

AP - 111

AOC - 35

2019



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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 31, 2020

John Moore
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

**RE: DISAPPROVAL
INVESTIGATION WORK PLAN NO. 2 AREA OF CONCERN 35
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-20-009**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed the *Investigation Work Plan No. 2 Area of Concern 35* (Work Plan), dated February 2020, submitted on behalf of Marathon Petroleum Company dba Western Refining Southwest Inc., Gallup Refinery (the Permittee). NMED hereby issues this Disapproval with the attached comments.

The Permittee must submit a revised Work Plan that addresses all comments contained in the Attachment. Two hard copies and an electronic version of the revised Work Plan must be submitted to the NMED. The Permittee must also include a redline-strikeout version in electronic format showing where all revisions to the Work Plan have been made. The revised Work Plan must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. The Revised Work Plan must be submitted to NMED no later than **December 31, 2020**.

Mr. Moore
August 31, 2020
Page 2

If you have questions regarding this Disapproval, please contact Michiya Suzuki of my staff at 505-476-6046.

Sincerely,



Dave Cobrain
Program Manager
Hazardous Waste Bureau

cc: M. Suzuki, NMED HWB
C. Chavez, OCD
L. King, EPA Region 6 (6LCRRC)
B. Moore, WRG

File: Reading File and WRG 2020 File
HWB-WRG-20-009

Attachment

Comment 1

In Section 2.1, *Main Truck Loading Rack Area*, page 2-1, the Permittee states, “[t]he well [MKTF-45] is measured as being 30.24 feet deep and has contained SPH since it was first gauged in 2014.” The thickness of the separate phase hydrocarbon (SPH) column in well MKTF-45 is consistently greater than other wells in the vicinity. The screened interval of well MKTF-45 is unknown. It is not clear whether well MKTF-45 is screened differently than other nearby wells or an isolated hot spot is present near well MKTF-45. Propose to determine the screened interval of well MKTF-45 in the revised Work Plan.

In addition, well MKTF-17 is located approximately 50 feet downgradient from, and closest to, well MKTF-45. SPH thickness in well MKTF-17 is consistently less than that of well MKTF-45. The screened interval of well MKTF-17 is submerged below the water table and underestimates the SPH thickness. In order to evaluate SPH thickness more accurately, propose to install a well at the location of well MKTF-17 to intercept the water table in the revised Work Plan.

Furthermore, Figure 6, *Proposed Sampling Locations*, depicts a proposed well approximately 200 feet west of well MKTF-17. Section 4.1, *AOC 35 Investigation*, page 4-2, states, “[t]he well is proposed to be located approximately midway between MTKF-17, which now contains SPH as a result of the gasoline release, and MKTF-33 that does not contain measurable SPH.” The proposed well location is likely too far downgradient to evaluate the extent of SPH. Well MKTF-33 is referenced to determine the location of the proposed well. However, well MKTF-33 is located approximately 550 feet west of well MKTF-17 and concentrations of benzene, toluene, ethylbenzene, and xylenes have not been detected from the groundwater samples collected from the well. Therefore, well MKTF-33 must not be used to determine the proposed well location. Revise the location of the proposed well to be approximately 100 feet west of well MKTF-17.

Comment 2

In Section 2.1, *Main Truck Loading Rack Area*, page 2-2, the Permittee states, “[t]he sumps collect small spills that may occur on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses.” The locations of the sumps are not identified in Figure 6. Identify the locations of the sumps in the revised figure.

Comment 3

In Section 2.1, *Main Truck Loading Rack Area*, page 2-2, the Permittee states, “[t]he concrete pads are cracked, particularly in the areas near the sumps.” The referenced area is close to the loading rack and future releases may occur in the general vicinity. Cracked concrete pads will not prevent released fuels from seeping into the soils. Propose to investigate beneath the cracked concrete pads in the revised Work Plan or to repair the damaged concrete.

Comment 4

In Section 2.6, *Prior Investigation*, page 2-5, the Permittee states, "one pint of a yellow/green dye (Spectroline Oil-Glo 44G Fluorescent yellow/green) [was] introduced into the sewer at the Crude Slop and Ethanol Unloading area (a short distance northwest of the main truck loading racks)... [and] [t]he green/yellow dye appeared to be present in nine wells [SB04, SB05, SB06 (MKTF-05), SB08 (MKTF-06), SB10 (MKTF-07), SB11 (MKTF-08), SB19 (MKTF-12), SB20 (MKTF-13), and SB21]..." and "one pint of a red dye (FWT red dye) [was] introduced at the lab sinks... [and] [t]he red dye was identified in five of the temporary wells [SB01 (MKTF-03), SB02, SB16 (MKTF-10), SB17 (MKTF-11), and SB22 (MKTF-14)]..." The sewer line was leaking according to the result of the test. Provide an explanation on the current status of the sewer line in the revised Work Plan. If the sewer line has not been repaired, propose to repair it in the revised Work Plan.

Comment 5

In Section 4.1, *AOC 35 Investigation*, page 4-1, the Permittee states, "[i]t is anticipated that the gasoline is likely pooled on top of this clay interval and to avoid providing a direct vertical conduit to lower permeable layers the soil borings will be terminated in the clay." Section 2.5 discusses that SPH was detected or increased in several downgradient wells after the release was identified. The clay interval may have slowed the rate of SPH migration to the water bearing zone; however, it did not prevent it. Accordingly, the soils in the clay interval are likely contaminated by the released gasoline. SPH is likely pooled on top of the water table and also possibly on the clay interval. Propose to extend the soil borings to beneath the soil/groundwater interface in the revised Work Plan.

Comment 6

In Section 4.1, *AOC 35 Investigation*, page 4-1, the Permittee states, "[i]n addition to collection of soil samples, groundwater samples will also be collected from these locations if groundwater is encountered and SPH is not present." The area where the borings are proposed to be advanced may be contaminated with multiple historic hydrocarbon releases. Accordingly, if SPH is present, collect SPH samples for fingerprint analysis to identify the nature of the contamination. Include the provision in the revised Work Plan.

Comment 7

Section 4.2, *Soil Sample Field Screening and Logging*, pages 4-1 and 4-2, provides details on soil screening and laboratory sample collection methods, which is appropriate for the proposed soil borings. The proposed method must also apply to the soil boring to be converted to the groundwater monitoring well west of well MKTF-17. Clarify that the method also applies to the installation of the monitoring well in the revised Work Plan.

Comment 8

In Section 4.2, *Soil Sample Field Screening and Logging*, page 4-2, the Permittee states, "[f]ield duplicates will be collected at a rate of 10 percent." Even if the total number of samples is less

than 10, at least one field duplicate sample must be collected. Include the provision in the revised Work Plan.

Comment 9

In Section 4.3, *Groundwater Sample Collection*, page 4-4, the Permittee states, “[s]ample handling and chain-of-custody procedures will be in accordance with the procedures presented below in Section 4.4.1.” The Work Plan does not include a Section 4.4.1. The referenced section is Section 4.3.1. Correct the typographical error in the revised Work Plan.

Comment 10

In Section 4.6, *Chemical Analyses*, page 4-7, the Permittee states, “[g]roundwater and soil samples will be analyzed by the following methods: • SW-846 Method 8260 for volatile organic compounds; • SW-846 Method 8270 for semi-volatile organic compounds; and • SW-846 Method 8015B gasoline range (C5-C10), diesel range (>C10-C28), and motor oil range (>C28-C36) organics.”

According to the 2018 *Annual Groundwater Monitoring Report*, dated September 2019, 1,2-dichloroethane (EDC) was detected from the groundwater samples collected from well MKTF-36 located approximately 50 feet downgradient of the Main Truck Loading Rack. Since EDC is a lead scavenger, 1,2-dibromoethane (EDB) may also be present at the pertinent area. Propose EDB analysis for the groundwater samples using an analytical method capable of detecting EDB at concentrations less than 0.004 micrograms per liter (e.g., EPA Method 8011) in the revised Work Plan.

