submittal to NMED – SMW-2 Area and Boundary Well Investigation Report

April 4, 2019 – Submittal to NMED – Notice of Organizational Change



**Appendix E**  
**Summary of EPA / NMED / NMOCD / RCRA Activity**

April 11, 2019 – Submittal to NMED – Response to Comments NMED Approval with Modifications Letter dated March 17, 2017 - Investigation Work Plan for the SMW-2 and GWM-1 Area

April 25, 2019 – Submittal to NMED – Due Date Extension Request – 2019 Facility Wide Groundwater Monitoring Work Plan

April 26, 2019 – Submittal to NMED – Investigation Work Plan North Drainage Ditch

April 26, 2019 – Submittal to NMED – Response to Approval with Modifications - (Revised) Investigation Work Plan OW-58 Twin Well

April 30, 2019 – Submittal to NMED – Hydrocarbon Seep Interim Measures 2019 1<sup>st</sup> Quarter Status Report

May 1, 2019 thru June 27, 2019 - Second quarter groundwater monitoring

May 5, 2019 – Submittal to NMED – C-141 North Discharge Line of the API Bay Release

May 8, 2019 – Submittal to NMED – Response to Approval with Modifications - Interim Groundwater Recovery System Work Plan

May 9, 2019 – Submittal to NMED – Facility Wide Groundwater Monitoring Workplan – Updates for 2019

May 9, 2019 – Submittal to NMED – Response to Approval with Modifications - Evaporation Pond Berm Testing

May 13, 2019 – Submittal to NMED – Response to NMED Comment 14, March 21, 2019 Disapproval Letter, Annual Groundwater Monitoring Report 2017, Explanation of Benzene Concentrations in STP-1

May 13, 2019 – Submittal to NMED – Response to Disapproval - Investigation Report for North Drainage Ditch and OW-29 and OW-30 Area

May 13, 2019 – Email Submittal to NMED – SPH Analytical Data

May 20, 2019 – Submittal to NMED – Work Plan for Hydrocarbon Liquid Removal Pumps at Flare Knock-Out Tank

May 22, 2019 – Submittal to NMED – Investigation Work Plan SWMU 13 – Drainage Ditch

May 23, 2019 – Submittal to NMED – Due Date Extension Request, Investigation Report OW-14 Source Area, Comment 3 SPH Analysis and Comment 24 Tank Inspection Reports

May 23, 2019 – Submittal to NMED – Due Date Extension Request, Revisions to the 2017 Annual Groundwater Monitoring Report

May 23, 2019 – Submittal to NMED – Due Date Extension Request, Revisions to the Sanitary Lagoon Investigation Work Plan

May 23, 2019 – Submittal to NMED – Due Date Extension Request, Work Plan 2015 Annual Groundwater Report Comments January 28, 2019



**Appendix E**  
**Summary of EPA / NMED / NMOCD / RCRA Activity**

May 23, 2019 – Submittal to NMED – Response to Comment No. 39 on 2017 Annual Ground Water Monitoring Report (dated March 21, 2019)

May 24, 2019 – Submittal to NMED – Response to Approval with Modifications - (Revised) Investigation Work Plan Up-Gradient MKTF Wells

June 18, 2019 – Submittal to NMED – Response to Disapproval - (Revised) Investigation Work Plan Sanitary Lagoon October 2018

June 24, 2019 – Submittal to NMED – Response to Disapproval (Response to Approval with Modifications May 1, 2019), Interim Groundwater Recovery System Work Plan

June 27, 2019 - Central OCD Landfarm Semiannual Soil Sampling

June 28, 2019 – Submittal to NMED – Response to Approval with Modifications - (Revised) Investigation Work Plan Up-Gradient MKTF Wells

June 28, 2019 – Submittal to NMED – Response to Disapproval - Work Plan 2015 Annual Groundwater Report Comments

July 5, 2019 – Submittal to NMED – Response to Disapproval - Annual Groundwater Monitoring Report Gallup Refinery - 2017

July 26, 2019 – Submittal to NMED – Hydrocarbon Seep Interim Measures 2019 Second Quarter Status Report

July 26, 2019 – Submittal to NMED – Response to Disapproval - Investigation Work Plan Area of Concern 35

July 30, 2019 – Submittal to NMED – Response to Approval with Modifications - (Revised) Investigation Report North Drainage Ditch and OW-29 and OW-30 Areas

July 30, 2019 – Submittal to NMED – Response to Response to Approval with Modifications (Revised) - Investigation Work Plan Up-Gradient MKTF Wells

August 6, 2019 thru August 30, 2019 - Third quarter groundwater monitoring and surface water sampling

August 9, 2019 – Submittal to NMED – Response to Disapproval - Investigation Work Plan SWMU-2 and GWM-1 Areas

August 23, 2019 – Submittal to NMED – Second Response to Comment No. 39 on 2017 Annual Groundwater Monitoring Report (Dated March 27, 2019)

August 27, 2019 – Submittal to NMED – Due Date Extension Request 2018 Facility Wide Annual Groundwater Monitoring Report

August 27, 2019 - Submittal to NMED – Due Date Extension Request Hydrocarbon Seep Interim Measures 2019 Second Quarter Status Report

August 30, 2019 – Submittal to NMED – C-141 Overfill of Rail Car



**Appendix E**  
**Summary of EPA / NMED / NMOCD / RCRA Activity**

August 30, 2019 – Submittal to NMED – Response to Disapproval - Investigation Report Solid Waste Management Unit No. 10 Sludge Pits

August 30, 2019 – Submittal to NMED – Response to Disapproval - Investigation Work Plan SWMU No. 9 – Drainage Ditch and Inactive Land Farm

August 30, 2019 – Submittal to NMED – Work Plan for Installation of Monitoring Wells per Disapproval Annual Groundwater Monitoring Report Gallup Refinery 2017

September 5, 2019 – Submittal to NMED – Response to Comments Approval – Hydrocarbon Seep Interim Measures 2019 Second Quarter Status Report

September 7, 2019 – Submittal to NMED – Investigation Work Plan No. 2 OW-14 Source Area

September 11, 2019 – Submittal to NMED – Response to Disapproval - Facility Wide Ground Water Monitoring Work Plan – Updates for 2019

September 20, 2019 – Submittal to NMED – Response to Disapproval - Investigation Work Plan North Drainage Ditch Area

September 23, 2019 – Submittal to NMED – Investigation Work Plan Solid Waste Management Unit 1

September 25, 2019 – Submittal to NMED – Response to Disapproval – SMW-2 Area and Boundary Well Installation Report

September 26, 2019 – Submittal to NMED – 2018 Land Treatment Unit Sampling – Statistical Increase

September 26, 2019 – Submittal to NMED – Response to Disapproval – Investigation Work Plan Background Concentrations

September 30, 2019 – Submittal to NMED – 2018 Annual Groundwater Monitoring Report

September 30, 2019 – Email Submittal to NMED – August 2019 Wastewater Discharge Documentation

October 1, 2019 – Submittal to NMED - Response to Disapproval – 2019 Financial Assurance Cost Estimates

October 4, 2019 – Submittal to NMED – Response Action Report Tank 35 – Oil Water Release

October 9, 2019 thru December 3, 2019 - Fourth quarter groundwater monitoring

October 10, 2019 – Submittal to NMED – Notification to Conduct Monitor Well Installations – Investigation Work Plan OW-58 Twin Well, Investigation Work Plan Up-Gradient MKTF Wells, Investigation Work Plan SWMU 13, Investigation Work Plan Sanitary Lagoon

October 24, 2019 – Submittal to NMED – Response to Approval with Modifications – Revised Investigation Report OW-14 Source Area

October 24, 2019 – Submittal to NMED – Response to Second Disapproval – Work Plan 2015 Annual Groundwater Report Comments

November 11, 2019 – Submittal to NMED – C-141 Truck Rack Release



**Appendix E**  
**Summary of EPA / NMED / NMOCD / RCRA Activity**

November 12, 2019 – Submittal to NMED – Hydrocarbon Seep Interim Measures 2019 Third Quarter Status Report

November 12, 2019 – Submittal to NMED – Response to Approval with Modifications – 2017 Annual Groundwater Report – OW-61 through OW-65 Well Installation Report

November 12, 2019 – Submittal to NMED – Response to Comments – Hydrocarbon Seep Interim Measures 2019 Second Quarter Status Report

December 2, 2019 – Submittal to NMED – C-141 T231 Release

December 2, 2019 – Submittal to NMED – Response to Approval with Modification – Comment No. 6 – (Revised) Investigation Report North Drainage Ditch and OW-29 and OW-30 Areas

December 6, 2019 – Submittal to NMED – Response to Approval with Modifications – (Revised) SWM-2 Area and Boundary Wells Installation Report

December 9, 2019 – Submittal to NMED – Response to Approval with Modifications – Second Response to Comment No. 39 on 2017 Annual Groundwater Monitoring Report (Dated March 21, 2009)

December 10, 2019 – Submittal to NMED – Request for Extension of Time – Implementation of Area of Concern 35 Investigation

December 10, 2019 – Submittal to NMED – Request for Extension of Time – Sanitary Lagoon Investigation

December 10, 2019 – Submittal to NMED – Response to Approval with Modifications – Revised Investigation Report OW-14 Source Area

December 11, 2019 – Submittal to NMED – Area of Concern 24 – Crude Oil Tank Farm Assessment Report – January 20, 2017 Order on Consent

December 12, 2019 – Submittal to NMED – Response Action Report Sour Naphtha Release

December 16, 2019 – Submittal to NMED – Response to Approval with Modifications – Investigation Work Plan Solid Waste Management Unit 1

December 20, 2019 – Submittal to NMED – Response to Approval with Conditions – WMW-2 Benzene Exceedance Geoprobe Investigation Work Plan



## **APPENDIX F**

### **SUMMARY OF LEAKS, SPILLS AND RELEASES**



## **APPENDIX F**

### **SUMMARY OF LEAKS, SPILLS, AND RELEASES**

#### January 2, 2019 – FCC Riser Release

A hole in the riser off of the FCC column released a mixture of FCC catalyst fines and oil. The release caused a fire. The fire burned off any oil. The catalyst was deposited on the ground surrounding the FCC. The amount of non-hazardous catalyst released was estimated to be greater than 4 cubic yards.

Notification of the release was provided to the NMED Hazardous Waste Bureau and the Oil Conservation Division on January 3, 2019. An initial written report (Form C-141) was completed on January 7, 2019.

#### February 25, 2019 – Isolation Valve Release – T-582

The release occurred from an isolation valve that was left slightly open. The bull plug was missing on the water draw piping from T-582. An estimated 10 barrels (bbls) of gasoline had spilled into the containment area of T-582. The open valve was closed and the missing bull plug was replaced. Approximately 1 bbl of gasoline was recovered with a vacuum truck.

An initial written report (Form C-141) was completed on February 28, 2019.

#### March 13, 2019 – Valve/Union Release – Diesel Filter Pot

There was a valve and/or union connection failure on the hard piping of the Diesel Filter Pot which caused an estimated 42 bbls of diesel to leak in to the containment structure. Approximately 2 bbls were released onto the ground surface. Diesel overfilled the sump and leaked across the railroad tracks into a culvert that was connected to the stormwater system. The leak was discovered at 8:30 am. Vacuum trucks were dispatched and began to remove diesel. Boom absorbents were deployed inside the basin in Outfall #2 and at the culvert inlet on the east side of the railroad track. Earthen diversion dams were installed upstream of Outfall #2 and as a precautionary measure. Earthen diversion dams were also installed downstream of Outfall #2. The valve to Outfall #2 was in the closed position and no diesel left the site through the outfall. It is estimated that 2 bbls of diesel was released onto ground surface. Valves and hard piping were replaced on the Diesel Filter Pot. Clean up of contaminated soil was initiated.

Notification of the release was provided to the NMED Hazardous Waste Bureau and the Oil Conservation Division by telephone. An initial written report (Form C-141) was completed on March 27, 2019.



## **APPENDIX F**

### **SUMMARY OF LEAKS, SPILLS, AND RELEASES**

#### May 15, 2019 – North Discharge Line – API Bay

A small leak on the north discharge line of the API Bay was discovered during regular operator rounds. The source of the leak was a 1-inch crack on the pipe. The area was barricaded and a spill tray was placed under the leak. The API flow was stopped. An estimated 2 bbls of liquid was released to the ground. The liquid contained approximately 1 lb of F037 solids (primary separation sludge).

Notification of the release was provided to the NRC, NMED Hazardous Waste Bureau and the Oil Conservation Division by telephone on May 15, 2019. An initial written report (Form C-141) was completed on May 28, 2019.

#### August 2019 – TK 570 Investigation

The area around TK 570 was investigated earlier in 2016 and the results provided in the *Investigation Report OW-14 Source Area* (January 2019). The investigation continued in 2019 with four temporary monitor wells installed in August around the perimeter of TK 570. The results of the tank investigation revealed the presence of PSH on all four side of TK 570. The investigation was stopped due to concerns with the COVID-19 virus.

#### August 27, 2019 – Over Fill Release - Railroad Loading Rack

A railcar was overfilled at Spot 10 of the Railroad Loading Rack. Light Cycle Oil (LCO) flowed out of the railcar to the east and into a ditch running next to the railroad tracks. Overfill was noticed at approximately 6:30 pm. An estimated 20 bbls of LCO was released to the ground. The railcar was blocked in and earthen berms were constructed. Vacuum trucks were dispatched immediately to recover the LCO. Approximately 18 bbls of LCO were recovered with the vacuum trucks. Contaminated dirt was then excavated.

An initial written report (Form C-141) was completed on August 30, 2019.

#### October 27, 2019 – Line Leak – Truck Loading Rack

Stained soil was discovered west of the Truck Loading Rack. Hydrocarbon was found to be seeping out of the ground into a stormwater ditch. An earthen berm was installed at the northern end of the ditch. A vacuum truck was used to vacuum up hydrocarbon and water accumulating in the ditch. It was determined that the leak was from an underground transfer line at the Truck



**APPENDIX F**  
**SUMMARY OF LEAKS, SPILLS, AND RELEASES**

Loading Rack. The line was blocked in and was repaired to fix the leak. It was estimated that more than 100 bbl of unleaded gasoline was released to the ground. The investigation of the potentially affected area was suspended in early 2020 due to health and safety concerns associated with the COVID-19.

Notification of the release was provided to the Oil Conservation Division on November 5, 2019. An initial written report (Form C-141) was completed on November 7, 2019.

November 19, 2019 – Transmix Release – T-231

Transmix was found on the ground in the bermed area of T-231 after the tank had been filled. Approximately 6.2 bbls of transmix were released. Foam was placed on the spill and a vacuum truck was utilized to recover as much transmix as possible. Approximately 121 gallons of transmix were recovered. Contaminated soil was placed in roll-off boxes for waste characterization and disposal.

An initial written report (Form C-141) was completed on December 2, 2019.



**APPENDIX G**  
**OCD CENTRAL LANDFARM – SOIL ANALYTICAL DATA**  
**(ON ATTACHED CD)**





*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

October 03, 2019

Brian Moore  
Marathon  
92 Giant Crossing Rd  
Gallup, NM 87301  
TEL: (505) 722-3833  
FAX:

RE: OCD Central Landfarm Semiannual Sampling

OrderNo.: 1906G37

Dear Brian Moore:

Hall Environmental Analysis Laboratory received 13 sample(s) on 6/27/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 9:30:00 AM

**Lab ID:** 1906G37-001

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.0098	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1221	ND	0.018	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1232	ND	0.022	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1242	ND	0.012	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1248	ND	0.018	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1254	ND	0.018	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Aroclor 1260	ND	0.0085	0.023		mg/Kg	1	7/9/2019 11:39:53 PM	45963
Surr: Decachlorobiphenyl	82.8	0	25.7-135		%Rec	1	7/9/2019 11:39:53 PM	45963
Surr: Tetrachloro-m-xylene	98.4	0	32.3-138		%Rec	1	7/9/2019 11:39:53 PM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	ND	1.7	8.5		mg/Kg	1	7/5/2019 3:43:02 PM	45994
Motor Oil Range Organics (MRO)	ND	43	43		mg/Kg	1	7/5/2019 3:43:02 PM	45994
Surr: DNOP	96.7	0	70-130		%Rec	1	7/5/2019 3:43:02 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>smb</b>		
Fluoride	5.4	0.46	1.5		mg/Kg	5	7/10/2019 8:12:14 PM	46094
Chloride	160	0.51	7.5		mg/Kg	5	7/10/2019 8:12:14 PM	46094
Nitrogen, Nitrate (As N)	4.9	0.75	1.5		mg/Kg	5	7/10/2019 8:12:14 PM	46094
Sulfate	920	14	30		mg/Kg	20	7/10/2019 8:24:39 PM	46094
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.043	0.0018	0.032		mg/Kg	1	7/10/2019 2:21:22 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.9	5.0		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Barium	300	0.047	0.20		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Cadmium	ND	0.049	0.20		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Chromium	14	0.16	0.60		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Copper	12	0.23	0.60		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Iron	18000	73	250		mg/Kg	100	7/2/2019 8:15:38 AM	45944
Lead	3.4	0.49	0.50		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Manganese	380	0.042	0.20		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Selenium	ND	2.5	5.0		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Silver	ND	0.064	0.50		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Uranium	ND	4.4	10		mg/Kg	2	7/2/2019 8:55:34 AM	45944
Zinc	33	0.80	5.0		mg/Kg	2	7/2/2019 8:55:34 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Acenaphthylene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Aniline	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 9:30:00 AM

**Lab ID:** 1906G37-001

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Azobenzene	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benz(a)anthracene	ND	0.097	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzo(a)pyrene	ND	0.090	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzo(b)fluoranthene	ND	0.089	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzo(g,h,i)perylene	ND	0.087	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzo(k)fluoranthene	ND	0.092	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzoic acid	ND	0.10	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Benzyl alcohol	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Bis(2-chloroethoxy)methane	ND	0.15	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Bis(2-chloroethyl)ether	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Bis(2-ethylhexyl)phthalate	ND	0.14	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Bromophenyl phenyl ether	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Butyl benzyl phthalate	ND	0.10	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Carbazole	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Chloro-3-methylphenol	ND	0.15	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Chloroaniline	ND	0.14	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Chloronaphthalene	ND	0.13	0.25		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Chlorophenol	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Chlorophenyl phenyl ether	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Chrysene	ND	0.089	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Di-n-butyl phthalate	ND	0.15	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Di-n-octyl phthalate	ND	0.10	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Dibenz(a,h)anthracene	ND	0.092	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Dibenzofuran	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
1,2-Dichlorobenzene	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
1,3-Dichlorobenzene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
1,4-Dichlorobenzene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
3,3'-Dichlorobenzidine	ND	0.090	0.25		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Diethyl phthalate	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Dimethyl phthalate	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4-Dichlorophenol	ND	0.12	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4-Dimethylphenol	ND	0.11	0.30		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.093	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4-Dinitrophenol	ND	0.073	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4-Dinitrotoluene	ND	0.12	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,6-Dinitrotoluene	ND	0.13	0.50		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Fluoranthene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 9:30:00 AM