In addition, chlorinated solvents have been detected in the groundwater samples collected from the pertinent wells. The New Mexico Water Quality Commission adopted revised regulations that listed 1,4-dioxane as a toxic pollutant on December 21, 2018. Propose to analyze for 1,4-dioxane for the groundwater samples using EPA Method 8270 Selected Ion Monitoring (SIM) in the revised Work Plan.

Comment 11

In Section 4.6, *Chemical Analyses*, page 4-8, the Permittee states, “[g]roundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).” Nitrate and nitrite analyses were also included in the subsequent table titled as *Inorganic Analytical Method*, which is appropriate. The Permittee previously stated that laboratory nitrite analysis could not be carried out due to its short holding time (i.e., 48 hours). Subsequently, NMED suggested the use of a field test kit to report separate nitrite concentrations. If laboratory nitrite analysis can be conducted, conduct laboratory nitrite analysis rather than field nitrite analysis as laboratory analysis is more accurate. Clarify whether nitrite analysis will be conducted using a field test kit or off-site laboratory analysis or both in the revised Work Plan.

Comment 12

In Section 4.7, *Data Quality Objectives*, page 4-9, the Permittee states, “[m]ethod detection limits should be 20% or less of the applicable background levels, cleanup standards and screening levels.” The screening levels for total petroleum hydrocarbon diesel range organics (TPH-DRO) and oil range organics (TPH-MRO) are 85.8 µg/L. Previously, the detection limits were reported higher than the screening levels. The detection limits must be lower than the screening levels. Solicit analytical laboratories capable of achieving the detection limits lower than the screening levels and resolve this recurring issue. Otherwise, address the concentrations where the detection limits are higher as a data gap and include the discussion in the investigation report. Include the provision in the revised Work Plan.

Comment 13

Figure 3, *Potentiometric Map*, Figure 4, *Benzene Concentration Map*, and Figure 5, *MTBE Concentration Map* use the data collected during the third quarter of 2017. The data collected in 2017 is not relevant to the investigation. In the revised Work Plan, provide the figures that present the data collected before and after the October 27, 2019 release. In addition, provide diagrams that present SPH thickness in pertinent wells before and after the October 27, 2019 release in the revised Work Plan.

Investigation Work Plan No. 2

Area of Concern 35



**Marathon
Petroleum Company LP**

Gallup Refinery
Marathon Petroleum Company, LP
Gallup, New Mexico

EPA ID# NMD000333211

FEBRUARY 2020

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Appendix B Investigation Derived Waste Management Plan
Appendix C Well Development and Purging Procedures
Appendix D C-141 Form – Gasoline Release

List of Acronyms

benzene, toluene, ethylbenzene, and xylene (BTEX)
Code of Federal Regulations (CFR)
Contract Laboratory Program (CLP)
data quality objective (DQO)
diesel range organics (DRO)
dilution attenuation factor (DAF)
Environmental Protection Agency (EPA)
investigation derived waste (IDW)
Maximum Contaminant Level (MCL)
mean sea level (msl)
monitoring well (MW)
motor oil range organics (MRO)
methyl tert butyl ether (MTBE)
New Mexico Administrative Code (NMAC)
New Mexico Environment Department (NMED)
New Mexico Oil Conservation Division (NMOCD)
photoionization detector (PID)
polynuclear aromatic hydrocarbon (PAH)
polyvinyl chloride (PVC)
quality assurance/quality control (QA/QC)
Resource Conservation and Recovery Act (RCRA)
separate-phase hydrocarbon (SPH)
semi-volatile organic compound (SVOC)
Solid Waste Management Unit (SWMU)
total petroleum hydrocarbon (TPH)
toxicity characteristic leaching procedure (TCLP)
volatile organic compound (VOC)

Executive Summary

The Gallup Refinery, which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 – 7, 912, 913, 1001, and 1002).

Groundwater samples collected from wells near the retail tank farm [also known as the marketing tank farm (MKTF)] (e.g., MKTF-07, -08, -09, -10, -16, and -18) have shown impacts from petroleum hydrocarbons, to include such constituents as benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert butyl ether (MTBE) above screening levels. Similar impacts also extent to the south near the main truck loading racks as shown in groundwater samples collected from this area. An Investigation Work Plan was prepared in July 2019 to investigate potential source areas that have in the past or are continuing to contribute to the observed groundwater impacts. Twenty-five soil borings were proposed to evaluate the presence of source areas. This included collection of soil samples from each boring and a groundwater sample if groundwater is encountered. In addition, two shallow permanent monitoring wells were to be installed to evaluate conditions in the perched groundwater zone previously identified on the western side of the main truck loading rack.

Subsequent to preparation of the initial Investigation Work Plan in July 2019, a release of gasoline was observed at the land surface on October 27, 2019 on the west side of the Truck loading rack. The source of the release was determined to be an underground transfer line on the north side of the Truck loading rack. This Investigation Work Plan provides for the collection of additional soil and groundwater samples in the area of the pipeline release and down-gradient to facilitate lateral delineation of the release.

The soil and groundwater samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), Skinner List metals, iron, and manganese. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Section 1

Introduction

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

The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck. Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

This investigation work plan addresses AOC 35, which includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm loading rack, and the retail tank farm (tanks 1 – 7, 912, 913, 1001, and 1002) (Figure 2). The purpose of this investigation is to:

- Characterize the subsurface conditions in the area of a leaking underground transfer line on the north side of the Truck loading rack; and
- Provide additional information on the down-gradient migration of separate-phase hydrocarbons (SPH) to the west of the Truck loading rack.

The investigation activities will be conducted in accordance with Section IV.H.5 of the Post-Closure Care Permit.

Section 2

Background

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

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

2.1 Main Truck Loading Rack Area

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

There have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies. On December 4, 2007, approximately 6,800 gallons of gasoline was spilled when a truck driver erroneously opened a valve on a tanker truck (Release Notification dated Dec. 7, 2007) and on December 23, 2009, approximately 44 barrels (1,848 gallons) of diesel fuel was spilled from a leaking underground pipeline at the west end of the loading rack (Release Notification dated Dec. 29, 2009). No final documentation of the spill response for the December 2009 release has been located to determine if the spill response was fully completed.

As part of the Interim Measures to address the Hydrocarbon Seep Area, which is located to the northwest of the main loading racks, new monitoring wells were installed near the loading racks. These wells are identified as the MKTF wells. In addition, during the field reconnaissance process to locate potential drilling locations near the main loading racks, an unidentified well was located to the west of the main loading racks and it was subsequently numbered as MKTF-45 (Figure 3). The well is measured as being 30.24 feet deep and has contained SPH since it was first gauged in 2014. It

appears the well was installed to help address historic releases near the main loading racks; however, no documentation of this has been found in site records despite repeated attempts to locate any information on the well. Well MKTF-36 was installed immediately down-gradient of the loading racks in November 2014 and SPH was identified while drilling the boring. Fluid level measurements for wells near AOC 35 are provided in Table 1. Boring logs for the nearby wells are provided in Appendix A. Chemical analyses of groundwater samples collected in the area of AOC 35 are summarized in Table 2. Figures 4 and 5 show the distribution of benzene and MTBE in groundwater, which appear to have a source in the vicinity of the main loading racks.

Underground piping near the main loading racks includes a sanitary sewer drain line running east to west to the north of the loading rack (Figure 6). In addition, there are oily water drain lines (process sewer) that run from the lab building to the loading rack and then the line continues to the north after picking up discharge from sumps located at the loading rack. The sumps collect small spills that may occur on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses. The sump is no longer used to collect fluids from loading hoses and would only serve as an emergency drain in the case of a release during loading operations. The concrete pads are cracked, particularly in the areas near the sumps.

2.2 Crude Slop and Ethanol Unloading Facility

This facility is located approximately 80 feet northwest of the main loading racks and is used to unload recovered oil and transmix that may be reclaimed from various locations within the refinery. The area is also used to unload ethanol that is delivered to the refinery via truck. It was put into service sometime before the 1990s and is still in operation. The unloading area is approximately 15 feet by 40 feet and includes overhead pipelines and associated connections to support unloading operations. The concrete pad drains to a sump, which is connected to the process sewer (Figure 6). This concrete pad, which appears to be in good condition, was rebuilt approximately 10 years ago.