**Lab ID:** 1906G37-001

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Hexachlorobenzene	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Hexachlorobutadiene	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Hexachlorocyclopentadiene	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Hexachloroethane	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.10	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Isophorone	ND	0.15	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
1-Methylnaphthalene	ND	0.15	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Methylnaphthalene	ND	0.15	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Methylphenol	ND	0.12	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
3+4-Methylphenol	ND	0.12	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
N-Nitrosodi-n-propylamine	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
N-Nitrosodiphenylamine	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Naphthalene	ND	0.15	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Nitroaniline	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
3-Nitroaniline	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Nitroaniline	ND	0.13	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Nitrobenzene	ND	0.14	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2-Nitrophenol	ND	0.14	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
4-Nitrophenol	ND	0.14	0.25		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Pentachlorophenol	ND	0.10	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Phenanthrene	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Phenol	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Pyrene	ND	0.095	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Pyridine	ND	0.12	0.40		mg/Kg	1	7/8/2019 5:19:18 PM	45929
1,2,4-Trichlorobenzene	ND	0.16	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4,5-Trichlorophenol	ND	0.13	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
2,4,6-Trichlorophenol	ND	0.11	0.20		mg/Kg	1	7/8/2019 5:19:18 PM	45929
Surr: 2-Fluorophenol	60.5		24.8-95.2		%Rec	1	7/8/2019 5:19:18 PM	45929
Surr: Phenol-d5	61.6		29.9-97.8		%Rec	1	7/8/2019 5:19:18 PM	45929
Surr: 2,4,6-Tribromophenol	65.4		35.7-108		%Rec	1	7/8/2019 5:19:18 PM	45929
Surr: Nitrobenzene-d5	64.0		32.5-106		%Rec	1	7/8/2019 5:19:18 PM	45929
Surr: 2-Fluorobiphenyl	64.4		27.7-114		%Rec	1	7/8/2019 5:19:18 PM	45929
Surr: 4-Terphenyl-d14	65.1		15-148		%Rec	1	7/8/2019 5:19:18 PM	45929

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0041	0.025		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Toluene	ND	0.0048	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Ethylbenzene	ND	0.0029	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Methyl tert-butyl ether (MTBE)	ND	0.012	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 9:30:00 AM

**Lab ID:** 1906G37-001

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0045	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,3,5-Trimethylbenzene	ND	0.0048	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2-Dichloroethane (EDC)	ND	0.0051	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2-Dibromoethane (EDB)	ND	0.0045	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Naphthalene	ND	0.010	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1-Methylnaphthalene	ND	0.029	0.20		mg/Kg	1	7/3/2019 6:33:15 PM	45983
2-Methylnaphthalene	ND	0.022	0.20		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Acetone	ND	0.041	0.75		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Bromobenzene	ND	0.0048	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Bromodichloromethane	ND	0.0045	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Bromoform	ND	0.0045	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/3/2019 6:33:15 PM	45983
2-Butanone	0.069	0.058	0.50	J	mg/Kg	1	7/3/2019 6:33:15 PM	45983
Carbon disulfide	ND	0.016	0.50		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Carbon tetrachloride	ND	0.0047	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Chlorobenzene	ND	0.0064	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Chloroethane	ND	0.0073	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Chloroform	ND	0.0040	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Chloromethane	ND	0.0048	0.15		mg/Kg	1	7/3/2019 6:33:15 PM	45983
2-Chlorotoluene	ND	0.0043	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
4-Chlorotoluene	ND	0.0041	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
cis-1,2-DCE	ND	0.0068	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
cis-1,3-Dichloropropene	ND	0.0042	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2-Dibromo-3-chloropropane	ND	0.0051	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Dibromochloromethane	ND	0.0035	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Dibromomethane	ND	0.0054	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,3-Dichlorobenzene	ND	0.0043	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,4-Dichlorobenzene	ND	0.0042	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Dichlorodifluoromethane	ND	0.012	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1-Dichloroethane	ND	0.0032	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1-Dichloroethene	ND	0.020	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2-Dichloropropane	ND	0.0036	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,3-Dichloropropane	ND	0.0054	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
2,2-Dichloropropane	ND	0.016	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1-Dichloropropene	ND	0.0045	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Hexachlorobutadiene	ND	0.0051	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
2-Hexanone	ND	0.0083	0.50		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Isopropylbenzene	ND	0.0036	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 9:30:00 AM

**Lab ID:** 1906G37-001

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0041	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
4-Methyl-2-pentanone	ND	0.0094	0.50		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Methylene chloride	ND	0.0088	0.15		mg/Kg	1	7/3/2019 6:33:15 PM	45983
n-Butylbenzene	ND	0.0046	0.15		mg/Kg	1	7/3/2019 6:33:15 PM	45983
n-Propylbenzene	ND	0.0040	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
sec-Butylbenzene	ND	0.0056	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Styrene	ND	0.0039	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
tert-Butylbenzene	ND	0.0047	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1,1,2-Tetrachloroethane	ND	0.0034	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1,2,2-Tetrachloroethane	ND	0.0050	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Tetrachloroethene (PCE)	ND	0.0040	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
trans-1,2-DCE	ND	0.0046	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
trans-1,3-Dichloropropene	ND	0.0053	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2,3-Trichlorobenzene	ND	0.0044	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2,4-Trichlorobenzene	ND	0.0050	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1,1-Trichloroethane	ND	0.0045	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,1,2-Trichloroethane	ND	0.0035	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Trichloroethene (TCE)	ND	0.0058	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Trichlorofluoromethane	ND	0.017	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
1,2,3-Trichloropropane	ND	0.0081	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Vinyl chloride	ND	0.0033	0.050		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Xylenes, Total	ND	0.013	0.10		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Surr: Dibromofluoromethane	110		70-130		%Rec	1	7/3/2019 6:33:15 PM	45983
Surr: 1,2-Dichloroethane-d4	109		70-130		%Rec	1	7/3/2019 6:33:15 PM	45983
Surr: Toluene-d8	99.4		70-130		%Rec	1	7/3/2019 6:33:15 PM	45983
Surr: 4-Bromofluorobenzene	97.2		70-130		%Rec	1	7/3/2019 6:33:15 PM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	5.0		mg/Kg	1	7/3/2019 6:33:15 PM	45983
Surr: BFB	89.2	0	70-130		%Rec	1	7/3/2019 6:33:15 PM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	ND	2.6	19		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:00:00 AM

**Lab ID:** 1906G37-002

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.010	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1221	ND	0.019	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1232	ND	0.023	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1242	ND	0.012	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1248	ND	0.019	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1254	ND	0.019	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Aroclor 1260	ND	0.0087	0.023		mg/Kg	1	7/10/2019 12:12:55 AM	45963
Surr: Decachlorobiphenyl	74.4	0	25.7-135		%Rec	1	7/10/2019 12:12:55 AM	45963
Surr: Tetrachloro-m-xylene	78.8	0	32.3-138		%Rec	1	7/10/2019 12:12:55 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	ND	1.9	9.6		mg/Kg	1	7/5/2019 4:05:11 PM	45994
Motor Oil Range Organics (MRO)	ND	48	48		mg/Kg	1	7/5/2019 4:05:11 PM	45994
Surr: DNOP	93.2	0	70-130		%Rec	1	7/5/2019 4:05:11 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>smb</b>		
Fluoride	3.7	0.46	1.5		mg/Kg	5	7/10/2019 8:37:04 PM	46094
Chloride	240	0.51	7.5		mg/Kg	5	7/10/2019 8:37:04 PM	46094
Nitrogen, Nitrate (As N)	2.4	0.75	1.5		mg/Kg	5	7/10/2019 8:37:04 PM	46094
Sulfate	740	14	30		mg/Kg	20	7/10/2019 9:14:16 PM	46094
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.018	0.0018	0.032	J	mg/Kg	1	7/10/2019 2:23:22 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	2.9	2.8	5.0	J	mg/Kg	2	7/2/2019 8:57:26 AM	45944
Barium	180	0.046	0.20		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Cadmium	ND	0.048	0.20		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Chromium	15	0.16	0.60		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Copper	4.1	0.22	0.60		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Iron	18000	72	250		mg/Kg	100	7/2/2019 8:17:23 AM	45944
Lead	ND	0.48	0.50		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Manganese	340	0.041	0.20		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Selenium	ND	2.5	5.0		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Silver	ND	0.064	0.50		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Uranium	ND	4.3	10		mg/Kg	2	7/2/2019 8:57:26 AM	45944
Zinc	21	0.79	5.0		mg/Kg	2	7/2/2019 8:57:26 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Acenaphthylene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Aniline	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:00:00 AM

**Lab ID:** 1906G37-002

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Azobenzene	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benz(a)anthracene	ND	0.94	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzo(a)pyrene	ND	0.87	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzo(b)fluoranthene	ND	0.86	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzo(g,h,i)perylene	ND	0.84	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzo(k)fluoranthene	ND	0.89	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzoic acid	ND	1.0	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Benzyl alcohol	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Bis(2-chloroethoxy)methane	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Bis(2-chloroethyl)ether	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Bis(2-chloroisopropyl)ether	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Bis(2-ethylhexyl)phthalate	ND	1.4	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Bromophenyl phenyl ether	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Butyl benzyl phthalate	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Carbazole	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Chloro-3-methylphenol	ND	1.5	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Chloroaniline	ND	1.4	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Chloronaphthalene	ND	1.2	2.4	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Chlorophenol	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Chlorophenyl phenyl ether	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Chrysene	ND	0.86	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Di-n-butyl phthalate	ND	1.5	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Di-n-octyl phthalate	ND	0.99	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Dibenz(a,h)anthracene	ND	0.89	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Dibenzofuran	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
1,2-Dichlorobenzene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
1,3-Dichlorobenzene	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
1,4-Dichlorobenzene	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
3,3'-Dichlorobenzidine	ND	0.87	2.4	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Diethyl phthalate	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Dimethyl phthalate	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4-Dichlorophenol	ND	1.1	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4-Dimethylphenol	ND	1.1	2.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.90	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4-Dinitrophenol	ND	0.71	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4-Dinitrotoluene	ND	1.1	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,6-Dinitrotoluene	ND	1.3	4.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Fluoranthene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:00:00 AM

**Lab ID:** 1906G37-002

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Hexachlorobenzene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Hexachlorobutadiene	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Hexachlorocyclopentadiene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Hexachloroethane	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.97	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Isophorone	ND	1.4	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
1-Methylnaphthalene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Methylnaphthalene	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Methylphenol	ND	1.2	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
3+4-Methylphenol	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
N-Nitrosodi-n-propylamine	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
N-Nitrosodiphenylamine	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Naphthalene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Nitroaniline	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
3-Nitroaniline	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Nitroaniline	ND	1.2	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Nitrobenzene	ND	1.3	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2-Nitrophenol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
4-Nitrophenol	ND	1.3	2.4	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Pentachlorophenol	ND	1.0	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Phenanthrene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Phenol	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Pyrene	ND	0.92	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Pyridine	ND	1.2	3.9	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
1,2,4-Trichlorobenzene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4,5-Trichlorophenol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
2,4,6-Trichlorophenol	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 5:49:19 PM	45929
Surr: 2-Fluorophenol	0		24.8-95.2	SD	%Rec	1	7/8/2019 5:49:19 PM	45929
Surr: Phenol-d5	0		29.9-97.8	SD	%Rec	1	7/8/2019 5:49:19 PM	45929
Surr: 2,4,6-Tribromophenol	0		35.7-108	SD	%Rec	1	7/8/2019 5:49:19 PM	45929
Surr: Nitrobenzene-d5	0		32.5-106	SD	%Rec	1	7/8/2019 5:49:19 PM	45929
Surr: 2-Fluorobiphenyl	0		27.7-114	SD	%Rec	1	7/8/2019 5:49:19 PM	45929
Surr: 4-Terphenyl-d14	0		15-148	SD	%Rec	1	7/8/2019 5:49:19 PM	45929

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0039	0.024		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Toluene	ND	0.0046	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Ethylbenzene	ND	0.0028	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Methyl tert-butyl ether (MTBE)	ND	0.011	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:00:00 AM

**Lab ID:** 1906G37-002

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0044	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,3,5-Trimethylbenzene	ND	0.0047	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2-Dichloroethane (EDC)	ND	0.0049	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2-Dibromoethane (EDB)	ND	0.0044	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Naphthalene	ND	0.0096	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1-Methylnaphthalene	ND	0.028	0.19		mg/Kg	1	7/3/2019 7:02:39 PM	45983
2-Methylnaphthalene	ND	0.021	0.19		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Acetone	ND	0.040	0.72		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Bromobenzene	ND	0.0046	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Bromodichloromethane	ND	0.0044	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Bromoform	ND	0.0043	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Bromomethane	ND	0.012	0.14		mg/Kg	1	7/3/2019 7:02:39 PM	45983
2-Butanone	0.073	0.056	0.48	J	mg/Kg	1	7/3/2019 7:02:39 PM	45983
Carbon disulfide	ND	0.016	0.48		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Carbon tetrachloride	ND	0.0046	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Chlorobenzene	ND	0.0062	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Chloroethane	ND	0.0071	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Chloroform	ND	0.0039	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Chloromethane	ND	0.0046	0.14		mg/Kg	1	7/3/2019 7:02:39 PM	45983
2-Chlorotoluene	ND	0.0042	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
4-Chlorotoluene	ND	0.0039	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
cis-1,2-DCE	ND	0.0066	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
cis-1,3-Dichloropropene	ND	0.0041	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2-Dibromo-3-chloropropane	ND	0.0049	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Dibromochloromethane	ND	0.0034	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Dibromomethane	ND	0.0052	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2-Dichlorobenzene	ND	0.0039	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,3-Dichlorobenzene	ND	0.0042	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,4-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Dichlorodifluoromethane	ND	0.011	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1-Dichloroethane	ND	0.0031	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1-Dichloroethene	ND	0.019	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2-Dichloropropane	ND	0.0035	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,3-Dichloropropane	ND	0.0052	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
2,2-Dichloropropane	ND	0.016	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1-Dichloropropene	ND	0.0044	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Hexachlorobutadiene	ND	0.0049	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
2-Hexanone	ND	0.0080	0.48		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Isopropylbenzene	ND	0.0035	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:00:00 AM

**Lab ID:** 1906G37-002

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0040	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
4-Methyl-2-pentanone	ND	0.0091	0.48		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Methylene chloride	ND	0.0085	0.14		mg/Kg	1	7/3/2019 7:02:39 PM	45983
n-Butylbenzene	ND	0.0045	0.14		mg/Kg	1	7/3/2019 7:02:39 PM	45983
n-Propylbenzene	ND	0.0038	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
sec-Butylbenzene	ND	0.0054	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Styrene	ND	0.0038	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
tert-Butylbenzene	ND	0.0045	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1,1,2-Tetrachloroethane	ND	0.0032	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1,2,2-Tetrachloroethane	ND	0.0049	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Tetrachloroethene (PCE)	ND	0.0038	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
trans-1,2-DCE	ND	0.0044	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
trans-1,3-Dichloropropene	ND	0.0051	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2,3-Trichlorobenzene	ND	0.0042	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2,4-Trichlorobenzene	ND	0.0049	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1,1-Trichloroethane	ND	0.0043	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,1,2-Trichloroethane	ND	0.0034	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Trichloroethene (TCE)	ND	0.0056	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Trichlorofluoromethane	ND	0.016	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
1,2,3-Trichloropropane	ND	0.0078	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Vinyl chloride	ND	0.0031	0.048		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Xylenes, Total	ND	0.012	0.096		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Surr: Dibromofluoromethane	99.6		70-130		%Rec	1	7/3/2019 7:02:39 PM	45983
Surr: 1,2-Dichloroethane-d4	101		70-130		%Rec	1	7/3/2019 7:02:39 PM	45983
Surr: Toluene-d8	98.8		70-130		%Rec	1	7/3/2019 7:02:39 PM	45983
Surr: 4-Bromofluorobenzene	93.3		70-130		%Rec	1	7/3/2019 7:02:39 PM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	4.8		mg/Kg	1	7/3/2019 7:02:39 PM	45983
Surr: BFB	86.0	0	70-130		%Rec	1	7/3/2019 7:02:39 PM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	ND	2.7	19		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:50:00 AM

**Lab ID:** 1906G37-003

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.011	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1221	ND	0.020	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1232	ND	0.024	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1242	ND	0.013	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1248	ND	0.020	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1254	ND	0.020	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Aroclor 1260	ND	0.0093	0.025		mg/Kg	1	7/10/2019 1:52:12 AM	45963
Surr: Decachlorobiphenyl	75.6	0	25.7-135		%Rec	1	7/10/2019 1:52:12 AM	45963
Surr: Tetrachloro-m-xylene	87.6	0	32.3-138		%Rec	1	7/10/2019 1:52:12 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	33	1.8	9.1		mg/Kg	1	7/8/2019 6:24:41 PM	45994
Motor Oil Range Organics (MRO)	57	46	46		mg/Kg	1	7/8/2019 6:24:41 PM	45994
Surr: DNOP	96.5	0	70-130		%Rec	1	7/8/2019 6:24:41 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>smb</b>		
Fluoride	10	0.46	1.5		mg/Kg	5	7/10/2019 9:26:41 PM	46094
Chloride	150	0.51	7.5		mg/Kg	5	7/10/2019 9:26:41 PM	46094
Nitrogen, Nitrate (As N)	4.2	0.75	1.5		mg/Kg	5	7/10/2019 9:26:41 PM	46094
Sulfate	700	3.4	7.5		mg/Kg	5	7/10/2019 9:26:41 PM	46094
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.14	0.0017	0.031		mg/Kg	1	7/10/2019 2:29:25 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcb</b>		
Arsenic	3.4	2.8	5.0	J	mg/Kg	2	7/2/2019 9:04:56 AM	45944
Barium	320	0.046	0.20		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Cadmium	ND	0.048	0.20		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Chromium	13	0.16	0.60		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Copper	17	0.22	0.60		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Iron	16000	72	250		mg/Kg	100	7/2/2019 8:24:54 AM	45944
Lead	3.9	0.48	0.50		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Manganese	410	0.041	0.20		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Selenium	ND	2.5	5.0		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Silver	ND	0.064	0.50		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Uranium	ND	4.3	9.9		mg/Kg	2	7/2/2019 9:04:56 AM	45944
Zinc	59	0.79	5.0		mg/Kg	2	7/2/2019 9:04:56 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Acenaphthylene	ND	0.10	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Aniline	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:50:00 AM