2.3 Additive Tank Farm Loading Rack

Petroleum product additives are stored in aboveground tanks at this location (Figure 2). These additive tanks are all small aboveground tanks located approximately 150 feet west of the main loading rack. The additive tanks were installed prior to 1997, but the exact date is uncertain. No wastes are managed and only products (i.e., fuel additives) are managed in this area. Methyl tert butyl ether (MTBE) is not and has not been stored in these tanks.

2.4 Retail Tank Farm

The retail tank farm is located approximately 150 feet northwest of the main loading racks and includes Tanks 1 – 7, 912, 913, 1001, and 1002 (Figure 2). Retail petroleum products (e.g., gasoline, diesel, and biodiesel) are stored in these tanks and MTBE was stored in Tank 6 prior to discontinuation of its use in 2006. Ethanol has been stored in Tank 6 since the use of MTBE was discontinued. The first tanks were constructed in 1963 and have had routine inspections both external and internal since construction. Details of the tanks size, materials, construction dates, etc. are provided in Table 3.

The fuels are delivered to the marketing tanks via pipelines that run primarily aboveground. Ethanol is unloaded at the adjacent ethanol unloading facility and transferred to Tanks 5 and 6 via aboveground lines. The fuels and additives (i.e., ethanol) are subsequently transferred to the main loading racks via aboveground and underground pipelines where they are loaded into tanker trucks.

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

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

2.5 October 2019 Underground Transfer Line Release

On October 27, 2019 an area of soil staining was observed to the west of the Truck loading rack. It was determined this was evidence of new release and subsequent efforts identified an underground product transfer line leaking gasoline on the north side of the Truck loading rack. (Figure 6). As part of the initial spill response efforts, the pipeline was taken out of service, an earthen berm was placed to stop flow in the ditch and any fluids present were recovered. This was reported on November 7, 2019 to the NMED and New Mexico Oil Conservation Division via Form C-141, a copy of which is included in Appendix D.

After the release was identified, fluid levels were checked in nearby monitoring wells to determine if the gasoline (expressed as SPH) was present and on-going measurements continue to be recorded. The measurements through January 15, 2020 are provided in Table 1 along with the routine quarterly gauging information for the nearby MKTF wells. These measurements show SPH being indicated for the first time in wells MKTF-13 on January 15, 2020, MKTF-17 on November 19, 2019, MKTF-19 on December 2, 2019. In addition, significant increases in the measured thickness of SPH occurred in wells MKTF-05 on November 13, 2019, MKTF-06 on December 2, 2019, MKTF-07 on December 19, 2019, MKTF-36 on November 6, 2019, and MKTF-45 on October 31, 2019. The SPH appears to be moving preferentially to the northwest, where the greater thickness measurements are recorded, but the appearance of SPH in MKTF-17 suggests migration to the west as well.

2.6 Prior Investigations

The earliest investigation in the area is referenced in *Comprehensive Facility Investigation Work Plan* that was prepared for the NMOCD in June 1997 (Giant Refining Company, 1997). The work plan references “groundwater impact area #4” as being in the vicinity of the truck loading rack. It is stated that the source of the impact is a spill of hydrocarbon that occurred in the early 1980s. The area is further described as having residual hydrocarbons present at low levels and declining through natural biodegradation. No quantitative information could be located to substantiate the description of the conditions provided in the 1997 Work Plan.

As discussed above in Section 2.1, groundwater conditions in the vicinity of AOC 35 were recently investigated as part of the interim measures effort for the Hydrocarbon Seep Area (DiSorbo, 2016). Figure 6 shows the location of numerous monitoring wells (MKTF designation) in and around AOC 35. These wells are primarily screened across the contact of the Chinle Group (Petrified Forest Formation) that forms an aquitard and the overlying alluvial/fluvial deposits (Quaternary Alluvium). Groundwater samples collected from the existing MKTF wells have shown the presence of petroleum hydrocarbons, including constituents such as BTEX and related constituents (e.g., MTBE) at concentrations above screening levels. These analyses are summarized in Table 2. The distribution of these constituents as shown on Figures 3 and 4 indicates a source of groundwater contamination from within AOC 35.

The process sewer drain lines that are present in the area were also evaluated in the past to determine if they could be leaking. On July 8, 2013, one pint of fluorescent FWT red dye was poured into a sump/drain at the second bay from the south end at the truck loading rack. After several

minutes the red dye was observed in the sewer box located on the west side of the bundle cleaning pad, confirming the flow of the drain from the truck rack to the north in the main process sewer pipeline. A second pint of the same red dye was added to the same sewer box on the west side of the bundle pad. The excavations at the hydrocarbon seep area (located west of the crude tanks) were inspected each day afterward and on the 8th day, July 16, 2018, red dye as identified in one of the excavations. The dye was not initially identified in the soil borings/temporary wells located south the hydrocarbon seep and west of the marketing tanks, but only in the area where the seep was identified. During a later fluid gauging event on August 14th, dye was observed in SB-1 and SB-16. The presence of dye in groundwater in the area of the seep was interpreted as indicating a likely release from the sewer system and a possible preferential migration pathway to this area.

Two additional dye tests were conducted in the process sewer system with one pint of a yellow/green dye (Spectrolin Oil-Glo 44G Fluorescent yellow/green) introduced into the sewer at the Crude Slop and Ethanol Unloading area (a short distance northwest of the main truck loading racks) on September 23, 2013 and one pint of a red dye (FWT red dye) introduced at the lab sinks on September 24, 2013. On September 25, 2013, green dye was detected in sump 1 at the hydrocarbon seep. A subsequent fluid level gauging event was conducted at the MKTF monitoring wells on September 26, 2013. The red dye was identified in five of the temporary wells [SB01 (MKTF-03), SB02, SB16 (MKTF-10), SB17 (MKTF-11), and SB22 (MKTF-14)], all of which are located just south of the road that runs east-west along the north side of the marketing tanks. The green/yellow dye appeared to be present in nine wells [SB04, SB05, SB06 (MKTF-05), SB08 (MKTF-06), SB10 (MKTF-07), SB11 (MKTF-08), SB19 (MKTF-12), SB20 (MKTF-13), and SB21], which are all located further south, closer to the Crude Slop and Ethanol Unloading area. Although the dye tests were not conclusive, the separate patterns of the two dyes suggest the possibility of two separate release points from the sewer line.

Section 3 Site Conditions

3.1 Surface Conditions

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

Regional surface water features include the refinery evaporation ponds and a number of small ponds (one cattle water pond and two small unnamed spring fed ponds). The site is located in the Puerco River Valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Puerco River. The Puerco River continues to the west to the confluence with the Little Colorado River. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Group, which is Upper Triassic, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local Formation is the Petrified Forest Formation and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 ft²/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the refinery property.

The diverse properties and complex, irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10⁻² cm/sec for gravel like sands immediately overlying the Petrified Forest Formation to 10⁻⁸ cm/sec in the clay soils located near the surface (Western, 2009). Generally, shallow groundwater at the refinery follows the upper contact of

the Petrified Forest Formation with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions (Figure 3). Fluid level measurements for wells in the area of AOC 35 are included in Table 1.

Section 4

Scope of Services

The site investigation of soil and groundwater will be conducted to characterize the subsurface conditions in the area of the leaking underground transfer line on the north side of the Truck loading rack and help delineate the down-gradient migration of SPH to the west of the Truck loading rack. The investigation will commence upon approval of this Investigation Work Plan by NMED.

4.1 AOC 35 Investigation

An investigation of soil and groundwater conditions in AOC 35 was proposed in an Investigation Work Plan prepared in July 2019 to determine the source of BTEX and MTBE that has been detected in groundwater samples collected from monitoring wells in the vicinity of AOC 35. The boring locations proposed in this earlier Investigation Work Plan, which are identified on Figure 6, were selected based on field reconnaissance to identify visibly stained soils, water drains at aboveground storage tanks, and sumps and related features where fluids are transferred (e.g., loading of petroleum fuels at the loading racks). In addition, borings were proposed along an underground sanitary sewer pipeline and underground oily water drain lines identified from site records. The data obtained from these previously proposed and approved (NMED approved with modification on September 12, 2019) locations will also provide significant information on the impacts from the recent release of gasoline from the underground transfer line. Eight of these borings are located to the east (up-gradient) of the underground transfer line, one is located immediately to the south, seven are located to the west (down-gradient) of the transfer line and one boring is located to the north.