**Lab ID:** 1906G37-003

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	0.099	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Azobenzene	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benz(a)anthracene	ND	0.089	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzo(a)pyrene	ND	0.083	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzo(b)fluoranthene	ND	0.082	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzo(g,h,i)perylene	ND	0.080	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzo(k)fluoranthene	ND	0.084	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzoic acid	0.096	0.096	0.46	J	mg/Kg	1	7/8/2019 6:19:41 PM	45929
Benzyl alcohol	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Bis(2-chloroethoxy)methane	ND	0.14	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Bis(2-chloroethyl)ether	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Bis(2-ethylhexyl)phthalate	0.14	0.13	0.46	J	mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Bromophenyl phenyl ether	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Butyl benzyl phthalate	ND	0.095	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Carbazole	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Chloro-3-methylphenol	ND	0.14	0.46		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Chloroaniline	ND	0.13	0.46		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Chloronaphthalene	ND	0.12	0.23		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Chlorophenol	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Chlorophenyl phenyl ether	ND	0.10	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Chrysene	ND	0.082	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Di-n-butyl phthalate	ND	0.14	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Di-n-octyl phthalate	ND	0.095	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Dibenz(a,h)anthracene	ND	0.084	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Dibenzofuran	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
1,2-Dichlorobenzene	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
1,3-Dichlorobenzene	ND	0.098	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
1,4-Dichlorobenzene	ND	0.099	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
3,3'-Dichlorobenzidine	ND	0.083	0.23		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Diethyl phthalate	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Dimethyl phthalate	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4-Dichlorophenol	ND	0.11	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4-Dimethylphenol	ND	0.10	0.28		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.086	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4-Dinitrophenol	ND	0.067	0.46		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4-Dinitrotoluene	ND	0.11	0.46		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,6-Dinitrotoluene	ND	0.12	0.46		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Fluoranthene	ND	0.10	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

CLIENT: Marathon

Client Sample ID: CENTRAL OCD LF TZ02

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 6/27/2019 10:50:00 AM

Lab ID: 1906G37-003

Matrix: SOIL

Received Date: 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: DAM	
Fluorene	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Hexachlorobenzene	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Hexachlorobutadiene	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Hexachlorocyclopentadiene	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Hexachloroethane	ND	0.10	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.092	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Isophorone	ND	0.14	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
1-Methylnaphthalene	ND	0.14	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Methylnaphthalene	ND	0.14	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Methylphenol	ND	0.11	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
3+4-Methylphenol	ND	0.11	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
N-Nitrosodi-n-propylamine	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
N-Nitrosodiphenylamine	ND	0.098	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Naphthalene	ND	0.14	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Nitroaniline	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
3-Nitroaniline	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Nitroaniline	ND	0.12	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Nitrobenzene	ND	0.13	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2-Nitrophenol	ND	0.13	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
4-Nitrophenol	ND	0.13	0.23		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Pentachlorophenol	ND	0.096	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Phenanthrene	ND	0.10	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Phenol	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Pyrene	ND	0.087	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Pyridine	ND	0.11	0.37		mg/Kg	1	7/8/2019 6:19:41 PM	45929
1,2,4-Trichlorobenzene	ND	0.14	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4,5-Trichlorophenol	ND	0.12	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
2,4,6-Trichlorophenol	ND	0.098	0.19		mg/Kg	1	7/8/2019 6:19:41 PM	45929
Surr: 2-Fluorophenol	76.3		24.8-95.2		%Rec	1	7/8/2019 6:19:41 PM	45929
Surr: Phenol-d5	78.6		29.9-97.8		%Rec	1	7/8/2019 6:19:41 PM	45929
Surr: 2,4,6-Tribromophenol	77.1		35.7-108		%Rec	1	7/8/2019 6:19:41 PM	45929
Surr: Nitrobenzene-d5	85.1		32.5-106		%Rec	1	7/8/2019 6:19:41 PM	45929
Surr: 2-Fluorobiphenyl	80.6		27.7-114		%Rec	1	7/8/2019 6:19:41 PM	45929
Surr: 4-Terphenyl-d14	83.7		15-148		%Rec	1	7/8/2019 6:19:41 PM	45929

**EPA METHOD 8260B: VOLATILES**

Analyst: DJF

Benzene	ND	0.0040	0.025		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Toluene	ND	0.0047	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Ethylbenzene	ND	0.0029	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Methyl tert-butyl ether (MTBE)	ND	0.012	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:50:00 AM

**Lab ID:** 1906G37-003

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0045	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,3,5-Trimethylbenzene	ND	0.0048	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2-Dichloroethane (EDC)	ND	0.0050	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2-Dibromoethane (EDB)	ND	0.0045	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Naphthalene	ND	0.0099	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1-Methylnaphthalene	ND	0.028	0.20		mg/Kg	1	7/3/2019 11:56:17 PM	45983
2-Methylnaphthalene	ND	0.022	0.20		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Acetone	ND	0.041	0.74		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Bromobenzene	ND	0.0047	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Bromodichloromethane	ND	0.0045	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Bromoform	ND	0.0044	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/3/2019 11:56:17 PM	45983
2-Butanone	0.084	0.057	0.49	J	mg/Kg	1	7/3/2019 11:56:17 PM	45983
Carbon disulfide	ND	0.016	0.49		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Carbon tetrachloride	ND	0.0047	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Chlorobenzene	ND	0.0063	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Chloroethane	ND	0.0073	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Chloroform	ND	0.0040	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Chloromethane	ND	0.0047	0.15		mg/Kg	1	7/3/2019 11:56:17 PM	45983
2-Chlorotoluene	ND	0.0043	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
4-Chlorotoluene	ND	0.0040	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
cis-1,2-DCE	ND	0.0067	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
cis-1,3-Dichloropropene	ND	0.0042	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2-Dibromo-3-chloropropane	ND	0.0051	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Dibromochloromethane	ND	0.0035	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Dibromomethane	ND	0.0053	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2-Dichlorobenzene	ND	0.0040	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,3-Dichlorobenzene	ND	0.0043	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,4-Dichlorobenzene	ND	0.0041	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Dichlorodifluoromethane	ND	0.011	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1-Dichloroethane	ND	0.0032	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1-Dichloroethene	ND	0.020	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2-Dichloropropane	ND	0.0036	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,3-Dichloropropane	ND	0.0053	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
2,2-Dichloropropane	ND	0.016	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1-Dichloropropene	ND	0.0045	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Hexachlorobutadiene	ND	0.0050	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
2-Hexanone	ND	0.0082	0.49		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Isopropylbenzene	ND	0.0036	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 10:50:00 AM

**Lab ID:** 1906G37-003

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
4-Isopropyltoluene	ND	0.0041	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
4-Methyl-2-pentanone	ND	0.0093	0.49		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Methylene chloride	ND	0.0087	0.15		mg/Kg	1	7/3/2019 11:56:17 PM	45983
n-Butylbenzene	ND	0.0046	0.15		mg/Kg	1	7/3/2019 11:56:17 PM	45983
n-Propylbenzene	ND	0.0039	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
sec-Butylbenzene	ND	0.0056	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Styrene	ND	0.0039	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
tert-Butylbenzene	ND	0.0047	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1,1,2-Tetrachloroethane	ND	0.0033	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1,2,2-Tetrachloroethane	ND	0.0050	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Tetrachloroethene (PCE)	ND	0.0039	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
trans-1,2-DCE	ND	0.0045	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
trans-1,3-Dichloropropene	ND	0.0052	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2,3-Trichlorobenzene	ND	0.0043	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2,4-Trichlorobenzene	ND	0.0050	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1,1-Trichloroethane	ND	0.0045	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,1,2-Trichloroethane	ND	0.0035	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Trichloroethene (TCE)	ND	0.0057	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Trichlorofluoromethane	ND	0.017	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
1,2,3-Trichloropropane	ND	0.0080	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Vinyl chloride	ND	0.0032	0.049		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Xylenes, Total	ND	0.012	0.099		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Surr: Dibromofluoromethane	107		70-130		%Rec	1	7/3/2019 11:56:17 PM	45983
Surr: 1,2-Dichloroethane-d4	106		70-130		%Rec	1	7/3/2019 11:56:17 PM	45983
Surr: Toluene-d8	98.2		70-130		%Rec	1	7/3/2019 11:56:17 PM	45983
Surr: 4-Bromofluorobenzene	95.4		70-130		%Rec	1	7/3/2019 11:56:17 PM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF	
Gasoline Range Organics (GRO)	ND	1.2	4.9		mg/Kg	1	7/3/2019 11:56:17 PM	45983
Surr: BFB	88.6	0	70-130		%Rec	1	7/3/2019 11:56:17 PM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: Irm	
Petroleum Hydrocarbons, TR	54	2.7	20		mg/Kg	1	7/9/2019	45999

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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:10:00 AM

**Lab ID:** 1906G37-004

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.0077	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1221	ND	0.014	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1232	ND	0.017	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1242	ND	0.0094	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1248	ND	0.014	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1254	ND	0.014	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Aroclor 1260	ND	0.0067	0.018		mg/Kg	1	7/10/2019 2:25:16 AM	45963
Surr: Decachlorobiphenyl	56.0	0	25.7-135		%Rec	1	7/10/2019 2:25:16 AM	45963
Surr: Tetrachloro-m-xylene	65.2	0	32.3-138		%Rec	1	7/10/2019 2:25:16 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	ND	1.7	8.6		mg/Kg	1	7/5/2019 5:34:23 PM	45994
Motor Oil Range Organics (MRO)	ND	43	43		mg/Kg	1	7/5/2019 5:34:23 PM	45994
Surr: DNOP	95.0	0	70-130		%Rec	1	7/5/2019 5:34:23 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>smb</b>		
Fluoride	3.1	0.46	1.5		mg/Kg	5	7/10/2019 10:16:20 PM	46094
Chloride	150	0.51	7.5		mg/Kg	5	7/10/2019 10:16:20 PM	46094
Nitrogen, Nitrate (As N)	2.0	0.75	1.5		mg/Kg	5	7/10/2019 10:16:20 PM	46094
Sulfate	850	14	30		mg/Kg	20	7/10/2019 10:28:44 PM	46094
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.0051	0.0017	0.031	J	mg/Kg	1	7/10/2019 2:31:29 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.9	5.1		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Barium	240	0.047	0.20		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Cadmium	ND	0.049	0.20		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Chromium	16	0.16	0.61		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Copper	4.2	0.23	0.61		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Iron	21000	74	250		mg/Kg	100	7/2/2019 8:26:40 AM	45944
Lead	1.8	0.49	0.51		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Manganese	370	0.042	0.20		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Selenium	3.0	2.5	5.1	J	mg/Kg	2	7/2/2019 9:12:40 AM	45944
Silver	ND	0.065	0.51		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Uranium	ND	4.4	10		mg/Kg	2	7/2/2019 9:12:40 AM	45944
Zinc	23	0.80	5.1		mg/Kg	2	7/2/2019 9:12:40 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Acenaphthylene	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Aniline	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:10:00 AM

**Lab ID:** 1906G37-004

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Azobenzene	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benz(a)anthracene	ND	0.10	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzo(a)pyrene	ND	0.093	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzo(b)fluoranthene	ND	0.092	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzo(g,h,i)perylene	ND	0.090	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzo(k)fluoranthene	ND	0.095	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzoic acid	0.11	0.11	0.52	J	mg/Kg	1	7/8/2019 6:50:14 PM	45929
Benzyl alcohol	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Bis(2-chloroethoxy)methane	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Bis(2-chloroethyl)ether	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Bis(2-ethylhexyl)phthalate	0.28	0.15	0.52	J	mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Bromophenyl phenyl ether	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Butyl benzyl phthalate	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Carbazole	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Chloro-3-methylphenol	ND	0.16	0.52		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Chloroaniline	ND	0.15	0.52		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Chloronaphthalene	ND	0.13	0.26		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Chlorophenol	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Chlorophenyl phenyl ether	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Chrysene	ND	0.092	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Di-n-butyl phthalate	0.23	0.16	0.42	J	mg/Kg	1	7/8/2019 6:50:14 PM	45929
Di-n-octyl phthalate	ND	0.11	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Dibenz(a,h)anthracene	ND	0.095	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Dibenzofuran	ND	0.14	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
1,2-Dichlorobenzene	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
1,3-Dichlorobenzene	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
1,4-Dichlorobenzene	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
3,3'-Dichlorobenzidine	ND	0.093	0.26		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Diethyl phthalate	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Dimethyl phthalate	ND	0.14	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4-Dichlorophenol	ND	0.12	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4-Dimethylphenol	ND	0.12	0.31		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.097	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4-Dinitrophenol	ND	0.076	0.52		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4-Dinitrotoluene	ND	0.12	0.52		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,6-Dinitrotoluene	ND	0.14	0.52		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Fluoranthene	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:10:00 AM

**Lab ID:** 1906G37-004

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Hexachlorobenzene	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Hexachlorobutadiene	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Hexachlorocyclopentadiene	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Hexachloroethane	ND	0.12	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.10	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Isophorone	ND	0.15	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
1-Methylnaphthalene	ND	0.16	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Methylnaphthalene	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Methylphenol	ND	0.12	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
3+4-Methylphenol	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
N-Nitrosodi-n-propylamine	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
N-Nitrosodiphenylamine	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Naphthalene	ND	0.16	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Nitroaniline	ND	0.15	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
3-Nitroaniline	ND	0.14	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Nitroaniline	ND	0.13	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Nitrobenzene	ND	0.14	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2-Nitrophenol	ND	0.14	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
4-Nitrophenol	ND	0.14	0.26		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Pentachlorophenol	ND	0.11	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Phenanthrene	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Phenol	ND	0.13	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Pyrene	ND	0.098	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Pyridine	ND	0.13	0.42		mg/Kg	1	7/8/2019 6:50:14 PM	45929
1,2,4-Trichlorobenzene	ND	0.16	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4,5-Trichlorophenol	ND	0.14	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
2,4,6-Trichlorophenol	ND	0.11	0.21		mg/Kg	1	7/8/2019 6:50:14 PM	45929
Surr: 2-Fluorophenol	69.1		24.8-95.2		%Rec	1	7/8/2019 6:50:14 PM	45929
Surr: Phenol-d5	76.9		29.9-97.8		%Rec	1	7/8/2019 6:50:14 PM	45929
Surr: 2,4,6-Tribromophenol	71.8		35.7-108		%Rec	1	7/8/2019 6:50:14 PM	45929
Surr: Nitrobenzene-d5	82.4		32.5-106		%Rec	1	7/8/2019 6:50:14 PM	45929
Surr: 2-Fluorobiphenyl	83.1		27.7-114		%Rec	1	7/8/2019 6:50:14 PM	45929
Surr: 4-Terphenyl-d14	83.5		15-148		%Rec	1	7/8/2019 6:50:14 PM	45929

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0040	0.024		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Toluene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Ethylbenzene	ND	0.0028	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.011	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:10:00 AM

**Lab ID:** 1906G37-004

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,3,5-Trimethylbenzene	ND	0.0047	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0049	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Naphthalene	ND	0.0097	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1-Methylnaphthalene	ND	0.028	0.19		mg/Kg	1	7/4/2019 12:25:34 AM	45983
2-Methylnaphthalene	ND	0.021	0.19		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Acetone	ND	0.040	0.73		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Bromobenzene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Bromodichloromethane	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Bromoform	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/4/2019 12:25:34 AM	45983
2-Butanone	0.078	0.056	0.48	J	mg/Kg	1	7/4/2019 12:25:34 AM	45983
Carbon disulfide	ND	0.016	0.48		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Carbon tetrachloride	ND	0.0046	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Chlorobenzene	ND	0.0062	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Chloroethane	ND	0.0071	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Chloroform	ND	0.0039	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Chloromethane	ND	0.0046	0.15		mg/Kg	1	7/4/2019 12:25:34 AM	45983
2-Chlorotoluene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
4-Chlorotoluene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
cis-1,2-DCE	ND	0.0066	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
cis-1,3-Dichloropropene	ND	0.0041	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0050	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Dibromochloromethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Dibromomethane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,3-Dichlorobenzene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,4-Dichlorobenzene	ND	0.0041	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Dichlorodifluoromethane	ND	0.011	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1-Dichloroethane	ND	0.0031	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1-Dichloroethene	ND	0.019	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2-Dichloropropane	ND	0.0035	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,3-Dichloropropane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
2,2-Dichloropropane	ND	0.016	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1-Dichloropropene	ND	0.0044	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Hexachlorobutadiene	ND	0.0049	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
2-Hexanone	ND	0.0080	0.48		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Isopropylbenzene	ND	0.0035	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ02

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:10:00 AM

**Lab ID:** 1906G37-004

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>								Analyst: DJF
4-Isopropyltoluene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
4-Methyl-2-pentanone	ND	0.0091	0.48		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Methylene chloride	ND	0.0086	0.15		mg/Kg	1	7/4/2019 12:25:34 AM	45983
n-Butylbenzene	ND	0.0045	0.15		mg/Kg	1	7/4/2019 12:25:34 AM	45983
n-Propylbenzene	ND	0.0039	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
sec-Butylbenzene	ND	0.0055	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Styrene	ND	0.0038	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
tert-Butylbenzene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0033	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0049	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Tetrachloroethene (PCE)	ND	0.0039	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
trans-1,2-DCE	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
trans-1,3-Dichloropropene	ND	0.0051	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2,3-Trichlorobenzene	ND	0.0043	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2,4-Trichlorobenzene	ND	0.0049	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1,1-Trichloroethane	ND	0.0044	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,1,2-Trichloroethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Trichloroethene (TCE)	ND	0.0056	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Trichlorofluoromethane	ND	0.016	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
1,2,3-Trichloropropane	ND	0.0078	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Vinyl chloride	ND	0.0032	0.048		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Xylenes, Total	ND	0.012	0.097		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Surr: Dibromofluoromethane	102		70-130		%Rec	1	7/4/2019 12:25:34 AM	45983
Surr: 1,2-Dichloroethane-d4	102		70-130		%Rec	1	7/4/2019 12:25:34 AM	45983
Surr: Toluene-d8	96.3		70-130		%Rec	1	7/4/2019 12:25:34 AM	45983
Surr: 4-Bromofluorobenzene	96.0		70-130		%Rec	1	7/4/2019 12:25:34 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>								Analyst: DJF
Gasoline Range Organics (GRO)	ND	1.2	4.8		mg/Kg	1	7/4/2019 12:25:34 AM	45983
Surr: BFB	93.2	0	70-130		%Rec	1	7/4/2019 12:25:34 AM	45983
<b>EPA METHOD 418.1: TPH</b>								Analyst: Irm
Petroleum Hydrocarbons, TR	ND	2.7	20		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1906G37**