Under this new Investigation Work Plan, two soil borings will be completed along the section of the underground transfer line north of the Truck loading rack where the leak was identified in the pipeline. The soil borings will be drilled to the top of the uppermost potentially competent aquitard. Based on the boring log for nearby well MKTF-18, a clay aquitard was present from a depth of 10 feet below ground level (bgl) to 23 feet bgl. It is anticipated that the gasoline is likely pooled on top of this clay interval and to avoid providing a direct vertical conduit to lower permeable layers the soil borings will be terminated in the clay. In addition to collection of soil samples, groundwater samples will also be collected from these locations if groundwater is encountered and SPH is not present.

A new permanent monitoring well will be installed west of the Truck loading rack. The well is proposed to be located approximately midway between MTKF-17, which now contains SPH as a result of the gasoline release, and MKTF-33 that does not contain measurable SPH.

4.2 Soil Sample Field Screening and Logging

Samples obtained from the soil borings will be screened in the field on 2.0-foot intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. Field screening results will be used to aid in the possible selection of soil samples for laboratory analysis. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds.

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils such as elemental sulfur or cyanide compounds. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag or a foil sealed container allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest for a minimum of 5 minutes while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag or through the foil. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each sample.

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

Discrete soil samples will be retained for laboratory analyses from within the following intervals:

- 0.0-0.5 feet (at all soil borings);
- 2.0-2.5 feet or the top of native soil if identifiable (at all soil borings);
- > 2.0 feet (from the interval in each soil boring with the greatest apparent degree of contamination, based on field observations and field screening);

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- From the bottom of each borehole (all soil borings);
 - From the 0.5 foot interval at the top of saturation (applicable only to borings that reach saturation); and
 - Any additional intervals as determined based on field screening results.

The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist or engineer. Detailed logs of each boring will be completed in the field by a qualified engineer or geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will be recorded on the logs.

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

- Field duplicates will be collected at a rate of 10 percent; and
- Equipment blanks will be collected from all sampling apparatus at a frequency of one per day.

4.2.1 Drilling Activities

Due to potential physical access limitations and high traffic concerns, the soil borings may be completed using hand augers or a geo-probe using a macrocore for shallow intervals, converting to dual tube for deeper intervals. Both soil and groundwater samples can be collected using the dual tube technology. Alternatively, hollow-stem augers may be used instead. The new permanent well will be installed using hollow-stem augers. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations. Appropriate actions (e.g., installation of protective surface casing or relocation of borings to a less threatening location) will be taken to minimize any negative impacts from investigative borings. Slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the permanent well and will extend up to 20 feet in length to ensure the water level falls within the screened interval. A 10/20 sand filter pack will be installed to a minimum of one foot over the top of the well screen.

4.3 Groundwater Sample Collection

Groundwater samples shall initially be obtained from newly installed monitoring wells between ten and 30 days after completion of well development. Well development and purging prior to sample collection will be in accordance with procedures described in Appendix C. Prior to collection of groundwater samples for laboratory analyses, the fluid levels and the total depths of each well will be measured.

Groundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposal bailers. Alternatively, well sampling may also be conducted in accordance with the NMED's Position Paper *Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (October 30, 2001, as updated). Sample collection methods will be documented in the field monitoring reports. The samples will be transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample handling and chain-of-custody procedures will be in accordance with the procedures presented below in Section 4.4.1.

Groundwater samples intended for metals analysis will be submitted to the laboratory as both total and dissolved metals samples. QA/QC samples will be collected to monitor the validity of the groundwater sample collection procedures as follows:

- Field duplicate water samples will be obtained at a frequency of ten percent, with a minimum, of one duplicate sample per sampling event;
- Equipment rinsate blanks will be obtained for chemical analysis at the rate of ten percent or a minimum of one rinsate blank per sampling day. Equipment rinsate blanks will be collected at a rate of one per sampling day if disposable sampling equipment is used. Rinsate samples will be generated by rinsing deionized water through unused or decontaminated sampling equipment. The rinsate sample will be placed in the appropriate sample container and submitted with the groundwater samples to the analytical laboratory for the appropriate analyses; and
- Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses. Trip blanks will consist of a sample of analyte-free deionized water prepared by the laboratory and placed in an appropriate sample container. The trip blank will be prepared by the analytical laboratory prior to the sampling event and will be kept with the shipping containers and placed with other water samples obtained from the

site each day. Trip blanks will be analyzed at a frequency of one for each shipping container of groundwater samples to be analyzed for VOCs.

4.3.1 Sample Handling

At a minimum, the following procedures will be used at all times when collecting samples during investigation, corrective action, and monitoring activities:

1. Neoprene, nitrile, or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample;
2. All samples collected of each medium for chemical analysis will be directly transferred from the sample retrieval device (e.g., macrocore, dual tube, split-spoon, hand auger, etc.) into clean sample containers supplied by the project analytical laboratory with the exception of soil, rock, and sediment samples obtained in Encore® samplers following EPA Method 5035. Sample container volumes and preservation methods will be in accordance with the most recent standard EPA and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis; and
3. Sample labels and documentation will be completed for each sample following procedures discussed below. Immediately after the samples are collected, they will be stored in a cooler with ice or other appropriate storage method until they are delivered to the analytical laboratory. Standard chain-of-custody procedures, as described below, will be followed for all samples collected. All samples will be submitted to the laboratory soon enough to allow the laboratory to conduct the analyses within the method holding times.

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

1. Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
2. Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage. Temperature blanks will be included with each shipping container.
3. Each cooler or other container will be delivered directly to the analytical laboratory.

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4. Glass bottles will be separated in the shipping container by cushioning material to prevent breakage.
 5. Plastic containers will be protected from possible puncture during shipping using cushioning material.
 6. The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory.
 7. Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol.
 8. Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.
 9. Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded on the form. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.
 10. Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.4 Collection and Management of Investigation Derived Waste

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

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated, if necessary. Calibration measurements will be recorded in the daily field logs. If field equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.5 Documentation of Field Activities

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

1. Site or unit designation;
2. Date;
3. Time of arrival and departure;
4. Field investigation team members including subcontractors and visitors;
5. Weather conditions;
6. Daily activities and times conducted;
7. Observations;
8. Record of samples collected with sample designations and locations specified;
9. Photographic log, as appropriate;
10. Field monitoring data, including health and safety monitoring;
11. Equipment used and calibration records, if appropriate;
12. List of additional data sheets and maps completed;
13. An inventory of the waste generated and the method of storage or disposal; and
14. Signature of personnel completing the field record.

4.6 Chemical Analyses

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

Groundwater and soil samples will be analyzed by the following methods:

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

Groundwater and soil samples will also be analyzed for the following Skinner List metals and iron and manganese using the indicated analytical methods shown. The groundwater samples collected for metals analysis will be analyzed for total and dissolved concentrations. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Inorganic Analytical Methods

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

Groundwater field measurements will be obtained for pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, turbidity, and temperature.

4.7 Data Quality Objectives

The Data Quality Objectives (DQOs) were developed to ensure that newly collected data are of sufficient quality and quantity to address the project goals, including Quality Assurance/Quality Control (QA/QC) issues (EPA, 2006). The project goals are established to determine and evaluate the

presence, nature, and extent of releases of contaminants at specified SWMUs. The type of data required to meet the project goals includes chemical analyses of soil and groundwater to determine if there has been a release of contaminants.

The quantity of data is location specific and is based on the historical operations at individual locations. Method detection limits should be 20% or less of the applicable background levels, cleanup standards and screening levels.

Additional DQOs include precision, accuracy, representativeness, completeness, and comparability. Precision is a measurement of the reproducibility of measurements under a given set of circumstances and is commonly stated in terms of standard deviation or coefficient of variation (EPA, 1987). Precision is also specific to sampling activities and analytical performance. Sampling precision will be evaluated through the analyses of duplicate field samples and laboratory replicates will be utilized to assess laboratory precision.

Accuracy is a measurement in the bias of a measurement system and may include many sources of potential error, including the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analysis techniques (EPA, 1987). An evaluation of the accuracy will be performed by reviewing the results of field/trip blanks, matrix spikes, and laboratory QC samples.

Representativeness is an expression of the degree to which the data accurately and precisely represent the true environmental conditions. Sample locations and the number of samples have been selected to ensure the data is representative of actual environmental conditions. Based on SWMU specific conditions, this may include either biased (i.e., judgmental) locations/depths or unbiased (systematic grid samples) locations. In addition, sample collection techniques (e.g., field monitoring and decontamination of sampling equipment) will be utilized to help ensure representative results.

Completeness is defined as the percentage of measurements taken that are actually valid measurements, considering field QA and laboratory QC problems. EPA Contract Laboratory Program (CLP) data has been found to be 80-85% complete on a nationwide basis and this has been extrapolated to indicate that Level III, IV, and V analytical techniques will generate data that are approximately 80% complete (EPA, 1987). As an overall project goal, the completeness goal is 85%; however, some samples may be critical based on location or field screening results and thus a

sample-by-sample evaluation will be performed to determine if the completeness goals have been obtained.

Comparability is a qualitative parameter, which expresses the confidence with which one data set can be compared to another. Industry standard sample collection techniques and routine EPA analytical methods will be utilized to help ensure data are comparable to historical and future data. Analytical results will be reported in appropriate units for comparison to historical data and cleanup levels.

Section 5

References

DiSorbo, 2016, Interim Measures Report Hydrocarbon Seep Area, Western Refining Gallup Refinery, p. 15.

EPA, 1987, Data Quality Objectives for Remedial Response Activities; United States Environmental Protection Agency, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, OSWER Directive 9355.0-7B, 85p.

EPA, 2006, Guidance on Systematic Planning Using the Data Quality Objectives Process, United States Environmental Protection Agency, Office of Environmental Information; EPA/240/B-06/001, p. 111.

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

NMED, 2019, Risk Assessment Guidance for Site Investigation and Remediation, New Mexico Environment Department.

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

Western, 2009, Facility-wide Groundwater Monitoring Plan: Gallup Refinery, p. 97.

Tables

Table 1 Fluid Levels

Table 2 Groundwater Analytical Summary

Table 3 Marketing Tanks Records

TABLE 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/13	01/21/14	MKTF-05	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	6928.33	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	6929.24	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	6928.78	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	6929.56	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	6930.02	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	6930.16	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	6930.36	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	6930.75	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	6930.81	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	6930.27	4 - 14
11/11/13	01/21/14	MKTF-06	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	6930.87	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	6931.09	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	6930.83	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	6930.10	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	6930.31	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	6930.21	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	6930.29	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	6930.58	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	6930.62	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	6930.74	8 - 20
11/11/13	01/21/14	MKTF-07	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	6936.55	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	6936.44	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	6935.78	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	6934.92	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	6935.15	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	6934.97	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	6934.95	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	6935.23	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	6935.21	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	6934.65	4 - 14

TABLE 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/11/13	01/21/14	MKTF-08	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	6935.61	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	6935.04	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	6934.51	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	6933.54	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	6933.29	8 - 18
11/11/13	01/21/14	MKTF-09	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
10/31/13	01/21/14	MKTF-10	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
10/31/13	01/21/14	MKTF-11	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
11/07/13	01/21/14	MKTF-12	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	6925.39	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	6924.84	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	6924.17	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	6923.95	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	6924.07	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	6923.98	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	6923.99	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	6924.09	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	6924.04	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	6924.40	12 - 22
			01/15/20	4.00	6,939.70	6,942.11	2.41	6,916.51	25.60	18.51	0.13	18.64	6,923.47	6923.57	12 - 22

TABLE 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/12/13	01/21/14	MKTF-13	03/26/19	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	ND	ND	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
			01/15/20	4.00	6,933.67	6,935.18	1.51	6,913.93	21.25	12.31	3.86	16.17	6,919.01	6922.10	8 - 18
11/12/13	01/21/14	MKTF-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	6924.06	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	6923.29	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	6922.32	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
			01/15/20	4.00	6,925.65	6,928.02	2.37	6,910.57	17.45	6.02	0.33	6.35	6,921.67	6921.93	4 - 14
			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	6932.50	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	6,931.46	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
			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
			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	6933.09	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	6932.76	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	6931.61	14 - 24
			01/15/20	2.00	6,945.79	6,945.76	-0.03	6,921.11	24.65	12.19	5.38	17.57	6,928.19	6932.49	14 - 24

TABLE 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/15/13	01/21/14	MKTF-18	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	6942.94	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
11/05/13	04/30/14	MKTF-19	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	6932.87	10 - 20
			01/15/20	2.00	6,944.89	6,944.67	-0.22	6,926.47	18.20	11.60	1.13	12.73	6,931.94	6932.84	
03/31/14	04/30/14	MKTF-34	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	23.13	6,922.22	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
			01/15/20	2.00	6,942.42	6,945.35	2.93	6,917.65	27.70	ND	NA	18.51	6,926.84	NA	9 - 24
11/19/14	12/16/14	MKTF-35	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 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
11/19/14	12/16/14	MKTF-36	3/25/2019 ⁵	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	NM	NA	NM	NA	NA	5 - 15
			5/14/19 ⁵	2.00	6,950.67	6,950.12	-0.55	6,934.72	15.40	NM	NA	NM	NA	NA	5 - 15
			8/19/19 ⁵	2.00	6,950.67	6,950.12	-0.55	6,934.69	15.43	NM	NA	NM	NA	NA	5 - 15
			11/06/19	2.00	6,950.67	6,950.12	-0.55	6,934.67	15.45	5.08	5.25	10.33	6,939.79	6943.99	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	6948.03	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	6946.14	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	6946.07	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	6945.88	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	6945.77	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	6945.47	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	6945.35	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	6945.12	5 - 15
			01/15/20	2.00	6,953.90	6,953.51	-0.39	6,937.90	15.61	8.08	0.57	8.65	6,944.86	6945.32	5 - 15
11/18/14	12/16/14	MKTF-37	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	6949.75	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	6950.02	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	6949.34	4 - 24
Pre-existing	12/16/14	MKTF-45	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	6937.49	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	6937.04	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	6935.48	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	6937.41	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	6937.74	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	6937.68	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	6937.43	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	6937.94	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	6937.87	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	6937.11	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	6936.64	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	6936.48	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	6936.45	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	6936.37	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	6936.41	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	6935.90	Unknown
			01/15/20	4.00	6,948.63	6,949.59	0.96	6,919.35	30.24	10.07	8.74	18.81	6,930.78	6937.77	Unknown

TABLE 1
FLUID LEVELS

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)
10/12/19	11/18/19	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
			01/15/20	2.00	6,954.73	6,957.60	2.87	6,936.31	21.29	ND	NA	10.94	6,946.66	NA	3 - 18

DEFINITIONS:

- DTB - Depth to Bottom
- DTW - Depth to Water
- ND - Not Dectected
- NA - Not Applicable
- SPH - Separate Phase Hydrocarbon
- Negative number in Stick up Length column indicates well is flush mount and located at or below ground level
- Depth to Water Column - if a measurement of 0.00 is indicated - means water level is at top of casing - Full.
- Dry indicates no water was detected in the well.

NOTES:

- 1) Wells surveyed by a licensed professional surveyor-Hammon Enterprises, Inc. (HEI)
- 2) "ND" indicates no detectable SPH level.
- 3) Depth to SPH - Depth to Water Measurement = SPH Column Thickness.
- 4) Corrected Water Table Elevaton applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Groundwater Elevation)
- 5) Not able to locate well.