Date Reported: **10/3/2019**

**CLIENT:** Marathon

**Client Sample ID:** Trip Blank

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:**

**Lab ID:** 1906G37-005

**Matrix:** AQUEOUS

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>RAA</b>	
Benzene	ND	0.17	1.0		µg/L	1	7/8/2019 3:11:00 PM	SL6122
Toluene	ND	0.35	1.0		µg/L	1	7/8/2019 3:11:00 PM	SL6122
Ethylbenzene	ND	0.13	1.0		µg/L	1	7/8/2019 3:11:00 PM	SL6122
Xylenes, Total	ND	0.45	1.5		µg/L	1	7/8/2019 3:11:00 PM	SL6122
Surr: 1,2-Dichloroethane-d4	116	0	70-130		%Rec	1	7/8/2019 3:11:00 PM	SL6122
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	7/8/2019 3:11:00 PM	SL6122
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	7/8/2019 3:11:00 PM	SL6122
Surr: Toluene-d8	95.5	0	70-130		%Rec	1	7/8/2019 3:11:00 PM	SL6122

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:50:00 AM

**Lab ID:** 1906G37-006

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.0098	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1221	ND	0.018	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1232	ND	0.022	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1242	ND	0.012	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1248	ND	0.018	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1254	ND	0.018	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Aroclor 1260	ND	0.0085	0.023		mg/Kg	1	7/10/2019 2:58:19 AM	45963
Surr: Decachlorobiphenyl	78.8	0	25.7-135		%Rec	1	7/10/2019 2:58:19 AM	45963
Surr: Tetrachloro-m-xylene	91.6	0	32.3-138		%Rec	1	7/10/2019 2:58:19 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	87	2.0	9.8		mg/Kg	1	7/8/2019 6:47:09 PM	45994
Motor Oil Range Organics (MRO)	110	49	49		mg/Kg	1	7/8/2019 6:47:09 PM	45994
Surr: DNOP	100	0	70-130		%Rec	1	7/8/2019 6:47:09 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>CAS</b>		
Fluoride	7.1	0.46	1.5		mg/Kg	5	7/11/2019 5:03:32 PM	46126
Chloride	330	2.0	30		mg/Kg	20	7/11/2019 5:15:56 PM	46126
Nitrogen, Nitrate (As N)	13	0.75	1.5		mg/Kg	5	7/11/2019 5:03:32 PM	46126
Sulfate	1300	14	30		mg/Kg	20	7/11/2019 5:15:56 PM	46126
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.094	0.0018	0.032		mg/Kg	1	7/10/2019 2:33:43 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.9	5.1		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Barium	260	0.047	0.20		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Cadmium	ND	0.049	0.20		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Chromium	15	0.16	0.61		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Copper	15	0.23	0.61		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Iron	20000	74	250		mg/Kg	100	7/2/2019 8:30:19 AM	45944
Lead	5.8	0.49	0.51		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Manganese	400	0.042	0.20		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Selenium	ND	2.5	5.1		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Silver	ND	0.065	0.51		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Uranium	ND	4.4	10		mg/Kg	2	7/2/2019 9:16:28 AM	45944
Zinc	53	0.80	5.1		mg/Kg	2	7/2/2019 9:16:28 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Acenaphthylene	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Aniline	ND	1.4	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:50:00 AM

**Lab ID:** 1906G37-006

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Azobenzene	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benz(a)anthracene	ND	1.0	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzo(a)pyrene	ND	0.95	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzo(b)fluoranthene	ND	0.95	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzo(g,h,i)perylene	ND	0.92	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzo(k)fluoranthene	ND	0.97	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzoic acid	ND	1.1	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Benzyl alcohol	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Bis(2-chloroethoxy)methane	ND	1.6	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Bis(2-chloroethyl)ether	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Bis(2-chloroisopropyl)ether	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Bis(2-ethylhexyl)phthalate	ND	1.5	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Bromophenyl phenyl ether	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Butyl benzyl phthalate	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Carbazole	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Chloro-3-methylphenol	ND	1.6	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Chloroaniline	ND	1.5	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Chloronaphthalene	ND	1.3	2.7	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Chlorophenol	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Chlorophenyl phenyl ether	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Chrysene	ND	0.94	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Di-n-butyl phthalate	ND	1.6	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Di-n-octyl phthalate	ND	1.1	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Dibenz(a,h)anthracene	ND	0.97	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Dibenzofuran	ND	1.4	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
1,2-Dichlorobenzene	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
1,3-Dichlorobenzene	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
1,4-Dichlorobenzene	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
3,3'-Dichlorobenzidine	ND	0.95	2.7	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Diethyl phthalate	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Dimethyl phthalate	ND	1.4	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4-Dichlorophenol	ND	1.2	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4-Dimethylphenol	ND	1.2	3.2	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.99	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4-Dinitrophenol	ND	0.78	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4-Dinitrotoluene	ND	1.3	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,6-Dinitrotoluene	ND	1.4	5.4	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Fluoranthene	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:50:00 AM

**Lab ID:** 1906G37-006

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Hexachlorobenzene	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Hexachlorobutadiene	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Hexachlorocyclopentadiene	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Hexachloroethane	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Indeno(1,2,3-cd)pyrene	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Isophorone	ND	1.6	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
1-Methylnaphthalene	ND	1.6	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Methylnaphthalene	ND	1.6	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Methylphenol	ND	1.3	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
3+4-Methylphenol	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
N-Nitrosodi-n-propylamine	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
N-Nitrosodiphenylamine	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Naphthalene	ND	1.6	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Nitroaniline	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
3-Nitroaniline	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Nitroaniline	ND	1.4	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Nitrobenzene	ND	1.5	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2-Nitrophenol	ND	1.5	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
4-Nitrophenol	ND	1.5	2.7	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Pentachlorophenol	ND	1.1	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Phenanthrene	ND	1.2	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Phenol	ND	1.3	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Pyrene	ND	1.0	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Pyridine	ND	1.3	4.3	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
1,2,4-Trichlorobenzene	ND	1.7	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4,5-Trichlorophenol	ND	1.4	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
2,4,6-Trichlorophenol	ND	1.1	2.1	D	mg/Kg	1	7/8/2019 7:20:47 PM	45929
Surr: 2-Fluorophenol	0	24.8-95.2	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	
Surr: Phenol-d5	0	29.9-97.8	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	
Surr: 2,4,6-Tribromophenol	0	35.7-108	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	
Surr: Nitrobenzene-d5	0	32.5-106	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	
Surr: 2-Fluorobiphenyl	0	27.7-114	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	
Surr: 4-Terphenyl-d14	0	15-148	SD	%Rec	1	7/8/2019 7:20:47 PM	45929	

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0041	0.025	mg/Kg	1	7/4/2019 12:55:21 AM	45983
Toluene	ND	0.0048	0.050	mg/Kg	1	7/4/2019 12:55:21 AM	45983
Ethylbenzene	ND	0.0029	0.050	mg/Kg	1	7/4/2019 12:55:21 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.012	0.050	mg/Kg	1	7/4/2019 12:55:21 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:50:00 AM

**Lab ID:** 1906G37-006

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0046	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,3,5-Trimethylbenzene	ND	0.0048	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0051	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0046	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Naphthalene	ND	0.010	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1-Methylnaphthalene	ND	0.029	0.20		mg/Kg	1	7/4/2019 12:55:21 AM	45983
2-Methylnaphthalene	ND	0.022	0.20		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Acetone	ND	0.041	0.75		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Bromobenzene	ND	0.0048	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Bromodichloromethane	ND	0.0046	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Bromoform	ND	0.0045	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/4/2019 12:55:21 AM	45983
2-Butanone	0.10	0.058	0.50	J	mg/Kg	1	7/4/2019 12:55:21 AM	45983
Carbon disulfide	ND	0.016	0.50		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Carbon tetrachloride	ND	0.0047	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Chlorobenzene	ND	0.0064	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Chloroethane	ND	0.0074	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Chloroform	ND	0.0040	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Chloromethane	ND	0.0048	0.15		mg/Kg	1	7/4/2019 12:55:21 AM	45983
2-Chlorotoluene	ND	0.0043	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
4-Chlorotoluene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
cis-1,2-DCE	ND	0.0068	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
cis-1,3-Dichloropropene	ND	0.0042	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0051	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Dibromochloromethane	ND	0.0035	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Dibromomethane	ND	0.0054	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,3-Dichlorobenzene	ND	0.0043	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,4-Dichlorobenzene	ND	0.0042	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Dichlorodifluoromethane	ND	0.012	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1-Dichloroethane	ND	0.0032	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1-Dichloroethene	ND	0.020	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2-Dichloropropane	ND	0.0036	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,3-Dichloropropane	ND	0.0054	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
2,2-Dichloropropane	ND	0.016	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1-Dichloropropene	ND	0.0045	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Hexachlorobutadiene	ND	0.0051	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
2-Hexanone	ND	0.0083	0.50		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Isopropylbenzene	ND	0.0036	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 11:50:00 AM

**Lab ID:** 1906G37-006

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
4-Isopropyltoluene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
4-Methyl-2-pentanone	ND	0.0094	0.50		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Methylene chloride	ND	0.0088	0.15		mg/Kg	1	7/4/2019 12:55:21 AM	45983
n-Butylbenzene	ND	0.0047	0.15		mg/Kg	1	7/4/2019 12:55:21 AM	45983
n-Propylbenzene	ND	0.0040	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
sec-Butylbenzene	ND	0.0056	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Styrene	ND	0.0039	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
tert-Butylbenzene	ND	0.0047	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0034	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0051	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Tetrachloroethene (PCE)	ND	0.0040	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
trans-1,2-DCE	ND	0.0046	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
trans-1,3-Dichloropropene	ND	0.0053	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2,3-Trichlorobenzene	ND	0.0044	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2,4-Trichlorobenzene	ND	0.0050	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1,1-Trichloroethane	ND	0.0045	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,1,2-Trichloroethane	ND	0.0035	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Trichloroethene (TCE)	ND	0.0058	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Trichlorofluoromethane	ND	0.017	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
1,2,3-Trichloropropane	ND	0.0081	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Vinyl chloride	ND	0.0033	0.050		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Xylenes, Total	ND	0.013	0.10		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Surr: Dibromofluoromethane	107		70-130		%Rec	1	7/4/2019 12:55:21 AM	45983
Surr: 1,2-Dichloroethane-d4	107		70-130		%Rec	1	7/4/2019 12:55:21 AM	45983
Surr: Toluene-d8	90.3		70-130		%Rec	1	7/4/2019 12:55:21 AM	45983
Surr: 4-Bromofluorobenzene	91.7		70-130		%Rec	1	7/4/2019 12:55:21 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: DJF	
Gasoline Range Organics (GRO)	ND	1.2	5.0		mg/Kg	1	7/4/2019 12:55:21 AM	45983
Surr: BFB	81.9	0	70-130		%Rec	1	7/4/2019 12:55:21 AM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: Irm	
Petroleum Hydrocarbons, TR	52	2.8	20		mg/Kg	1	7/9/2019	45999

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<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:10:00 PM

**Lab ID:** 1906G37-007

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.010	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1221	ND	0.019	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1232	ND	0.023	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1242	ND	0.013	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1248	ND	0.019	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1254	ND	0.019	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Aroclor 1260	ND	0.0090	0.024		mg/Kg	1	7/10/2019 3:31:20 AM	45963
Surr: Decachlorobiphenyl	61.6	0	25.7-135		%Rec	1	7/10/2019 3:31:20 AM	45963
Surr: Tetrachloro-m-xylene	68.0	0	32.3-138		%Rec	1	7/10/2019 3:31:20 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	ND	2.0	9.9		mg/Kg	1	7/5/2019 6:18:57 PM	45994
Motor Oil Range Organics (MRO)	ND	50	50		mg/Kg	1	7/5/2019 6:18:57 PM	45994
Surr: DNOP	95.4	0	70-130		%Rec	1	7/5/2019 6:18:57 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>CAS</b>		
Fluoride	5.2	0.46	1.5		mg/Kg	5	7/11/2019 5:53:10 PM	46126
Chloride	180	0.51	7.5		mg/Kg	5	7/11/2019 5:53:10 PM	46126
Nitrogen, Nitrate (As N)	6.7	0.75	1.5		mg/Kg	5	7/11/2019 5:53:10 PM	46126
Sulfate	650	14	30		mg/Kg	20	7/11/2019 6:05:34 PM	46126
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.0053	0.0017	0.032	J	mg/Kg	1	7/10/2019 3:34:38 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.9	5.0		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Barium	290	0.047	0.20		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Cadmium	ND	0.049	0.20		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Chromium	14	0.16	0.60		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Copper	7.4	0.23	0.60		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Iron	19000	73	250		mg/Kg	100	7/2/2019 8:32:05 AM	45944
Lead	3.1	0.49	0.50		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Manganese	430	0.042	0.20		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Selenium	ND	2.5	5.0		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Silver	ND	0.064	0.50		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Uranium	ND	4.4	10		mg/Kg	2	7/2/2019 9:18:20 AM	45944
Zinc	47	0.79	5.0		mg/Kg	2	7/2/2019 9:18:20 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Acenaphthylene	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Aniline	ND	0.15	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929

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- PQL Practical Quantitative Limit
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:10:00 PM

**Lab ID:** 1906G37-007

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: DAM	
Anthracene	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Azobenzene	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benz(a)anthracene	ND	0.11	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzo(a)pyrene	ND	0.10	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzo(b)fluoranthene	ND	0.10	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzo(g,h,i)perylene	ND	0.098	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzo(k)fluoranthene	ND	0.10	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzoic acid	ND	0.12	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Benzyl alcohol	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Bis(2-chloroethoxy)methane	ND	0.17	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Bis(2-chloroethyl)ether	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Bis(2-ethylhexyl)phthalate	ND	0.16	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Bromophenyl phenyl ether	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Butyl benzyl phthalate	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Carbazole	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Chloro-3-methylphenol	ND	0.18	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Chloroaniline	ND	0.16	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Chloronaphthalene	ND	0.14	0.29		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Chlorophenol	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Chlorophenyl phenyl ether	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Chrysene	ND	0.10	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Di-n-butyl phthalate	ND	0.17	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Di-n-octyl phthalate	ND	0.12	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Dibenz(a,h)anthracene	ND	0.10	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Dibenzofuran	ND	0.15	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
1,2-Dichlorobenzene	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
1,3-Dichlorobenzene	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
1,4-Dichlorobenzene	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
3,3'-Dichlorobenzidine	ND	0.10	0.29		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Diethyl phthalate	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Dimethyl phthalate	ND	0.15	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4-Dichlorophenol	ND	0.13	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4-Dimethylphenol	ND	0.13	0.34		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.11	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4-Dinitrophenol	ND	0.083	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4-Dinitrotoluene	ND	0.13	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,6-Dinitrotoluene	ND	0.15	0.57		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Fluoranthene	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
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- B Analyte detected in the associated Method Blank
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- P Sample pH Not In Range
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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:10:00 PM

**Lab ID:** 1906G37-007

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Hexachlorobenzene	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Hexachlorobutadiene	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Hexachlorocyclopentadiene	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Hexachloroethane	ND	0.13	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.11	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Isophorone	ND	0.17	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
1-Methylnaphthalene	ND	0.17	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Methylnaphthalene	ND	0.17	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Methylphenol	ND	0.14	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
3+4-Methylphenol	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
N-Nitrosodi-n-propylamine	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
N-Nitrosodiphenylamine	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Naphthalene	ND	0.17	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Nitroaniline	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
3-Nitroaniline	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Nitroaniline	ND	0.15	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Nitrobenzene	ND	0.16	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2-Nitrophenol	ND	0.16	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
4-Nitrophenol	ND	0.16	0.29		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Pentachlorophenol	ND	0.12	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Phenanthrene	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Phenol	ND	0.14	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Pyrene	ND	0.11	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Pyridine	ND	0.14	0.46		mg/Kg	1	7/8/2019 7:51:22 PM	45929
1,2,4-Trichlorobenzene	ND	0.18	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4,5-Trichlorophenol	ND	0.15	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
2,4,6-Trichlorophenol	ND	0.12	0.23		mg/Kg	1	7/8/2019 7:51:22 PM	45929
Surr: 2-Fluorophenol	63.6		24.8-95.2		%Rec	1	7/8/2019 7:51:22 PM	45929
Surr: Phenol-d5	65.9		29.9-97.8		%Rec	1	7/8/2019 7:51:22 PM	45929
Surr: 2,4,6-Tribromophenol	64.5		35.7-108		%Rec	1	7/8/2019 7:51:22 PM	45929
Surr: Nitrobenzene-d5	72.6		32.5-106		%Rec	1	7/8/2019 7:51:22 PM	45929
Surr: 2-Fluorobiphenyl	72.1		27.7-114		%Rec	1	7/8/2019 7:51:22 PM	45929
Surr: 4-Terphenyl-d14	65.5		15-148		%Rec	1	7/8/2019 7:51:22 PM	45929

### EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0039	0.024		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Toluene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Ethylbenzene	ND	0.0028	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.011	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983

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- ND Not Detected at the Reporting Limit
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- S % Recovery outside of range due to dilution or matrix

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# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:10:00 PM

**Lab ID:** 1906G37-007

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0044	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,3,5-Trimethylbenzene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0049	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0044	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Naphthalene	ND	0.0096	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1-Methylnaphthalene	ND	0.028	0.19		mg/Kg	1	7/4/2019 1:25:05 AM	45983
2-Methylnaphthalene	ND	0.021	0.19		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Acetone	ND	0.040	0.72		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Bromobenzene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Bromodichloromethane	ND	0.0044	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Bromoform	ND	0.0043	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Bromomethane	ND	0.012	0.14		mg/Kg	1	7/4/2019 1:25:05 AM	45983
2-Butanone	ND	0.055	0.48		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Carbon disulfide	ND	0.016	0.48		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Carbon tetrachloride	ND	0.0045	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Chlorobenzene	ND	0.0061	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Chloroethane	ND	0.0071	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Chloroform	ND	0.0038	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Chloromethane	ND	0.0046	0.14		mg/Kg	1	7/4/2019 1:25:05 AM	45983
2-Chlorotoluene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
4-Chlorotoluene	ND	0.0039	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
cis-1,2-DCE	ND	0.0066	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
cis-1,3-Dichloropropene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0049	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Dibromochloromethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Dibromomethane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2-Dichlorobenzene	ND	0.0039	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,3-Dichlorobenzene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,4-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Dichlorodifluoromethane	ND	0.011	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1-Dichloroethane	ND	0.0031	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1-Dichloroethene	ND	0.019	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2-Dichloropropane	ND	0.0035	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,3-Dichloropropane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
2,2-Dichloropropane	ND	0.016	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1-Dichloropropene	ND	0.0044	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Hexachlorobutadiene	ND	0.0049	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
2-Hexanone	ND	0.0080	0.48		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Isopropylbenzene	ND	0.0035	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ03