Table 2
Groundwater Analyses 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 (MAR 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2018)			0.00046	1.1	0.0015	0.19	0.014
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	11/28/18	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
MKTf-4	03/16/17	8260B	4	0.056	0.51	0.23	0.15
	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
MKTf-9	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
	11/28/18	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
MKTf-10	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
	11/20/18	8260B	11	1.9	1.9	8	0.01
MKTf-11	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
MKTf-13	03/02/17	8260B	18	21	1.6	7.8	0.028
	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
MKTf-15	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
	11/28/18	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
MKTf-16	03/15/17	8260B	3	0.21	0.87	4	2.3
	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
MKTf-17	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
	11/29/18	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
MKTf-18	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
	11/28/18	8260B	0.0036	<0.005	0.025	<0.0075	5.7
MKTf-19	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
MKTf-20	03/15/17	8260B	0.29	0.0022	0.23	0.07	0.28
	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
MKTf-21	03/01/17	8260B	0.027	0.00033	0.026	0.00085	0.093

Table 2
Groundwater Analyses 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 (MAR 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2018)			0.00046	1.1	0.0015	0.19	0.014
WELL ID	DATE SAMPLED	METHOD					
MKTf-19	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
MKTf-20 ¹	03/15/17	8260B	1.8	0.0098	0.6	0.92	9
	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
MKTf-21 ¹	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
	11/29/18	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
MKTf-22	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
	11/28/18	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
MKTf-23	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
	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
MKTf-24	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
MKTf-25	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
MKTf-26	03/29/17	8260B	3	0.015	0.042	<0.03	0.19
	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
MKTf-27	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
	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
MKTf-28	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
	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
MKTf-29	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

Table 2
Groundwater Analyses 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 (MAR 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2018)			0.00046	1.1	0.0015	0.19	0.014
WELL ID	DATE SAMPLED	METHOD					
MKTf-28	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
MKTf-29	03/29/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00097
	11/15/18	8260B	<0.001	<0.001	<0.001	<0.001	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
MKTf-30	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
	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
MKTf-31	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
	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
MKTf-32	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
	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
MKTf-33	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
	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
MKTf-34	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
	11/28/18	8260B	<0.001	<0.001	<0.001	<0.0015	0.001
MKTf-35	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
MKTf-36	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
MKTf-37	03/01/17	8260B	0.053	0.00011	0.0027	<0.0015	0.0079
	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
MKTf-38	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
	11/27/18	--	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.				
MKTf-39	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
	11/20/18	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
MKTf-40	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

Table 2
Groundwater Analyses 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 (MAR 2019)			0.00455	1.09	0.0149	0.193	0.143
EPA RSL for Tap Water (NOV 2018)			0.00046	1.1	0.0015	0.19	0.014
WELL ID	DATE SAMPLED	METHOD					
MKTf-39	03/14/17	8260B	0.00017	<0.001	<0.001	<0.0015	0.00048
	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
MKTf-40	03/14/17	8260B	0.012	<0.005	0.063	<0.0075	<0.005
	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
MKTf-41	03/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.00041
	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
MKTf-42	03/07/17	8260B	<0.001	<0.001	<0.001	<0.0015	0.0012
	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
MKTf-43	03/07/17	8260B	0.0049	0.00044	0.0011	0.024	0.0011
	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
MKTf-44	03/08/17	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
MKTf-44	03/08/17	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

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.

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS																									
WQCC 20 NMAC 6.2.3.03 (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-Dichloro benzene (mg/L)	Chloro- ethane (mg/L)	Chloro- form (mg/L)	Chloro- methane (mg/L)	dis-1,2- DCC (mg/L)	1,2-Dichloro propane (mg/L)	2-Hexanone (mg/L)	Isopropyl benzene (mg/L)	4- Isopropyl toluene (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)	1,1,2- Trichloro- ethane (mg/L)	1,1,1- Trichloro- ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)			
40 CFR 141.61 MCL			NE	NE	0.005	0.00005	NE	NE	NE	NE	0.07	0.6	0.075	0.025	0.007	0.005	NE	NE	NE	0.1	NE	0.005	0.07	0.2	0.005	0.002		
NMED Tap Water (MAR 2019)			NE	NE	0.0017	0.000075	0.0114	0.035	14.06	0.00754	5.56	0.0075	0.076	20.86	0.00229	0.0203	0.0365	NE	NE	NE	0.1	NE	0.005	0.07	0.2	0.00415	0.00259	
EPA RSL for Tap Water (NOV 2018)			0.056	0.06	0.013	0.0000075	0.00017	0.0011	0.036	14	0.0075	5.6	0.0078	21	0.00022	0.19	0.036	0.3	0.0085	0.038	0.45	0.69	0.011	0.0012	8	0.00028	0.00049	
WELL ID	DATE	SAMPLED																										
MKTF-1	09/07/16	82608/8011/504.1/ED8	0.039	<0.01	0.0039	0.017	0.01	0.012														0.0028		0.00061	<0.001	0.0025	0.0011	
	02/24/16	82608	0.66	0.03	0.0091	<0.05	0.11	0.067														<0.05		<0.05	<0.05	0.022		
	11/04/15	82608	0.71	0.054		0.091	0.062	0.032	<0.05													<0.005		<0.005	<0.005	0.012		
	08/21/15	82608	0.65	0.057	<0.005		0.081	0.044														<0.005		<0.005	<0.005	<0.005		
	06/09/15	82608	0.67	0.13	<0.05		<0.1	<0.2	<0.5													<0.05		<0.05	<0.05	<0.05		
	03/11/15	82608	0.59	0.1	<0.05	<0.1	<0.1	<0.2	<0.5													<0.05		<0.05	<0.05	<0.05		
MKTF-2	11/28/18	82608/8011/504.1/ED8	0.46	0.022	<0.01	0.00000095	0.042	0.025														<0.01		<0.01	<0.01	0.028		
	08/20/18	82608/8011/504.1/ED8	0.06	<0.01	0.0078	0.00000053	0.0055	0.0034	<0.04	<0.1												<0.01		<0.01	<0.01	0.0071		
	05/01/18	82608	0.2	0.0092	0.0048	<0.01	0.023	0.016	<0.04	<0.1												<0.01		<0.01	<0.01	0.0063		
	02/06/18	82608/8011/504.1/ED8	0.18	0.005	<0.005	0.015	0.022	0.02	0.0028	<0.05												<0.05		<0.05	<0.05	0.0037		
	11/20/17	82608	0.2	0.003	0.0033	<0.005	0.027	0.031	0.0015	0.0074												<0.05		<0.05	<0.05	0.0039		
	10/03/17	82608	0.053	<0.005	0.0035	<0.005	0.0067	0.0095	<0.03	<0.05												<0.05		<0.05	<0.05	0.0051		
	03/16/17	82608/8011/504.1/ED8	0.36	0.024	<0.01	<0.01	0.044	0.031	0.0058	0.016												<0.01		<0.01	0.0042	0.0051		
MKTF-4	11/20/18	82608/8011/504.1/ED8	0.46	0.073	<0.002	<0.0000094	0.32	0.18	0.17													<0.002		<0.002	<0.002	<0.002		
	09/04/18	82608/8011/504.1/ED8	0.48	0.093	0.0043	<0.0000094	0.36	0.19	0.2	0.049												<0.01		<0.01	<0.01	<0.01		
	05/02/18	82608	0.52	0.086	<0.01	<0.01	0.32	0.19	0.17	<0.1												<0.01		<0.01	<0.01	<0.01		
	02/14/18	82608	0.42	0.068	<0.01	<0.01	0.26	0.14	0.12	<0.1												<0.01		<0.01	<0.01	<0.01		
	11/28/17	82608	0.58	0.11	<0.005	<0.005	0.42	0.25	0.26	0.016												<0.005		<0.005	<0.005	<0.005		
	09/26/17	82608	0.57	0.11	<0.005	<0.005	0.45	0.26	0.26	0.016												<0.005		<0.005	<0.005	<0.005		
	06/08/17	82608	0.47	0.08	<0.005	<0.005	0.33	0.18	0.15	0.023												<0.005		<0.005	<0.005	<0.005		
MKTF-9	03/02/17	82608	0.49	0.088	0.0025	<0.005	0.37	0.2	0.2	<0.05												<0.002		<0.002	<0.002	<0.002		
	11/28/18	82608	0.11	<0.02	<0.02	<0.02	0.062	0.07	0.014	<0.2												<0.01		<0.01	<0.01	0.028		
	06/08/17	82608	0.99	<0.02	<0.02	<0.02	0.073	0.076	0.017	<0.2												<0.02		<0.02	<0.02	<0.02		
	09/04/18	82608	0.095	<0.01	<0.01	<0.01	0.062	0.08	0.0099	<0.1												<0.03		<0.03	<0.03	<0.03		
	02/14/18	82608	0.086	0.0013	<0.01	<0.01	0.05	0.064	0.009	<0.1												<0.03		<0.03	<0.03	<0.03		
	11/28/17	82608	0.093	0.0028	<0.01	<0.01	0.057	0.08	0.016	<0.1												<0.03		<0.03	<0.03	<0.03		
	09/28/17	82608	0.095	<0.01	<0.01	<0.01	0.083	0.098	0.016	<0.1												<0.03		<0.03	<0.03	<0.03		
	03/15/17	82608	0.087	0.0013	<0.01	<0.01	0.062	0.091	0.013	<0.1												<0.01		<0.01	<0.01	<0.01		
	03/15/17	82608	0.078	0.0017	<0.01	<0.01	0.051	0.08	0.01	0.013												<0.01		<0.01	<0.01	<0.01		
MKTF-10	11/20/18	82608	1.1	0.25	<0.02	<0.02	0.23	0.068	0.087	<0.2												<0.06		<0.06	<0.06	<0.06		
	09/04/18	82608	1	0.23	<0.05	<0.05	0.22	0.074	0.099	<0.5												<0.05		<0.05	<0.05	<0.05		
	05/02/18	82608	1.2	0.27	<0.05	<0.05	0.24	0.088	0.1	<0.5												<0.05		<0.05	<0.05	<0.05		
	02/14/18	82608	0.97	0.23	<0.05	<0.05	0.2	0.067	0.083	<0.5												<0.05		<0.05	<0.05	<0.05		
	11/28/17	82608	1	0.25	<0.1	<0.1	0.24	0.11	0.13	<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</																		