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:10:00 PM

**Lab ID:** 1906G37-007

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
4-Methyl-2-pentanone	ND	0.0090	0.48		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Methylene chloride	ND	0.0085	0.14		mg/Kg	1	7/4/2019 1:25:05 AM	45983
n-Butylbenzene	ND	0.0045	0.14		mg/Kg	1	7/4/2019 1:25:05 AM	45983
n-Propylbenzene	ND	0.0038	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
sec-Butylbenzene	ND	0.0054	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Styrene	ND	0.0038	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
tert-Butylbenzene	ND	0.0045	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0032	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0049	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Tetrachloroethene (PCE)	ND	0.0038	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
trans-1,2-DCE	ND	0.0044	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
trans-1,3-Dichloropropene	ND	0.0051	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2,3-Trichlorobenzene	ND	0.0042	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2,4-Trichlorobenzene	ND	0.0048	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1,1-Trichloroethane	ND	0.0043	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,1,2-Trichloroethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Trichloroethene (TCE)	ND	0.0055	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Trichlorofluoromethane	ND	0.016	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
1,2,3-Trichloropropane	ND	0.0078	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Vinyl chloride	ND	0.0031	0.048		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Xylenes, Total	ND	0.012	0.096		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Surr: Dibromofluoromethane	106		70-130		%Rec	1	7/4/2019 1:25:05 AM	45983
Surr: 1,2-Dichloroethane-d4	105		70-130		%Rec	1	7/4/2019 1:25:05 AM	45983
Surr: Toluene-d8	96.1		70-130		%Rec	1	7/4/2019 1:25:05 AM	45983
Surr: 4-Bromofluorobenzene	94.5		70-130		%Rec	1	7/4/2019 1:25:05 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	4.8		mg/Kg	1	7/4/2019 1:25:05 AM	45983
Surr: BFB	86.4	0	70-130		%Rec	1	7/4/2019 1:25:05 AM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	ND	2.7	19		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:45:00 PM

**Lab ID:** 1906G37-008

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.021	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1221	ND	0.038	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1232	ND	0.047	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1242	ND	0.025	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1248	ND	0.038	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1254	ND	0.038	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Aroclor 1260	ND	0.018	0.048		mg/Kg	1	7/10/2019 4:04:20 AM	45963
Surr: Decachlorobiphenyl	113	0	25.7-135		%Rec	1	7/10/2019 4:04:20 AM	45963
Surr: Tetrachloro-m-xylene	130	0	32.3-138		%Rec	1	7/10/2019 4:04:20 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	490	1.8	8.9		mg/Kg	1	7/8/2019 7:31:56 PM	45994
Motor Oil Range Organics (MRO)	480	45	45		mg/Kg	1	7/8/2019 7:31:56 PM	45994
Surr: DNOP	121	0	70-130		%Rec	1	7/8/2019 7:31:56 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>CAS</b>		
Fluoride	14	0.46	1.5		mg/Kg	5	7/11/2019 6:17:59 PM	46126
Chloride	300	2.0	30		mg/Kg	20	7/11/2019 6:30:24 PM	46126
Nitrogen, Nitrate (As N)	4.0	0.75	1.5		mg/Kg	5	7/11/2019 6:17:59 PM	46126
Sulfate	1500	14	30		mg/Kg	20	7/11/2019 6:30:24 PM	46126
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.077	0.0017	0.031		mg/Kg	1	7/10/2019 3:36:41 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.9	5.0		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Barium	350	0.047	0.20		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Cadmium	ND	0.049	0.20		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Chromium	16	0.16	0.60		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Copper	7.0	0.23	0.60		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Iron	17000	73	250		mg/Kg	100	7/2/2019 8:33:51 AM	45944
Lead	20	0.49	0.50		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Manganese	430	0.042	0.20		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Selenium	ND	2.5	5.0		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Silver	ND	0.064	0.50		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Uranium	ND	4.4	10		mg/Kg	2	7/2/2019 9:20:12 AM	45944
Zinc	49	0.80	5.0		mg/Kg	2	7/2/2019 9:20:12 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Acenaphthylene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Aniline	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:45:00 PM

**Lab ID:** 1906G37-008

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Azobenzene	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benz(a)anthracene	1.1	0.98	2.0	JD	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzo(a)pyrene	ND	0.90	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzo(b)fluoranthene	ND	0.90	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzo(g,h,i)perylene	ND	0.87	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzo(k)fluoranthene	ND	0.92	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzoic acid	1.1	1.0	5.1	JD	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Benzyl alcohol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Bis(2-chloroethoxy)methane	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Bis(2-chloroethyl)ether	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Bis(2-chloroisopropyl)ether	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Bis(2-ethylhexyl)phthalate	ND	1.5	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Bromophenyl phenyl ether	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Butyl benzyl phthalate	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Carbazole	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Chloro-3-methylphenol	ND	1.6	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Chloroaniline	ND	1.4	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Chloronaphthalene	ND	1.3	2.5	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Chlorophenol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Chlorophenyl phenyl ether	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Chrysene	ND	0.89	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Di-n-butyl phthalate	ND	1.5	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Di-n-octyl phthalate	ND	1.0	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Dibenz(a,h)anthracene	ND	0.92	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Dibenzofuran	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
1,2-Dichlorobenzene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
1,3-Dichlorobenzene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
1,4-Dichlorobenzene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
3,3'-Dichlorobenzidine	ND	0.90	2.5	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Diethyl phthalate	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Dimethyl phthalate	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4-Dichlorophenol	ND	1.2	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4-Dimethylphenol	ND	1.1	3.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.94	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4-Dinitrophenol	ND	0.74	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4-Dinitrotoluene	ND	1.2	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,6-Dinitrotoluene	ND	1.3	5.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Fluoranthene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:45:00 PM

**Lab ID:** 1906G37-008

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Hexachlorobenzene	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Hexachlorobutadiene	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Hexachlorocyclopentadiene	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Hexachloroethane	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Indeno(1,2,3-cd)pyrene	ND	1.0	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Isophorone	ND	1.5	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
1-Methylnaphthalene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Methylnaphthalene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Methylphenol	ND	1.2	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
3+4-Methylphenol	ND	1.2	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
N-Nitrosodi-n-propylamine	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
N-Nitrosodiphenylamine	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Naphthalene	ND	1.5	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Nitroaniline	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
3-Nitroaniline	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Nitroaniline	ND	1.3	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Nitrobenzene	ND	1.4	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2-Nitrophenol	ND	1.4	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
4-Nitrophenol	ND	1.4	2.5	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Pentachlorophenol	ND	1.0	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Phenanthrene	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Phenol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Pyrene	ND	0.95	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Pyridine	ND	1.2	4.1	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
1,2,4-Trichlorobenzene	ND	1.6	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4,5-Trichlorophenol	ND	1.3	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
2,4,6-Trichlorophenol	ND	1.1	2.0	D	mg/Kg	1	7/8/2019 8:21:53 PM	45929
Surr: 2-Fluorophenol	0	24.8-95.2	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	
Surr: Phenol-d5	0	29.9-97.8	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	
Surr: 2,4,6-Tribromophenol	0	35.7-108	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	
Surr: Nitrobenzene-d5	0	32.5-106	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	
Surr: 2-Fluorobiphenyl	0	27.7-114	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	
Surr: 4-Terphenyl-d14	0	15-148	SD	%Rec	1	7/8/2019 8:21:53 PM	45929	

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0041	0.025	mg/Kg	1	7/4/2019 1:54:19 AM	45983
Toluene	ND	0.0047	0.050	mg/Kg	1	7/4/2019 1:54:19 AM	45983
Ethylbenzene	ND	0.0029	0.050	mg/Kg	1	7/4/2019 1:54:19 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.012	0.050	mg/Kg	1	7/4/2019 1:54:19 AM	45983

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:45:00 PM

**Lab ID:** 1906G37-008

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,3,5-Trimethylbenzene	ND	0.0048	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0051	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Naphthalene	ND	0.0099	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1-Methylnaphthalene	ND	0.029	0.20		mg/Kg	1	7/4/2019 1:54:19 AM	45983
2-Methylnaphthalene	ND	0.022	0.20		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Acetone	ND	0.041	0.74		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Bromobenzene	ND	0.0048	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Bromodichloromethane	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Bromoform	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/4/2019 1:54:19 AM	45983
2-Butanone	0.081	0.057	0.50	J	mg/Kg	1	7/4/2019 1:54:19 AM	45983
Carbon disulfide	ND	0.016	0.50		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Carbon tetrachloride	ND	0.0047	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Chlorobenzene	ND	0.0064	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Chloroethane	ND	0.0073	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Chloroform	ND	0.0040	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Chloromethane	ND	0.0047	0.15		mg/Kg	1	7/4/2019 1:54:19 AM	45983
2-Chlorotoluene	ND	0.0043	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
4-Chlorotoluene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
cis-1,2-DCE	ND	0.0068	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
cis-1,3-Dichloropropene	ND	0.0042	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0051	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Dibromochloromethane	ND	0.0035	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Dibromomethane	ND	0.0053	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,3-Dichlorobenzene	ND	0.0043	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,4-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Dichlorodifluoromethane	ND	0.012	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1-Dichloroethane	ND	0.0032	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1-Dichloroethene	ND	0.020	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2-Dichloropropane	ND	0.0036	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,3-Dichloropropane	ND	0.0054	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
2,2-Dichloropropane	ND	0.016	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1-Dichloropropene	ND	0.0045	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Hexachlorobutadiene	ND	0.0050	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
2-Hexanone	ND	0.0082	0.50		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Isopropylbenzene	ND	0.0036	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF TZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 12:45:00 PM

**Lab ID:** 1906G37-008

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0041	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
4-Methyl-2-pentanone	ND	0.0094	0.50		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Methylene chloride	ND	0.0088	0.15		mg/Kg	1	7/4/2019 1:54:19 AM	45983
n-Butylbenzene	ND	0.0046	0.15		mg/Kg	1	7/4/2019 1:54:19 AM	45983
n-Propylbenzene	ND	0.0040	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
sec-Butylbenzene	ND	0.0056	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Styrene	ND	0.0039	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
tert-Butylbenzene	ND	0.0047	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0033	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0050	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Tetrachloroethene (PCE)	ND	0.0040	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
trans-1,2-DCE	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
trans-1,3-Dichloropropene	ND	0.0052	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2,3-Trichlorobenzene	ND	0.0044	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2,4-Trichlorobenzene	ND	0.0050	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1,1-Trichloroethane	ND	0.0045	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,1,2-Trichloroethane	ND	0.0035	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Trichloroethene (TCE)	ND	0.0057	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Trichlorofluoromethane	ND	0.017	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
1,2,3-Trichloropropane	ND	0.0080	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Vinyl chloride	ND	0.0032	0.050		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Xylenes, Total	ND	0.013	0.099		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Surr: Dibromofluoromethane	104		70-130		%Rec	1	7/4/2019 1:54:19 AM	45983
Surr: 1,2-Dichloroethane-d4	105		70-130		%Rec	1	7/4/2019 1:54:19 AM	45983
Surr: Toluene-d8	97.7		70-130		%Rec	1	7/4/2019 1:54:19 AM	45983
Surr: 4-Bromofluorobenzene	93.5		70-130		%Rec	1	7/4/2019 1:54:19 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	5.0		mg/Kg	1	7/4/2019 1:54:19 AM	45983
Surr: BFB	86.5	0	70-130		%Rec	1	7/4/2019 1:54:19 AM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	600	2.6	19		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:00:00 PM

**Lab ID:** 1906G37-009

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.011	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1221	ND	0.020	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1232	ND	0.024	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1242	ND	0.013	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1248	ND	0.020	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1254	ND	0.020	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Aroclor 1260	ND	0.0092	0.024		mg/Kg	1	7/10/2019 5:10:26 AM	45963
Surr: Decachlorobiphenyl	73.2	0	25.7-135		%Rec	1	7/10/2019 5:10:26 AM	45963
Surr: Tetrachloro-m-xylene	82.0	0	32.3-138		%Rec	1	7/10/2019 5:10:26 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	ND	2.0	10		mg/Kg	1	7/5/2019 7:03:24 PM	45994
Motor Oil Range Organics (MRO)	ND	50	50		mg/Kg	1	7/5/2019 7:03:24 PM	45994
Surr: DNOP	94.7	0	70-130		%Rec	1	7/5/2019 7:03:24 PM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>CAS</b>		
Fluoride	2.4	0.46	1.5		mg/Kg	5	7/11/2019 6:42:49 PM	46126
Chloride	280	2.1	30		mg/Kg	20	7/11/2019 6:55:14 PM	46126
Nitrogen, Nitrate (As N)	3.1	0.75	1.5		mg/Kg	5	7/11/2019 6:42:49 PM	46126
Sulfate	550	3.4	7.5		mg/Kg	5	7/11/2019 6:42:49 PM	46126
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.0043	0.0018	0.032	J	mg/Kg	1	7/10/2019 3:38:45 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.8	4.9		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Barium	260	0.046	0.20		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Cadmium	ND	0.048	0.20		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Chromium	15	0.16	0.59		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Copper	3.9	0.22	0.59		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Iron	18000	72	250		mg/Kg	100	7/2/2019 8:35:36 AM	45944
Lead	3.0	0.48	0.49		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Manganese	400	0.041	0.20		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Selenium	3.5	2.5	4.9	J	mg/Kg	2	7/2/2019 9:22:03 AM	45944
Silver	ND	0.063	0.49		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Uranium	ND	4.3	9.8		mg/Kg	2	7/2/2019 9:22:03 AM	45944
Zinc	24	0.78	4.9		mg/Kg	2	7/2/2019 9:22:03 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.28	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Acenaphthylene	ND	0.26	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Aniline	ND	0.30	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:00:00 PM

**Lab ID:** 1906G37-009

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Anthracene	ND	0.25	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Azobenzene	ND	0.33	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benz(a)anthracene	ND	0.23	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzo(a)pyrene	ND	0.21	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzo(b)fluoranthene	ND	0.21	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzo(g,h,i)perylene	ND	0.20	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzo(k)fluoranthene	ND	0.21	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzoic acid	0.24	0.24	1.2	JD	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Benzyl alcohol	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Bis(2-chloroethoxy)methane	ND	0.35	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Bis(2-chloroethyl)ether	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.27	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Bis(2-ethylhexyl)phthalate	ND	0.34	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Bromophenyl phenyl ether	ND	0.28	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Butyl benzyl phthalate	ND	0.24	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Carbazole	ND	0.28	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Chloro-3-methylphenol	ND	0.36	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Chloroaniline	ND	0.33	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Chloronaphthalene	ND	0.29	0.59	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Chlorophenol	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Chlorophenyl phenyl ether	ND	0.26	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Chrysene	ND	0.21	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Di-n-butyl phthalate	ND	0.35	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Di-n-octyl phthalate	ND	0.24	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Dibenz(a,h)anthracene	ND	0.21	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Dibenzofuran	ND	0.31	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
1,2-Dichlorobenzene	ND	0.28	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
1,3-Dichlorobenzene	ND	0.25	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
1,4-Dichlorobenzene	ND	0.25	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
3,3'-Dichlorobenzidine	ND	0.21	0.59	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Diethyl phthalate	ND	0.34	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Dimethyl phthalate	ND	0.31	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4-Dichlorophenol	ND	0.27	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4-Dimethylphenol	ND	0.26	0.71	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.22	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4-Dinitrophenol	ND	0.17	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4-Dinitrotoluene	ND	0.28	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,6-Dinitrotoluene	ND	0.31	1.2	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Fluoranthene	ND	0.26	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:00:00 PM

**Lab ID:** 1906G37-009

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	0.27	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Hexachlorobenzene	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Hexachlorobutadiene	ND	0.33	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Hexachlorocyclopentadiene	ND	0.27	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Hexachloroethane	ND	0.26	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.23	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Isophorone	ND	0.35	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
1-Methylnaphthalene	ND	0.35	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Methylnaphthalene	ND	0.34	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Methylphenol	ND	0.28	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
3+4-Methylphenol	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
N-Nitrosodi-n-propylamine	ND	0.34	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
N-Nitrosodiphenylamine	ND	0.25	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Naphthalene	ND	0.36	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Nitroaniline	ND	0.34	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
3-Nitroaniline	ND	0.33	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Nitroaniline	ND	0.30	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Nitrobenzene	ND	0.33	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2-Nitrophenol	ND	0.32	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
4-Nitrophenol	ND	0.32	0.59	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Pentachlorophenol	ND	0.24	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Phenanthrene	ND	0.26	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Phenol	ND	0.29	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Pyrene	ND	0.22	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Pyridine	ND	0.28	0.94	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
1,2,4-Trichlorobenzene	ND	0.37	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4,5-Trichlorophenol	ND	0.31	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
2,4,6-Trichlorophenol	ND	0.25	0.47	D	mg/Kg	1	7/8/2019 8:52:17 PM	45929
Surr: 2-Fluorophenol	72.5		24.8-95.2	D	%Rec	1	7/8/2019 8:52:17 PM	45929
Surr: Phenol-d5	77.1		29.9-97.8	D	%Rec	1	7/8/2019 8:52:17 PM	45929
Surr: 2,4,6-Tribromophenol	74.0		35.7-108	D	%Rec	1	7/8/2019 8:52:17 PM	45929
Surr: Nitrobenzene-d5	88.1		32.5-106	D	%Rec	1	7/8/2019 8:52:17 PM	45929
Surr: 2-Fluorobiphenyl	83.8		27.7-114	D	%Rec	1	7/8/2019 8:52:17 PM	45929
Surr: 4-Terphenyl-d14	83.7		15-148	D	%Rec	1	7/8/2019 8:52:17 PM	45929

### EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0040	0.025		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Toluene	ND	0.0047	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Ethylbenzene	ND	0.0029	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.012	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:00:00 PM

**Lab ID:** 1906G37-009

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0045	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,3,5-Trimethylbenzene	ND	0.0048	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0050	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0045	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Naphthalene	ND	0.0098	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1-Methylnaphthalene	ND	0.028	0.20		mg/Kg	1	7/4/2019 2:24:18 AM	45983
2-Methylnaphthalene	ND	0.021	0.20		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Acetone	ND	0.041	0.74		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Bromobenzene	ND	0.0047	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Bromodichloromethane	ND	0.0045	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Bromoform	ND	0.0044	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Bromomethane	ND	0.012	0.15		mg/Kg	1	7/4/2019 2:24:18 AM	45983
2-Butanone	0.096	0.057	0.49	J	mg/Kg	1	7/4/2019 2:24:18 AM	45983
Carbon disulfide	ND	0.016	0.49		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Carbon tetrachloride	ND	0.0047	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Chlorobenzene	ND	0.0063	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Chloroethane	ND	0.0072	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Chloroform	ND	0.0039	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Chloromethane	ND	0.0047	0.15		mg/Kg	1	7/4/2019 2:24:18 AM	45983
2-Chlorotoluene	ND	0.0043	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
4-Chlorotoluene	ND	0.0040	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
cis-1,2-DCE	ND	0.0067	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
cis-1,3-Dichloropropene	ND	0.0041	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0050	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Dibromochloromethane	ND	0.0035	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Dibromomethane	ND	0.0053	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2-Dichlorobenzene	ND	0.0040	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,3-Dichlorobenzene	ND	0.0043	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,4-Dichlorobenzene	ND	0.0041	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Dichlorodifluoromethane	ND	0.011	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1-Dichloroethane	ND	0.0031	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1-Dichloroethene	ND	0.020	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2-Dichloropropane	ND	0.0036	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,3-Dichloropropane	ND	0.0053	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
2,2-Dichloropropane	ND	0.016	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1-Dichloropropene	ND	0.0045	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Hexachlorobutadiene	ND	0.0050	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
2-Hexanone	ND	0.0082	0.49		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Isopropylbenzene	ND	0.0035	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF VZ04

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:00:00 PM

**Lab ID:** 1906G37-009

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0041	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
4-Methyl-2-pentanone	ND	0.0093	0.49		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Methylene chloride	ND	0.0087	0.15		mg/Kg	1	7/4/2019 2:24:18 AM	45983
n-Butylbenzene	ND	0.0046	0.15		mg/Kg	1	7/4/2019 2:24:18 AM	45983
n-Propylbenzene	ND	0.0039	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
sec-Butylbenzene	ND	0.0055	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Styrene	ND	0.0039	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
tert-Butylbenzene	ND	0.0046	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0033	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0050	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Tetrachloroethene (PCE)	ND	0.0039	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
trans-1,2-DCE	ND	0.0045	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
trans-1,3-Dichloropropene	ND	0.0052	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2,3-Trichlorobenzene	ND	0.0043	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2,4-Trichlorobenzene	ND	0.0050	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1,1-Trichloroethane	ND	0.0044	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,1,2-Trichloroethane	ND	0.0035	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Trichloroethene (TCE)	ND	0.0057	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Trichlorofluoromethane	ND	0.017	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
1,2,3-Trichloropropane	ND	0.0079	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Vinyl chloride	ND	0.0032	0.049		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Xylenes, Total	ND	0.012	0.098		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Surr: Dibromofluoromethane	106		70-130		%Rec	1	7/4/2019 2:24:18 AM	45983
Surr: 1,2-Dichloroethane-d4	102		70-130		%Rec	1	7/4/2019 2:24:18 AM	45983
Surr: Toluene-d8	96.8		70-130		%Rec	1	7/4/2019 2:24:18 AM	45983
Surr: 4-Bromofluorobenzene	93.5		70-130		%Rec	1	7/4/2019 2:24:18 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	4.9		mg/Kg	1	7/4/2019 2:24:18 AM	45983
Surr: BFB	93.7	0	70-130		%Rec	1	7/4/2019 2:24:18 AM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	ND	2.7	20		mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF DUP01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019

**Lab ID:** 1906G37-010

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8082A: PCB'S</b>								
						Analyst: <b>TOM</b>		
Aroclor 1016	ND	0.010	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1221	ND	0.019	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1232	ND	0.023	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1242	ND	0.013	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1248	ND	0.019	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1254	ND	0.019	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Aroclor 1260	ND	0.0090	0.024		mg/Kg	1	7/10/2019 5:43:25 AM	45963
Surr: Decachlorobiphenyl	71.2	0	25.7-135		%Rec	1	7/10/2019 5:43:25 AM	45963
Surr: Tetrachloro-m-xylene	79.6	0	32.3-138		%Rec	1	7/10/2019 5:43:25 AM	45963
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>								
						Analyst: <b>BRM</b>		
Diesel Range Organics (DRO)	24	2.0	9.9		mg/Kg	1	7/10/2019 11:18:34 AM	45994
Motor Oil Range Organics (MRO)	ND	49	49		mg/Kg	1	7/10/2019 11:18:34 AM	45994
Surr: DNOP	101	0	70-130		%Rec	1	7/10/2019 11:18:34 AM	45994
<b>EPA METHOD 300.0: ANIONS</b>								
						Analyst: <b>CAS</b>		
Fluoride	7.3	0.46	1.5		mg/Kg	5	7/11/2019 7:07:39 PM	46126
Chloride	140	0.51	7.5		mg/Kg	5	7/11/2019 7:07:39 PM	46126
Nitrogen, Nitrate (As N)	4.5	0.75	1.5		mg/Kg	5	7/11/2019 7:07:39 PM	46126
Sulfate	990	14	30		mg/Kg	20	7/11/2019 7:20:03 PM	46126
<b>EPA METHOD 7471: MERCURY</b>								
						Analyst: <b>JLF</b>		
Mercury	0.0068	0.0017	0.032	J	mg/Kg	1	7/10/2019 3:40:49 PM	46081
<b>EPA METHOD 6010B: SOIL METALS</b>								
						Analyst: <b>bcv</b>		
Arsenic	ND	2.8	4.9		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Barium	350	0.046	0.20		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Cadmium	ND	0.048	0.20		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Chromium	13	0.16	0.59		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Copper	4.0	0.22	0.59		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Iron	17000	71	250		mg/Kg	100	7/2/2019 8:37:22 AM	45944
Lead	2.9	0.48	0.49		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Manganese	450	0.041	0.20		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Selenium	3.3	2.5	4.9	J	mg/Kg	2	7/2/2019 9:23:55 AM	45944
Silver	ND	0.063	0.49		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Uranium	ND	4.3	9.8		mg/Kg	2	7/2/2019 9:23:55 AM	45944
Zinc	24	0.78	4.9		mg/Kg	2	7/2/2019 9:23:55 AM	45944
<b>EPA METHOD 8270C: SEMIVOLATILES</b>								
						Analyst: <b>DAM</b>		
Acenaphthene	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Acenaphthylene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Aniline	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF DUP01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019

**Lab ID:** 1906G37-010

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: DAM	
Anthracene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Azobenzene	ND	0.16	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benz(a)anthracene	ND	0.11	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzo(a)pyrene	ND	0.10	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzo(b)fluoranthene	ND	0.10	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzo(g,h,i)perylene	ND	0.10	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzo(k)fluoranthene	ND	0.11	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzoic acid	0.12	0.12	0.59	J	mg/Kg	1	7/8/2019 9:22:35 PM	45929
Benzyl alcohol	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Bis(2-chloroethoxy)methane	ND	0.17	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Bis(2-chloroethyl)ether	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Bis(2-chloroisopropyl)ether	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Bis(2-ethylhexyl)phthalate	ND	0.17	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Bromophenyl phenyl ether	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Butyl benzyl phthalate	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Carbazole	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Chloro-3-methylphenol	ND	0.18	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Chloroaniline	ND	0.17	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Chloronaphthalene	ND	0.15	0.29		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Chlorophenol	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Chlorophenyl phenyl ether	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Chrysene	ND	0.10	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Di-n-butyl phthalate	ND	0.17	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Di-n-octyl phthalate	ND	0.12	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Dibenz(a,h)anthracene	ND	0.11	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Dibenzofuran	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
1,2-Dichlorobenzene	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
1,3-Dichlorobenzene	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
1,4-Dichlorobenzene	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
3,3'-Dichlorobenzidine	ND	0.10	0.29		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Diethyl phthalate	ND	0.17	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Dimethyl phthalate	ND	0.16	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4-Dichlorophenol	ND	0.14	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4-Dimethylphenol	ND	0.13	0.35		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4,6-Dinitro-2-methylphenol	ND	0.11	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4-Dinitrophenol	ND	0.085	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4-Dinitrotoluene	ND	0.14	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,6-Dinitrotoluene	ND	0.15	0.59		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Fluoranthene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929

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- ND Not Detected at the Reporting Limit
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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF DUP01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019

**Lab ID:** 1906G37-010

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8270C: SEMIVOLATILES</b>							Analyst: <b>DAM</b>	
Fluorene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Hexachlorobenzene	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Hexachlorobutadiene	ND	0.16	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Hexachlorocyclopentadiene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Hexachloroethane	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Indeno(1,2,3-cd)pyrene	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Isophorone	ND	0.17	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
1-Methylnaphthalene	ND	0.18	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Methylnaphthalene	ND	0.17	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Methylphenol	ND	0.14	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
3+4-Methylphenol	ND	0.14	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
N-Nitrosodi-n-propylamine	ND	0.17	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
N-Nitrosodiphenylamine	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Naphthalene	ND	0.18	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Nitroaniline	ND	0.17	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
3-Nitroaniline	ND	0.16	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Nitroaniline	ND	0.15	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Nitrobenzene	ND	0.16	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2-Nitrophenol	ND	0.16	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
4-Nitrophenol	ND	0.16	0.29		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Pentachlorophenol	ND	0.12	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Phenanthrene	ND	0.13	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Phenol	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Pyrene	ND	0.11	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Pyridine	ND	0.14	0.47		mg/Kg	1	7/8/2019 9:22:35 PM	45929
1,2,4-Trichlorobenzene	ND	0.18	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4,5-Trichlorophenol	ND	0.15	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
2,4,6-Trichlorophenol	ND	0.12	0.23		mg/Kg	1	7/8/2019 9:22:35 PM	45929
Surr: 2-Fluorophenol	54.9		24.8-95.2		%Rec	1	7/8/2019 9:22:35 PM	45929
Surr: Phenol-d5	59.0		29.9-97.8		%Rec	1	7/8/2019 9:22:35 PM	45929
Surr: 2,4,6-Tribromophenol	59.4		35.7-108		%Rec	1	7/8/2019 9:22:35 PM	45929
Surr: Nitrobenzene-d5	64.1		32.5-106		%Rec	1	7/8/2019 9:22:35 PM	45929
Surr: 2-Fluorobiphenyl	65.6		27.7-114		%Rec	1	7/8/2019 9:22:35 PM	45929
Surr: 4-Terphenyl-d14	62.3		15-148		%Rec	1	7/8/2019 9:22:35 PM	45929

## EPA METHOD 8260B: VOLATILES

Analyst: **DJF**

Benzene	ND	0.0039	0.024		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Toluene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Ethylbenzene	ND	0.0028	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Methyl tert-butyl ether (MTBE)	ND	0.011	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF DUP01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019

**Lab ID:** 1906G37-010

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: DJF	
1,2,4-Trimethylbenzene	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,3,5-Trimethylbenzene	ND	0.0047	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2-Dichloroethane (EDC)	ND	0.0049	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2-Dibromoethane (EDB)	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Naphthalene	ND	0.0097	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1-Methylnaphthalene	ND	0.028	0.19		mg/Kg	1	7/4/2019 2:53:31 AM	45983
2-Methylnaphthalene	ND	0.021	0.19		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Acetone	ND	0.040	0.72		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Bromobenzene	ND	0.0046	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Bromodichloromethane	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Bromoform	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Bromomethane	ND	0.012	0.14		mg/Kg	1	7/4/2019 2:53:31 AM	45983
2-Butanone	0.10	0.056	0.48	J	mg/Kg	1	7/4/2019 2:53:31 AM	45983
Carbon disulfide	ND	0.016	0.48		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Carbon tetrachloride	ND	0.0046	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Chlorobenzene	ND	0.0062	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Chloroethane	ND	0.0071	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Chloroform	ND	0.0039	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Chloromethane	ND	0.0046	0.14		mg/Kg	1	7/4/2019 2:53:31 AM	45983
2-Chlorotoluene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
4-Chlorotoluene	ND	0.0039	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
cis-1,2-DCE	ND	0.0066	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
cis-1,3-Dichloropropene	ND	0.0041	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2-Dibromo-3-chloropropane	ND	0.0049	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Dibromochloromethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Dibromomethane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,3-Dichlorobenzene	ND	0.0042	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,4-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Dichlorodifluoromethane	ND	0.011	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1-Dichloroethane	ND	0.0031	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1-Dichloroethene	ND	0.019	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2-Dichloropropane	ND	0.0035	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,3-Dichloropropane	ND	0.0052	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
2,2-Dichloropropane	ND	0.016	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1-Dichloropropene	ND	0.0044	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Hexachlorobutadiene	ND	0.0049	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
2-Hexanone	ND	0.0080	0.48		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Isopropylbenzene	ND	0.0035	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1906G37

Date Reported: 10/3/2019

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF DUP01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019

**Lab ID:** 1906G37-010

**Matrix:** SOIL

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>DJF</b>	
4-Isopropyltoluene	ND	0.0040	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
4-Methyl-2-pentanone	ND	0.0091	0.48		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Methylene chloride	ND	0.0085	0.14		mg/Kg	1	7/4/2019 2:53:31 AM	45983
n-Butylbenzene	ND	0.0045	0.14		mg/Kg	1	7/4/2019 2:53:31 AM	45983
n-Propylbenzene	ND	0.0038	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
sec-Butylbenzene	ND	0.0054	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Styrene	ND	0.0038	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
tert-Butylbenzene	ND	0.0045	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1,1,2-Tetrachloroethane	ND	0.0033	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1,2,2-Tetrachloroethane	ND	0.0049	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Tetrachloroethene (PCE)	ND	0.0039	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
trans-1,2-DCE	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
trans-1,3-Dichloropropene	ND	0.0051	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2,3-Trichlorobenzene	ND	0.0042	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2,4-Trichlorobenzene	ND	0.0049	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1,1-Trichloroethane	ND	0.0044	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,1,2-Trichloroethane	ND	0.0034	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Trichloroethene (TCE)	ND	0.0056	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Trichlorofluoromethane	ND	0.016	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
1,2,3-Trichloropropane	ND	0.0078	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Vinyl chloride	ND	0.0031	0.048		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Xylenes, Total	ND	0.012	0.096		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Surr: Dibromofluoromethane	102		70-130		%Rec	1	7/4/2019 2:53:31 AM	45983
Surr: 1,2-Dichloroethane-d4	101		70-130		%Rec	1	7/4/2019 2:53:31 AM	45983
Surr: Toluene-d8	99.6		70-130		%Rec	1	7/4/2019 2:53:31 AM	45983
Surr: 4-Bromofluorobenzene	98.5		70-130		%Rec	1	7/4/2019 2:53:31 AM	45983
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>	
Gasoline Range Organics (GRO)	ND	1.2	4.8		mg/Kg	1	7/4/2019 2:53:31 AM	45983
Surr: BFB	87.8	0	70-130		%Rec	1	7/4/2019 2:53:31 AM	45983
<b>EPA METHOD 418.1: TPH</b>							Analyst: <b>Irm</b>	
Petroleum Hydrocarbons, TR	5.6	2.7	20	J	mg/Kg	1	7/9/2019	45999

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1906G37**

Date Reported: **10/3/2019**

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF FB01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:15:00 PM

**Lab ID:** 1906G37-011

**Matrix:** AQUEOUS

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>RAA</b>	
Benzene	ND	0.17	1.0		µg/L	1	7/8/2019 3:35:00 PM	SL6122
Toluene	ND	0.35	1.0		µg/L	1	7/8/2019 3:35:00 PM	SL6122
Ethylbenzene	ND	0.13	1.0		µg/L	1	7/8/2019 3:35:00 PM	SL6122
Xylenes, Total	ND	0.45	1.5		µg/L	1	7/8/2019 3:35:00 PM	SL6122
Surr: 1,2-Dichloroethane-d4	120	0	70-130		%Rec	1	7/8/2019 3:35:00 PM	SL6122
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	7/8/2019 3:35:00 PM	SL6122
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	7/8/2019 3:35:00 PM	SL6122
Surr: Toluene-d8	94.6	0	70-130		%Rec	1	7/8/2019 3:35:00 PM	SL6122

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1906G37**

Date Reported: **10/3/2019**

**CLIENT:** Marathon

**Client Sample ID:** CENTRAL OCD LF EB01

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:** 6/27/2019 1:25:00 PM

**Lab ID:** 1906G37-012

**Matrix:** AQUEOUS

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>RAA</b>	
Benzene	ND	0.17	1.0		µg/L	1	7/8/2019 3:59:00 PM	SL6122
Toluene	ND	0.35	1.0		µg/L	1	7/8/2019 3:59:00 PM	SL6122
Ethylbenzene	ND	0.13	1.0		µg/L	1	7/8/2019 3:59:00 PM	SL6122
Xylenes, Total	ND	0.45	1.5		µg/L	1	7/8/2019 3:59:00 PM	SL6122
Surr: 1,2-Dichloroethane-d4	115	0	70-130		%Rec	1	7/8/2019 3:59:00 PM	SL6122
Surr: 4-Bromofluorobenzene	98.9	0	70-130		%Rec	1	7/8/2019 3:59:00 PM	SL6122
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	7/8/2019 3:59:00 PM	SL6122
Surr: Toluene-d8	94.7	0	70-130		%Rec	1	7/8/2019 3:59:00 PM	SL6122

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1906G37**

Date Reported: **10/3/2019**

**CLIENT:** Marathon

**Client Sample ID:** Trip Blank

**Project:** OCD Central Landfarm Semiannual Sam

**Collection Date:**

**Lab ID:** 1906G37-013

**Matrix:** AQUEOUS

**Received Date:** 6/27/2019 4:20:00 PM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>RAA</b>	
Benzene	ND	0.17	1.0		µg/L	1	7/8/2019 4:23:00 PM	SL6122
Toluene	ND	0.35	1.0		µg/L	1	7/8/2019 4:23:00 PM	SL6122
Ethylbenzene	ND	0.13	1.0		µg/L	1	7/8/2019 4:23:00 PM	SL6122
Xylenes, Total	ND	0.45	1.5		µg/L	1	7/8/2019 4:23:00 PM	SL6122
Surr: 1,2-Dichloroethane-d4	116	0	70-130		%Rec	1	7/8/2019 4:23:00 PM	SL6122
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	7/8/2019 4:23:00 PM	SL6122
Surr: Dibromofluoromethane	112	0	70-130		%Rec	1	7/8/2019 4:23:00 PM	SL6122
Surr: Toluene-d8	94.4	0	70-130		%Rec	1	7/8/2019 4:23:00 PM	SL6122