Table 2
Groundwater Analyses Summary

STANDARDS		WQCC 20 NMHC 6.2 3103 (DEC 2018)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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		EPA RSL for Tap Water (NOV 2018)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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MKTF-31	11/15/18	82608/8011/504.1/EDB	<0.001	0.027	0.0000092	<0.002	<0.004	<0.004	<0.004	<0.01	0.00045	<0.001	0.0017	0.6	0.075	0.025	0.007	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	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	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	11/18/18	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
MKTF-4	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
MKTF-9	11/28/18	300.0/8015D	1.8	9.1	<5.0	<0.5	260	0.11	<0.5	24
	09/04/18	300.0/8015D	2.4	11	<5.0	0.52	260	<0.5	<0.5	17
	05/02/18	300.0/8015D	2.6	8.2	<5.0	0.34	250	<0.5	0.21	22
	02/14/18	300.0/8015D	2.2	8.7	<5.0	0.4	220	<0.5	<0.5	27
	11/28/17	300.0/8015D	2.6	11	<5.0	0.45	220	<1.0	<1.0	27
	09/28/17	300.0/8015D	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	300.0/8015D	3.9	12	<5.0	0.33	180	<0.1	<0.1	28
MKTF-10	11/20/18	300.0/8015D	2.8	53	<5.0	<0.5	320	0.12	<0.5	<2.5
	09/04/18	300.0/8015D	2.5	57	<5.0	0.85	340	<0.5	<0.5	<2.5
	05/02/18	300.0/8015D	3.7	100	<5.0	<0.5	380	<0.5	<0.5	<2.5
	02/14/18	300.0/8015D	2.6	74	<5.0	<0.5	390	<0.5	<0.5	<2.5
	11/28/17	300.0/8015D	3.5	83	<5.0	1.1	370	<1.0	<1.0	<2.5
	09/28/17	300.0/8015D	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	300.0/8015D	5.3	110	<5.0	0.35	350	<1.0	<1.0	0.3
MKTF-11	11/20/18	300.0/8015D	1.7	41	<5.0	<0.5	1200	0.35	<0.5	1.7
	09/04/18	300.0/8015D	1.6	53	<5.0	0.75	1200	<0.5	<0.5	2
	05/02/18	300.0/8015D	2.5	72	<5.0	<0.5	850	<0.5	0.21	1.4
	02/08/18	300.0/8015D	2.2	69	<5.0	<0.5	740	0.21	0.21	1.5
	11/28/17	300.0/8015D	2.1	59	<5.0	<0.5	860	0.27	0.27	1.2
	09/26/17	300.0/8015D	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	300.0/8015D	1.7	27	<5.0	<0.5	650	<1.0	<1.0	3.4
MKTF-13	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

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTf-15	08/28/18	8015D/300.0	2.7	78	<5.0	<2.0	6400	<2.0	<2.0	1.5
	05/02/18	8015D	4	97	<5.0	<0.5	7200	<2.0	<0.5	1.3
	11/28/17	8015D	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
MKTf-16	11/29/18	300.0/8015D	2.6	34	<5.0	1.4	620	<0.5	<0.5	0.64
	08/31/18	300.0/8015D	3.3	50	<5.0	1.5	650	<1.0	<1.0	1.4
	05/11/18	300.0/8015D	2.9	47	<5.0	0.25	840	0.33	0.099	1.2
	02/15/18	300.0/8015D	2.4	8.4	<5.0	4.5	760	<0.5	0.13	57
	11/29/17	300.0/8015D	4	70	<5.0	0.63	700	<1.0	<1.0	<2.5
	09/26/17	300.0/8015D	4.7	78	<5.0	0.48	810	<1.0	<1.0	0.64
	06/08/17	300.0/8015D	4.3	60	<5.0	1.4	800	<1.0	<1.0	0.68
	03/14/17	300.0/8015D	5.9	85	<5.0	0.95	580	<2.0	<2.0	0.14
MKTf-17	11/28/18	300.0/8015D	1.6	3	<5.0	0.9	110	0.075	<0.5	120
	08/24/18	300.0/8015D	<1.0	4.7	<5.0	0.55	110	<0.5	<0.5	160
	05/04/18	300.0/8015D	1.4	7.1	<5.0	0.26	130	<0.1	0.054	68
	02/16/18	300.0/8015D	1.36	3.7	<5.0	0.74	100	<0.5	<0.5	52
	12/01/17	300.0/8015D	1.1	2.5	<5.0	0.91	92	<1.0	<1.0	97
	09/26/17	300.0/8015D	2	4.3	<5.0	0.76	83	<1.0	<1.0	22
	06/14/17	300.0/8015D	2.2	4	<5.0	0.81	70	<1.0	<1.0	66
	03/15/17	300.0/8015D	2.4	3.5	<5.0	0.73	61	<0.1	<0.1	43
MKTf-18	11/28/18	300.0/8015D	<1.0	0.12	<5.0	0.73	220	0.1	<0.5	<2.5
	08/24/18	300.0/8015D	1.6	0.97	<5.0	0.51	230	<0.5	<0.5	<2.5
	05/04/18	300.0/8015D	2.4	0.8	<5.0	0.49	230	<0.1	0.051	0.41
	02/16/18	300.0/8015D	2.8	0.85	<5.0	0.61	220	<0.5	<0.5	<2.5
	06/14/17	300.0/8015D	7.1	0.83	<5.0	<0.5	190	<1.0	<1.0	0.53
	03/01/17	300.0/8015D	2.7	0.81	<5.0	0.62	180	<1.0	<1.0	0.22
MKTf-19	11/28/18	300.0/8015D	7.8	15	<5.0	<0.5	140	0.084	<0.5	<2.5
	08/24/18	300.0/8015D	7.9	22	<5.0	<0.5	120	<0.5	<0.5	<2.5
	05/04/18	300.0/8015D	9.3	23	<5.0	<0.5	130	<0.5	<0.5	1.2
	02/16/18	300.0/8015D	11	16	<5.0	<0.5	120	<0.5	<0.5	<2.5
	12/01/17	300.0/8015D	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	300.0/8015D	11	23	<5.0	<0.5	130	<1.0	<1.0	0.73
	03/15/17	300.0/8015D	14	25	<5.0	0.098	130	<0.1	<0.1	0.52
MKTf-20	11/29/18	8015D	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	5.1	79	<5.0	0.55	3100	<2.0	<0.5	15
	11/29/17	8015D	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	16	90	<5.0	1	1100	<0.5	<0.5	5
MKTf-21	11/29/18	8015D	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	2.6	25	<5.0	<0.5	210	<1.0	<1.0	7
	09/26/17	8015D	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