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		





Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:12	<u>WG1303753</u>







Collected date/time: 06/27/19 10:00

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:13	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39





Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:18	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39





Collected date/time: 06/27/19 11:10

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:19	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39



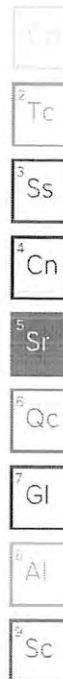


Collected date/time: 06/27/19 11:50

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:20	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39





Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:21	<u>WG1308753</u>







Collected date/time: 06/27/19 12:45

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	ND		0.250	1	07/12/2019 11:22	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39





Collected date/time: 06/27/19 13:00

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	0.269	<u>PI</u>	0.250	1	07/12/2019 11:23	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39





Collected date/time: 06/27/19 00:00

L1114971

Wet Chemistry by Method 9012B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Cyanide	0.887		0.250	1	07/12/2019 11:25	<u>WG1308753</u>



ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L1114971

DATE/TIME:

07/12/19 15:39



WG1308753

Wet Chemistry by Method 9012B

Method Blank (MB)

QUALITY CONTROL SUMMARY

L1114971-01,02,03,04,05,06,07,08,09

ONE LAB. NATIONWIDE



(MB) R3430073-1 07/12/19 10:54

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	mg/kg U	mg/kg 0.0390	mg/kg 0.250	

L112842-01 Original Sample (OS) • Duplicate (DUP)

(OS) L112842-01 07/12/19 11:01 • (DUP) R3430073-3 07/12/19 11:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	mg/kg ND	mg/kg 0.0542	% 1	% 0.000	% 20	% 20

L114971-08 Original Sample (OS) • Duplicate (DUP)

(OS) L114971-08 07/12/19 11:23 • (DUP) R3430073-8 07/12/19 11:24

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Cyanide	mg/kg 0.269	mg/kg 0.000	% 1	% 200	% P1	% 20

Laboratory Control Sample (LCS)

(LCS) R3430073-2 07/12/19 10:55

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	mg/kg 2.50	mg/kg 2.59	% 104	% 50.0-150	

L113860-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L113860-02 07/12/19 11:07 • (MS) R3430073-4 07/12/19 11:08 • (MSD) R3430073-5 07/12/19 11:09

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	mg/kg 1.67	mg/kg ND	mg/kg 1.49	mg/kg 1.47	% 86.4	1	% 75.0-125	% 85.1	% 1.40	% 20	

L114971-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L114971-02 07/12/19 11:13 • (MS) R3430073-6 07/12/19 11:14 • (MSD) R3430073-7 07/12/19 11:15

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	mg/kg 1.67	mg/kg ND	mg/kg 1.51	mg/kg 1.61	% 90.9	1	% 75.0-125	% 96.4	% 5.85	% 20	

ACCOUNT:

Hall Environmental Analysis Laboratory

PROJECT:

SDG:

L114971

DATE/TIME:

07/12/19 15:39

1 Tc

3 Ss

4 Cn

5 Sr

8 Qc

7 Gl

11 Al

9 Sc





## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.





## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1906G37  
Pace Project No.: 30311799

**Sample:** 1906G37-001DCENTRAL **Lab ID:** 30311799001 **Collected:** 06/27/19 09:30 **Received:** 07/02/19 09:30 **Matrix:** Solid  
**OCD LFTZ01**  
**PWS:** **Site ID:** **Sample Type:**

**Results reported on a "dry-weight" basis**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	9.974 ± 2.360 (1.033) C:NA T:NA	pCi/g	07/30/19 13:42	13966-00-2	
Radium-226	EPA 901.1	1.372 ± 0.315 (0.189) C:NA T:NA	pCi/g	07/30/19 13:42	13982-63-3	Ra
Radium-228	EPA 901.1	1.359 ± 0.581 (0.551) C:NA T:NA	pCi/g	07/30/19 13:42	15262-20-1	

**Sample:** 1906G37-002DCENTRAL **Lab ID:** 30311799002 **Collected:** 06/27/19 10:00 **Received:** 07/02/19 09:30 **Matrix:** Solid  
**OCD LFTZ01**  
**PWS:** **Site ID:** **Sample Type:**

**Results reported on a "dry-weight" basis**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	11.644 ± 3.379 (2.324) C:NA T:NA	pCi/g	07/30/19 14:02	13966-00-2	
Radium-226	EPA 901.1	1.322 ± 0.324 (0.155) C:NA T:NA	pCi/g	07/30/19 14:02	13982-63-3	Ra
Radium-228	EPA 901.1	2.012 ± 0.483 (0.261) C:NA T:NA	pCi/g	07/30/19 14:02	15262-20-1	

**Sample:** 1906G37-003DCENTRAL **Lab ID:** 30311799003 **Collected:** 06/27/19 10:50 **Received:** 07/02/19 09:30 **Matrix:** Solid  
**OCD LFTZ02**  
**PWS:** **Site ID:** **Sample Type:**

**Results reported on a "dry-weight" basis**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	8.101 ± 2.195 (1.415) C:NA T:NA	pCi/g	07/30/19 14:21	13966-00-2	
Radium-226	EPA 901.1	0.910 ± 0.237 (0.154) C:NA T:NA	pCi/g	07/30/19 14:21	13982-63-3	Ra
Radium-228	EPA 901.1	1.120 ± 0.419 (0.341) C:NA T:NA	pCi/g	07/30/19 14:21	15262-20-1	

**Sample:** 1906G37-004DCENTRAL **Lab ID:** 30311799004 **Collected:** 06/27/19 11:10 **Received:** 07/02/19 09:30 **Matrix:** Solid  
**OCD LFTZ02**  
**PWS:** **Site ID:** **Sample Type:**

**Results reported on a "dry-weight" basis**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	14.187 ± 3.125 (1.198) C:NA T:NA	pCi/g	07/30/19 14:21	13966-00-2	
Radium-226	EPA 901.1	1.398 ± 0.372 (0.239) C:NA T:NA	pCi/g	07/30/19 14:21	13982-63-3	Ra
Radium-228	EPA 901.1	1.786 ± 0.443 (0.277) C:NA T:NA	pCi/g	07/30/19 14:21	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1906G37  
Pace Project No.: 30311799

**Sample:** 1906G37-006DCENTRAL Lab ID: 30311799005 Collected: 06/27/19 11:50 Received: 07/02/19 09:30 Matrix: Solid  
OCD LFTZ03

PWS: Site ID: Sample Type:

*Results reported on a "dry-weight" basis*

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	10.658 ± 2.105 (0.656) C:NA T:NA	pCi/g	07/30/19 14:41	13966-00-2	
Radium-226	EPA 901.1	1.455 ± 0.301 (0.134) C:NA T:NA	pCi/g	07/30/19 14:41	13982-63-3	Ra
Radium-228	EPA 901.1	1.102 ± 0.410 (0.356) C:NA T:NA	pCi/g	07/30/19 14:41	15262-20-1	

**Sample:** 1906G37-007D Lab ID: 30311799006 Collected: 06/27/19 12:10 Received: 07/02/19 09:30 Matrix: Solid  
CENTRALOCD LFFVZ03

PWS: Site ID: Sample Type:

*Results reported on a "dry-weight" basis*

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	11.742 ± 2.710 (1.134) C:NA T:NA	pCi/g	07/30/19 14:42	13966-00-2	
Radium-226	EPA 901.1	1.282 ± 0.327 (0.212) C:NA T:NA	pCi/g	07/30/19 14:42	13982-63-3	Ra
Radium-228	EPA 901.1	1.819 ± 0.530 (0.262) C:NA T:NA	pCi/g	07/30/19 14:42	15262-20-1	

**Sample:** 1906G37-008D Lab ID: 30311799007 Collected: 06/27/19 12:45 Received: 07/02/19 09:30 Matrix: Solid  
CENTRALOCD LFTZ04

PWS: Site ID: Sample Type:

*Results reported on a "dry-weight" basis*

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	11.766 ± 2.240 (0.635) C:NA T:NA	pCi/g	07/30/19 15:00	13966-00-2	
Radium-226	EPA 901.1	1.207 ± 0.284 (0.149) C:NA T:NA	pCi/g	07/30/19 15:00	13982-63-3	Ra
Radium-228	EPA 901.1	1.201 ± 0.437 (0.364) C:NA T:NA	pCi/g	07/30/19 15:00	15262-20-1	

**Sample:** 1906G37-009DCENTRAL Lab ID: 30311799008 Collected: 06/27/19 13:00 Received: 07/02/19 09:30 Matrix: Solid  
OCD LFFVZ04

PWS: Site ID: Sample Type:

*Results reported on a "dry-weight" basis*

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	12.218 ± 2.741 (1.088) C:NA T:NA	pCi/g	07/30/19 15:01	13966-00-2	
Radium-226	EPA 901.1	1.233 ± 0.276 (0.234) C:NA T:NA	pCi/g	07/30/19 15:01	13982-63-3	Ra
Radium-228	EPA 901.1	1.731 ± 0.446 (0.252) C:NA T:NA	pCi/g	07/30/19 15:01	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1906G37  
Pace Project No.: 30311799

Sample: 1906G37-010DCENTRAL Lab ID: 30311799009 Collected: 06/27/19 00:01 Received: 07/02/19 09:30 Matrix: Solid  
OCD LFDUP

PWS: Site ID: Sample Type:

**Results reported on a "dry-weight" basis**

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Potassium-40	EPA 901.1	12.113 ± 2.436 (0.979) C:NA T:NA	pCi/g	07/30/19 15:17	13966-00-2	
Radium-226	EPA 901.1	1.354 ± 0.288 (0.173) C:NA T:NA	pCi/g	07/30/19 15:17	13982-63-3	Ra
Radium-228	EPA 901.1	1.480 ± 0.392 (0.312) C:NA T:NA	pCi/g	07/30/19 15:17	15262-20-1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 1906G37  
Pace Project No.: 30311799

QC Batch:	352550	Analysis Method:	EPA 901.1
QC Batch Method:	EPA 901.1	Analysis Description:	901.1 Gamma Spec Ingrowth
Associated Lab Samples:	30311799001, 30311799002, 30311799003, 30311799004, 30311799005, 30311799006, 30311799007, 30311799008, 30311799009		

METHOD BLANK:	1712695	Matrix:	Solid
Associated Lab Samples:	30311799001, 30311799002, 30311799003, 30311799004, 30311799005, 30311799006, 30311799007, 30311799008, 30311799009		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Potassium-40	0.000 ± 0.188 (1.927) C:NA T:NA	pCi/g	07/30/19 13:25	
Radium-226	0.046 ± 0.086 (0.148) C:NA T:NA	pCi/g	07/30/19 13:25	Ra
Radium-228	0.000 ± 0.108 (0.392) C:NA T:NA	pCi/g	07/30/19 13:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 1906G37  
Pace Project No.: 30311799

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

Ra The reported Ra-226 results were determined by hermetically sealing the dried, processed sample in an appropriate-sized can. Each sample was stored for a minimum of 21 days to ensure that equilibrium between Ra-226 and daughters Bi-214 and Pb-214 was achieved. Reported Ra-226 results were inferred from gamma peaks attributable to Bi-214 and Pb-214.

## REPORT OF LABORATORY ANALYSIS

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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: 1906G37-002AMS		SampType: MS			TestCode: EPA Method 300.0: Anions					
Client ID:	CENTRAL OCD LF V	Batch ID: 46094			RunNo: 61307					
Prep Date:	7/10/2019	Analysis Date: 7/10/2019			SeqNo: 2078213		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.4	1.5	3.000	3.729	23.7	15	138			
Chloride	280	7.5	30.00	241.1	128	54.5	140			
Nitrogen, Nitrate (As N)	9.8	1.5	15.00	2.368	49.8	54.8	141			S

Sample ID: 1906G37-002AMSD		SampType: MSD		TestCode: EPA Method 300.0: Anions						
Client ID: CENTRAL OCD LF V		Batch ID: 46094		RunNo: 61307						
Prep Date: 7/10/2019		Analysis Date: 7/10/2019		SeqNo: 2078214		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.8	1.5	3.000	3.729	1.33	15	138	16.4	20	S
Chloride	250	7.5	30.00	241.1	43.4	54.5	140	9.47	20	S
Nitrogen, Nitrate (As N)	9.4	1.5	15.00	2.368	47.1	54.8	141	4.20	20	S

Sample ID: <b>MB-46094</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>						
Client ID: <b>PBS</b>		Batch ID: <b>46094</b>		RunNo: <b>61307</b>						
Prep Date: <b>7/10/2019</b>		Analysis Date: <b>7/10/2019</b>		SeqNo: <b>2078230</b>			Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID: <b>LCS-46094</b>		SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>						
Client ID: <b>LCSS</b>		Batch ID: <b>46094</b>		RunNo: <b>61307</b>						
Prep Date: <b>7/10/2019</b>		Analysis Date: <b>7/10/2019</b>		SeqNo: <b>2078231</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.30	1.500	0	110	90	110			
Chloride	14	1.5	15.00	0	92.9	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.2	90	110			
Sulfate	29	1.5	30.00	0	96.5	90	110			

Sample ID: MB-46126		SampType: MBLK		TestCode: EPA Method 300.0: Anions						
Client ID: PBS		Batch ID: 46126		RunNo: 61343						
Prep Date: 7/11/2019		Analysis Date: 7/11/2019		SeqNo: 2079410			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>MB-46126</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46126</b>	RunNo: <b>61343</b>								
Prep Date: <b>7/11/2019</b>	Analysis Date: <b>7/11/2019</b>	SeqNo: <b>2079410</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID: <b>LCS-46126</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46126</b>	RunNo: <b>61343</b>								
Prep Date: <b>7/11/2019</b>	Analysis Date: <b>7/11/2019</b>	SeqNo: <b>2079411</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	103	90	110			
Chloride	14	1.5	15.00	0	93.3	90	110			
Nitrogen, Nitrate (As N)	7.5	0.30	7.500	0	99.4	90	110			
Sulfate	29	1.5	30.00	0	98.1	90	110			

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>MB-45999</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 418.1: TPH</b>
Client ID: <b>PBS</b>	Batch ID: <b>45999</b>	RunNo: <b>61241</b>
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/9/2019</b>	SeqNo: <b>2075997</b> Units: <b>mg/Kg</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	ND	20

Sample ID: <b>LCS-45999</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 418.1: TPH</b>
Client ID: <b>LCSS</b>	Batch ID: <b>45999</b>	RunNo: <b>61241</b>
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/9/2019</b>	SeqNo: <b>2075998</b> Units: <b>mg/Kg</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	110	20 100.0 0 111 54.3 153

Sample ID: <b>1906G37-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 418.1: TPH</b>
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45999</b>	RunNo: <b>61241</b>
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/9/2019</b>	SeqNo: <b>2076001</b> Units: <b>mg/Kg</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	110	19 94.88 0 116 80 120

Sample ID: <b>1906G37-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 418.1: TPH</b>
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45999</b>	RunNo: <b>61241</b>
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/9/2019</b>	SeqNo: <b>2076002</b> Units: <b>mg/Kg</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Petroleum Hydrocarbons, TR	110	19 94.52 0 113 80 120 3.14 20

### Qualifiers:

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D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>MB-45994</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45994</b>	RunNo: <b>61163</b>								
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2072907</b>		Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.3		10.00		83.3	70	130			

Sample ID: <b>LCS-45994</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45994</b>	RunNo: <b>61163</b>								
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2072909</b>		Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	45	10	50.00	0	89.9	63.9	124			
Surr: DNOP	4.0		5.000		80.7	70	130			

Sample ID: <b>1906G37-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45994</b>	RunNo: <b>61157</b>								
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2074746</b>		Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	46	9.2	46.04	0	100	57	142			
Surr: DNOP	4.2		4.604		91.2	70	130			

Sample ID: <b>1906G37-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45994</b>	RunNo: <b>61157</b>								
Prep Date: <b>7/3/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2074747</b>		Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	47	9.1	45.33	0	105	57	142	2.95	20	
Surr: DNOP	4.3		4.533		94.3	70	130	0	0	

### Qualifiers:

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: MB-45963		SampType: MBLK		TestCode: EPA Method 8082A: PCB's						
Client ID: PBS		Batch ID: 45963		RunNo: 61252						
Prep Date: 7/2/2019		Analysis Date: 7/9/2019		SeqNo: 2076333			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.025								
Aroclor 1221	ND	0.025								
Aroclor 1232	ND	0.025								
Aroclor 1242	ND	0.025								
Aroclor 1248	ND	0.025								
Aroclor 1254	ND	0.025								
Aroclor 1260	ND	0.025								
Surr: Decachlorobiphenyl	0.040		0.06250		64.8	25.7	135			
Surr: Tetrachloro-m-xylene	0.047		0.06250		75.2	32.3	138			

Sample ID: <b>LCS-45963</b>		SampType: <b>LCS</b>			TestCode: <b>EPA Method 8082A: PCB's</b>					
Client ID: <b>LCSS</b>		Batch ID: <b>45963</b>			RunNo: <b>61252</b>					
Prep Date: <b>7/2/2019</b>		Analysis Date: <b>7/9/2019</b>			SeqNo: <b>2076334</b>		Units: <b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.11	0.025	0.1250	0	87.6	32	156			
Aroclor 1260	0.086	0.025	0.1250	0	69.1	32.2	111			
Surr: Decachlorobiphenyl	0.048		0.06250		76.8	25.7	135			
Surr: Tetrachloro-m-xylene	0.046		0.06250		72.8	32.3	138			

Sample ID: 1906G37-002AMS		SampType: MS		TestCode: EPA Method 8082A: PCB's						
Client ID: CENTRAL OCD LF V		Batch ID: 45963		RunNo: 61252						
Prep Date: 7/2/2019		Analysis Date: 7/10/2019		SeqNo: 2076343		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.099	0.022	0.1122	0	88.0	33.5	145			
Aroclor 1260	0.11	0.022	0.1122	0	96.6	39.1	160			
Surr: Decachlorobiphenyl	0.047		0.05610		84.4	25.7	135			
Surr: Tetrachloro-m-xylene	0.042		0.05610		75.6	32.3	138			

Sample ID: 1906G37-002AMSD		SampType: MSD		TestCode: EPA Method 8082A: PCB's						
Client ID: CENTRAL OCD LF V		Batch ID: 45963		RunNo: 61252						
Prep Date: 7/2/2019		Analysis Date: 7/10/2019		SeqNo: 2076344		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.088	0.021	0.1057	0	82.9	33.5	145	11.9	36.6	
Aroclor 1260	0.088	0.021	0.1057	0	83.0	39.1	160	21.1	39	
Surr: Decachlorobiphenyl	0.036		0.05283		68.8	25.7	135	0	0	
Surr: Tetrachloro-m-xylene	0.041		0.05283		77.6	32.3	138	0	0	

### Qualifiers:

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D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>mb-45983</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45983</b>	RunNo: <b>61138</b>								
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>	SeqNo: <b>2072389</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	0.068	0.50								J
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

### Qualifiers:

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ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
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B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>mb-45983</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45983</b>	RunNo: <b>61138</b>								
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>	SeqNo: <b>2072389</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.49		0.5000		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.6	70	130			

Sample ID: <b>lcs-45983</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45983</b>	RunNo: <b>61138</b>								
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>	SeqNo: <b>2072390</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	118	70	130			
Toluene	0.95	0.050	1.000	0	94.9	70	130			
Chlorobenzene	0.92	0.050	1.000	0	92.5	70	130			

### Qualifiers:

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H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>Ics-45983</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072390</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.1	0.050	1.000	0	115	50.8	164			
Trichloroethene (TCE)	0.97	0.050	1.000	0	96.8	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.46		0.5000		92.6	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.9	70	130			

Sample ID: <b>1906g37-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>							
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072393</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9960	0	124	68.9	131			
Toluene	1.0	0.050	0.9960	0	104	64.3	137			
Chlorobenzene	0.97	0.050	0.9960	0	97.1	65.9	143			
1,1-Dichloroethene	1.2	0.050	0.9960	0	124	53.4	150			
Trichloroethene (TCE)	0.99	0.050	0.9960	0	99.8	70	130			
Surr: Dibromofluoromethane	0.52		0.4980		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.4980		105	70	130			
Surr: Toluene-d8	0.49		0.4980		98.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4980		91.6	70	130			

Sample ID: <b>1906g37-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles</b>							
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072394</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	0.9843	0	125	68.9	131	0.768	20	
Toluene	1.0	0.049	0.9843	0	102	64.3	137	3.49	20	
Chlorobenzene	1.0	0.049	0.9843	0	102	65.9	143	3.63	20	
1,1-Dichloroethene	1.2	0.049	0.9843	0	120	53.4	150	3.96	20	
Trichloroethene (TCE)	1.0	0.049	0.9843	0	104	70	130	3.21	20	
Surr: Dibromofluoromethane	0.51		0.4921		103	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.51		0.4921		104	70	130	0	0	
Surr: Toluene-d8	0.46		0.4921		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.45		0.4921		90.8	70	130	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>SL61220</b>		RunNo: <b>61220</b>							
Prep Date:	Analysis Date: <b>7/8/2019</b>		SeqNo: <b>2075444</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>PBW</b>	Batch ID: <b>SL61220</b>		RunNo: <b>61220</b>							
Prep Date:	Analysis Date: <b>7/8/2019</b>		SeqNo: <b>2075445</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

### Qualifiers:

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D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>lcs-45929</b>	SampType: <b>LCS</b>			TestCode: <b>EPA Method 8270C: Semivolatiles</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>45929</b>			RunNo: <b>61183</b>						
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/5/2019</b>			SeqNo: <b>2073789</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.0	0.20	1.670	0	61.1	41.3	106			
4-Chloro-3-methylphenol	2.4	0.50	3.330	0	71.9	39.7	113			
2-Chlorophenol	2.2	0.20	3.330	0	67.5	30.1	99.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	60.0	27.5	98.1			
2,4-Dinitrotoluene	0.89	0.50	1.670	0	53.2	36	98.3			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	66.3	34.6	115			
4-Nitrophenol	1.8	0.25	3.330	0	54.9	39.7	114			
Pentachlorophenol	1.2	0.40	3.330	0	37.3	37	94.7			
Phenol	2.2	0.20	3.330	0	66.2	35	96.7			
Pyrene	1.1	0.20	1.670	0	67.8	44.8	108			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	69.1	31.2	114			
Surr: 2-Fluorophenol	2.0		3.330		59.6	24.8	95.2			
Surr: Phenol-d5	2.3		3.330		69.5	29.9	97.8			
Surr: 2,4,6-Tribromophenol	2.1		3.330		62.9	35.7	108			
Surr: Nitrobenzene-d5	1.2		1.670		69.5	32.5	106			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.2	27.7	114			
Surr: 4-Terphenyl-d14	1.1		1.670		65.7	15	148			

Sample ID: <b>mb-45929</b>	SampType: <b>MBLK</b>			TestCode: <b>EPA Method 8270C: Semivolatiles</b>						
Client ID: <b>PBS</b>	Batch ID: <b>45929</b>			RunNo: <b>61183</b>						
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/5/2019</b>			SeqNo: <b>2073790</b>		Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>mb-45929</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8270C: Semivolatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45929</b>	RunNo: <b>61183</b>								
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2073790</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.40								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.40								
2,4-Dinitrophenol	ND	0.50								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.40								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								

### Qualifiers:

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>mb-45929</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8270C: Semivolatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45929</b>	RunNo: <b>61183</b>								
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/5/2019</b>	SeqNo: <b>2073790</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.3		3.330		67.6	24.8	95.2			
Surr: Phenol-d5	2.4		3.330		72.6	29.9	97.8			
Surr: 2,4,6-Tribromophenol	2.2		3.330		66.4	35.7	108			
Surr: Nitrobenzene-d5	1.3		1.670		75.4	32.5	106			
Surr: 2-Fluorobiphenyl	1.1		1.670		64.0	27.7	114			
Surr: 4-Terphenyl-d14	1.2		1.670		71.1	15	148			

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P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

**Client:** Marathon  
**Project:** OCD Central Landfarm Semiannual Sampling

Sample ID: <b>MB-46081</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 7471: Mercury</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46081</b>	RunNo: <b>61284</b>								
Prep Date: <b>7/9/2019</b>	Analysis Date: <b>7/10/2019</b>	SeqNo: <b>2077571</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID: <b>LLCS-46081</b>	SampType: <b>LCSLL</b>	TestCode: <b>EPA Method 7471: Mercury</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>46081</b>	RunNo: <b>61284</b>								
Prep Date: <b>7/9/2019</b>	Analysis Date: <b>7/10/2019</b>	SeqNo: <b>2077572</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0060	0.033	0.006660	0	89.8	70	130			J

Sample ID: <b>LCS-46081</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 7471: Mercury</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46081</b>	RunNo: <b>61284</b>								
Prep Date: <b>7/9/2019</b>	Analysis Date: <b>7/10/2019</b>	SeqNo: <b>2077573</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

Sample ID: <b>1906G37-002BMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 7471: Mercury</b>								
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>46081</b>	RunNo: <b>61284</b>								
Prep Date: <b>7/9/2019</b>	Analysis Date: <b>7/10/2019</b>	SeqNo: <b>2077576</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1663	0.01771	94.8	80	120			

Sample ID: <b>1906G37-002BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 7471: Mercury</b>								
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>46081</b>	RunNo: <b>61284</b>								
Prep Date: <b>7/9/2019</b>	Analysis Date: <b>7/10/2019</b>	SeqNo: <b>2077577</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.032	0.1595	0.01771	94.7	80	120	3.81	20	

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B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>LCS-45944</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 6010B: Soil Metals</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>45944</b>		RunNo: <b>61102</b>							
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/2/2019</b>		SeqNo: <b>2070362</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	99.0	80	120			
Cadmium	26	0.10	25.00	0	102	80	120			
Chromium	26	0.30	25.00	0	102	80	120			
Copper	27	0.30	25.00	0	107	80	120			
Iron	27	2.5	25.00	0	109	80	120			
Lead	25	0.25	25.00	0	99.6	80	120			
Manganese	25	0.10	25.00	0	102	80	120			
Selenium	25	2.5	25.00	0	99.7	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			
Uranium	25	5.0	25.00	0	98.3	80	120			
Zinc	26	2.5	25.00	0	102	80	120			

Sample ID: <b>MB-45944</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 6010B: Soil Metals</b>							
Client ID: <b>PBS</b>	Batch ID: <b>45944</b>		RunNo: <b>61102</b>							
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/2/2019</b>		SeqNo: <b>2070364</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	0.22	0.30								J
Iron	0.96	2.5								J
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	0.42	2.5								J

Sample ID: <b>1906G37-002BMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 6010B: Soil Metals</b>							
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45944</b>		RunNo: <b>61102</b>							
Prep Date: <b>7/1/2019</b>	Analysis Date: <b>7/2/2019</b>		SeqNo: <b>2070395</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	5.0	25.11	2.944	83.0	75	125			
Barium	260	0.20	25.11	184.7	286	75	125			S
Cadmium	23	0.20	25.11	0	90.1	75	125			
Chromium	39	0.60	25.11	15.08	95.6	75	125			

### Qualifiers:

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PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: 1906G37-002BMS		SampType: MS		TestCode: EPA Method 6010B: Soil Metals						
Client ID: CENTRAL OCD LF V		Batch ID: 45944		RunNo: 61102						
Prep Date: 7/1/2019		Analysis Date: 7/2/2019		SeqNo: 2070395			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	29	0.60	25.11	4.131	99.6	75	125			
Lead	22	0.50	25.11	0	85.8	75	125			
Manganese	430	0.20	25.11	343.9	357	75	125			S
Selenium	26	5.0	25.11	0	105	75	125			
Silver	3.6	0.50	5.022	0	71.4	75	125			S
Uranium	8.5	10	25.11	0	33.8	75	125			JS
Zinc	45	5.0	25.11	21.02	95.9	75	125			

Sample ID: 1906G37-002BMSD		SampType: MSD		TestCode: EPA Method 6010B: Soil Metals						
Client ID: CENTRAL OCD LF V		Batch ID: 45944		RunNo: 61102						
Prep Date: 7/1/2019		Analysis Date: 7/2/2019		SeqNo: 2070396		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	5.0	25.14	2.944	85.4	75	125	2.53	20	RS
Barium	320	0.20	25.14	184.7	554	75	125	23.2	20	
Cadmium	23	0.20	25.14	0	91.9	75	125	2.16	20	
Chromium	41	0.60	25.14	15.08	104	75	125	5.56	20	
Copper	30	0.60	25.14	4.131	105	75	125	4.53	20	
Lead	24	0.50	25.14	0	95.6	75	125	11.0	20	S
Manganese	390	0.20	25.14	343.9	202	75	125	9.39	20	
Selenium	27	5.0	25.14	0	108	75	125	2.88	20	
Silver	3.5	0.50	5.028	0	70.6	75	125	1.08	20	
Uranium	8.0	10	25.14	0	31.9	75	125	5.44	20	
Zinc	48	5.0	25.14	21.02	109	75	125	6.86	20	JS

Sample ID: 1906G37-002B		SampType: PS		TestCode: EPA Method 6010B: Soil Metals						
Client ID: CENTRAL OCD LF V		Batch ID: 45944		RunNo: 61102						
Prep Date: 7/1/2019		Analysis Date: 7/2/2019		SeqNo: 2070397		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	230	0.20	49.78	184.7	88.6	80	120			
Manganese	390	0.20	49.78	343.9	85.5	80	120			
Silver	8.0	0.50	9.955	0	80.6	80	120			
Uranium	29	10	49.78	0	59.2	80	120			S

### Qualifiers:

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ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1906G37

03-Oct-19

Client: Marathon

Project: OCD Central Landfarm Semiannual Sampling

Sample ID: <b>mb-45983</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072414</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	440		500.0		88.2	70	130			

Sample ID: <b>lcs-45983</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072415</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.2	70	130			
Surr: BFB	440		500.0		87.4	70	130			

Sample ID: <b>1906g37-002amsg</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072418</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.68	0	91.1	68.2	135			
Surr: BFB	500		493.6		101	70	130			

Sample ID: <b>1906g37-002amsdg</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CENTRAL OCD LF V</b>	Batch ID: <b>45983</b>		RunNo: <b>61138</b>							
Prep Date: <b>7/2/2019</b>	Analysis Date: <b>7/3/2019</b>		SeqNo: <b>2072419</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.75	0	93.8	68.2	135	3.15	20	
Surr: BFB	450		495.0		91.3	70	130	0	0	

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E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit



## Sample Log-In Check List

Client Name: **MARATHON GALLUP**

Work Order Number: **1906G37**

RcptNo: **1**

Received By: **Andy Freeman**

6/27/2019 4:20:00 PM

Completed By: **Anne Thorne**

6/28/2019 4:26:34 PM

Reviewed By:

*[Signature]* 7/1/19

*[Signature]*

*[Signature]*

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐  
5. Sample(s) in proper container(s)? Yes ☒ No ☐  
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐  
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
9. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐  
10. Were any sample containers received broken? Yes ☐ No ☒  
11. Does paperwork match bottle labels? Yes ☒ No ☐  
(Note discrepancies on chain of custody)  
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
13. Is it clear what analyses were requested? Yes ☒ No ☐  
14. Were all holding times able to be met? Yes ☒ No ☐  
(If no, notify customer for authorization.)

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

CUSTODY SEALS INTACT ON SAMPLE BOTTLES/at 6/28/19

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Yes			
2	4.9	Good	Yes			
3	5.1	Good	Yes			











**NMAC LIST ANALYTES AND REPORTING LIMITS, CONSTITUENTS LISTED IN SUBSECTIONS A AND B OF 20.6.2.3103 NMAC, CENTRAL OIL CONSERVATION DIVISION LANDFARM  
 WESTERN REFINING SOUTHWEST, GALLUP REFINERY, GALLUP, NEW MEXICO**

Analyte	Analytical Method	Reporting Units	Requested Reporting Limit
Fluoride	E300	mg/kg	0.3000
Nitrogen, Nitrate (As N)	E300	mg/kg	2.2000
Sulfate	E300	mg/kg	21.5000
*Radium-226	E901.1	pCi/g	1.3950
*Radium-228	E901.1	pCi/g	1.2990
*Radium-226+Radium-228	E901.1	pCi/g	2.6450
Arsenic	SW8010A	mg/kg	2.5000
Berium	SW8010A	mg/kg	1.0000
Cadmium	SW8010A	mg/kg	0.1000
Chromium	SW8010A	mg/kg	0.3000
Copper	SW8010A	mg/kg	0.6000
Iron	SW8010A	mg/kg	500.0000
Lead	SW8010A	mg/kg	0.2500
Manganese	SW8010A	mg/kg	1.0000
Selenium	SW8010A	mg/kg	2.5000
Silver	SW8010A	mg/kg	0.2500
Uranium	SW8010A	mg/kg	5.0000
Zinc	SW8010A	mg/kg	2.5000
Mercury	SW7471	mg/kg	0.0330
Aroclor 1016	SW8062	mg/kg	0.0200
Aroclor 1221	SW8062	mg/kg	0.0200
Aroclor 1232	SW8062	mg/kg	0.0200
Aroclor 1242	SW8062	mg/kg	0.0200
Aroclor 1248	SW8062	mg/kg	0.0200
Aroclor 1254	SW8062	mg/kg	0.0200
Aroclor 1260	SW8062	mg/kg	0.0200
1,1,1-Trichloroethane	SW8280B	mg/kg	0.0480
1,1,2-Trichloroethane	SW8280B	mg/kg	0.0480
1,1-Dichloroethane	SW8280B	mg/kg	0.0370
1,1-Dichloroethene	SW8280B	mg/kg	0.0480
1,2-Dichloroethane	SW8280B	mg/kg	0.0480
Carbon tetrachloride	SW8280B	mg/kg	0.0370
Chloroform	SW8280B	mg/kg	0.0480
Dibromomethane	SW8280B	mg/kg	0.1000
Methylene chloride	SW8280B	mg/kg	0.1500
Tetrachloroethene	SW8280B	mg/kg	0.0480
Trichloroethene	SW8280B	mg/kg	0.0480
Vinyl chloride	SW8280B	mg/kg	0.0480
2,4,6-Trichlorophenol	SW8270C	mg/kg	0.2000
2,4,6-Trichlorophenol	SW8270C	mg/kg	0.2000
2,4-Dichlorophenol	SW8270C	mg/kg	0.4000
2,4-Dimethylphenol	SW8270C	mg/kg	0.3000
2,4-Dinitrophenol	SW8270C	mg/kg	0.4000
2-Chlorophenol	SW8270C	mg/kg	0.2000
2-Methylphenol	SW8270C	mg/kg	0.1000
2-Nitrophenol	SW8270C	mg/kg	0.1000
3,4-Methylphenol	SW8270C	mg/kg	0.1000
4,6-Dinitro-2-methylphenol	SW8270C	mg/kg	0.5000
4-Chloro-3-methylphenol	SW8270C	mg/kg	0.1000
4-Nitrophenol	SW8270C	mg/kg	0.1000
Parachlorophenol	SW8270C	mg/kg	0.4000
Phenol	SW8270C	mg/kg	0.2000
1-Methylnaphthalene	SW8260B	mg/kg	0.2000
2-Methylnaphthalene	SW8260B	mg/kg	0.2000
Acenaphthene	SW8270C	mg/kg	0.2000
Acenaphthylene	SW8270C	mg/kg	0.2000
Anthracene	SW8270C	mg/kg	0.2000
Benzo(a)anthracene	SW8270C	mg/kg	0.2000
Benzo(a)pyrene	SW8270C	mg/kg	0.2000
Benzo(b)fluoranthene	SW8270C	mg/kg	0.2000
Benzo(g,h,i)perylene	SW8270C	mg/kg	0.2000
Benzo(k)fluoranthene	SW8270C	mg/kg	0.2000
Chrysene	SW8270C	mg/kg	0.2000
Dibenz(a,h)anthracene	SW8270C	mg/kg	0.2000
Fluoranthene	SW8270C	mg/kg	0.2000
Fluorene	SW8270C	mg/kg	0.2000
Indeno(1,2,3-c,d)pyrene	SW8270C	mg/kg	0.2000
Naphthalene	SW8270C	mg/kg	0.2000
Phenanthrene	SW8270C	mg/kg	0.2000
Pyrene	SW8270C	mg/kg	0.2000
Cyanide	EPA 335.4	mg/kg	0.3000
Diesel Range Organics (DRO)	SW8915	mg/kg	12
Gasoline Range Organics (GRO)	SW8915	mg/kg	1.0



**VADOSE ZONE ANALYTES AND REPORTING LIMITS, CENTRAL OIL CONSERVATION DIVISION LANDFARM  
WESTERN REFINING SOUTHWEST, GALLUP REFINERY, GALLUP, NEW MEXICO**

Analyte	Analytical Method	Reporting Units	Requested Reporting Limit
Chloride	E300	mg/kg	30
Benzene	SW8260B	mg/kg	0.050
Ethylbenzene	SW8260B	mg/kg	0.050
Toluene	SW8260B	mg/kg	0.050
Xylenes, Total	SW8260B	mg/kg	0.100
Petroleum Hydrocarbons, TR	E418.1	mg/kg	20