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTf-22	11/28/18	8015D	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	3	23	<5.0	0.33	100	<1.0	<1.0	2
MKTf-23	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
MKTf-24	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	0.74	8.2	<5.0	<0.1	800	<1.0	<1.0	59
MKTf-25	11/15/18	300.0/8015D	<1.0	5	<5.0	<0.5	630	<0.5	<0.5	50
	08/17/18	300.0/8015D	1	17	<5.0	<0.5	540	<0.5	<0.5	23
	05/06/18	300.0/8015D	1.1	12	<5.0	<0.1	500	<1.0	<1.0	28
	02/05/18	300.0/8015D	0.58	16	<5.0	<0.5	520	<1.0	<1.0	27
	11/21/17	300.0/8015D	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	300.0/8015D	1.2	8.4	<5.0	0.054	420	<1.0	<1.0	130
	03/29/17	300.0/8015D	0.95	7.8	<5.0	0.095	380	<1.0	<1.0	100
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
MKTf-27	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

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTf-28	11/18/18	300.0/8015D	<1.0	<0.05	<5.0	1.4	400	<0.5	1.7	180
	08/20/18	300.0/8015D	<1.0	0.024	<5.0	0.48	540	<0.5	1.3	240
	05/01/18	300.0/8015D	<1.0	<0.05	<5.0	0.83	400	<0.5	2.7	150
	02/06/18	300.0/8015D	<1.0	<0.05	<5.0	1	380	2.7	2.7	180
	11/20/17	300.0/8015D	<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	300.0/8015D	<1.0	<0.05	<5.0	0.87	410	1	1	160
MKTf-29	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
MKTf-30	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
MKTf-31	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
MKTf-32	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
MKTf-33	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	300.0/8015D	<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
MKTf-34	11/28/18	300.0/8015D	<1.0	<0.05	<5.0	<0.5	210	0.089	8.4	280
	08/24/18	300.0/8015D	<1.0	<0.05	<5.0	0.32	220	<0.5	8.1	230
	05/04/18	300.0/8015D	<1.0	<0.05	<5.0	0.31	230	<0.1	8.1	250
	02/16/18	300.0/8015D	<1.0	0.012	<5.0	0.45	230	<0.5	8.4	230
	12/01/17	300.0/8015D	<1.0	0.027	<5.0	0.54	270	8	8	230
	09/26/17	300.0/8015D	<1.0	<0.05	<5.0	0.29	280	7.6	7.6	220
	06/14/17	300.0/8015D	<1.0	<0.05	<5.0	<5.0	280	8.4	8.4	210
	03/01/17	300.0/8015D	<1.0	<0.05	<5.0	0.45	310	9	9	220

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTf-35	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
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
MKTf-37	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	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	<1.0	<0.05	<5.0	0.74	130	0.26	0.26	380
MKTf-39	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	28	1.5	<5.0	0.44	1000	<2.0	<2.0	0.23
MKTf-40	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
MKTf-41	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

Table 2
Groundwater Analyses Summary

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	1	10	600
40 CFR 141.62 MCL			NE	NE	NE	4	NE	1	10	NE
NMED Tap Water (MAR 2019)			NE	NE	NE	1.18	NE	1.97	31.59	NE
EPA RSL for Tap Water (NOV 2018)			NE	NE	NE	0.8	NE	2	32	NE
NMED SSG (MAR 2019)			0.0858	0.0858	0.0858	NE	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								
MKTF-42	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
MKTF-43	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
MKTF-44	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

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.

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL ANALYSES																
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 (MAR 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 2018)			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														
MKTf-1	02/24/16	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	
	11/04/15	200.7/200.8	<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	
	08/21/15	200.7/200.8	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	
	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	
MKTf-2	06/06/14	200.7/200.8	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	
	11/28/18	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	<0.006	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	<0.006	0.57	0.0009	0.61	<0.01	0.000075	0.032	<0.01	
MKTf-4	11/20/17	200.7/200.8	0.0034	0.26	<0.002	<0.006	<0.006	<0.006	0.23	0.00062	0.6	<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	
	11/20/18	200.7/200.8	0.011	4.1	<0.002	<0.006	<0.006	5.1	0.00039	2.3	<0.001	0.0034	<0.0002	NA	0.0057	
	09/04/18	200.7/200.8	0.014	2.9	<0.002	<0.006	<0.006	5.7	0.00055	1.4	<0.001	0.0022	<0.0002	0.0041	0.0054	
MKTf-9	05/02/18	200.7/200.8	0.013	3	<0.002	<0.006	0.0042	5.3	0.001	1.7	<0.001	0.0013	<0.0002	0.004	0.0062	
	02/14/18	200.7/200.8	0.0069	2.8	<0.002	<0.006	<0.006	5.2	0.0007	1.5	0.0083	0.0021	<0.0002	0.0042	<0.01	
	11/28/17	200.7/200.8	0.015	3.5	<0.002	<0.006	<0.006	7	0.00041	1.3	0.0062	0.0013	NA	0.0019	<0.01	
	09/26/17	200.7/200.8	0.019	3.8	<0.002	<0.006	<0.006	9.4	0.0018	1.4	0.011	<0.005	<0.0002	NA	0.0045	
	06/08/17	200.7/200.8	0.011	3	<0.002	<0.006	<0.006	5	0.0012	1.5	0.012	<0.005	0.000067	0.0035	0.005	
MKTf-10	03/02/17	200.7/200.8	0.012	3.2	<0.002	<0.006	<0.006	8.2	0.0019	1.5	0.01	<0.005	0.00015	NA	0.0087	
	11/28/18	200.7/200.8	0.0023	0.52	<0.002	<0.006	<0.006	1.9	0.0008	3.9	<0.001	0.0048	NA	NA	<0.01	
	09/04/18	200.7/200.8	0.0028	0.57	<0.002	<0.006	<0.006	1.8	0.00072	4.2	<0.001	0.0035	<0.0002	0.004	<0.01	
	05/02/18	200.7/200.8	0.003	0.48	<0.002	<0.006	0.0052	2.3	0.0012	4.4	<0.001	0.0017	0.000045	0.0044	<0.05	
	02/14/18	200.7/200.8	0.0026	0.5	<0.002	<0.006	<0.006	2.3	0.0012	3.9	0.0041	0.0027	<0.0002	0.0053	<0.01	
MKTf-10	11/28/17	200.7/200.8	0.0067	0.65	<0.002	<0.006	<0.006	2.4	0.0014	3.8	<0.01	0.0025	NA	0.005	<0.01	
	09/28/17	200.7/200.8	0.004	0.61	<0.002	<0.006	0.0064	5.3	0.0043	4.8	0.0085	<0.005	<0.0002	NA	0.0072	
	06/12/17	200.7/200.8	0.0025	0.6	<0.002	<0.006	<0.006	3.5	0.0028	4.5	0.0081	0.00046	<0.0002	NA	0.003	
	03/15/17	200.7/200.8	0.0052	0.59	<0.002	<0.006	0.0065	5.2	0.0043	4.4	0.0072	<0.005	<0.0002	0.0036	0.0046	
	11/20/18	200.7/200.8	0.011	4.3	<0.002	<0.006	<0.006	8.3	0.0008	3	<0.001	0.0035	<0.0002	NA	0.0037	
MKTf-10	09/04/18	200.7/200.8	0.011	4	<0.002	<0.006	<0.006	7.7	0.00053	2.8	<0.001	0.0028	<0.0002	0.00021	<0.01	
	05/02/18	200.7/200.8	0.0088	4.7	<0.002	<0.006	<0.006	11	0.00034	3.9	<0.001	<0.005	0.000059	0.00011	<0.01	
	02/14/18	200.7/200.8	0.008	4.5	<0.002	<0.006	<0.006	12	0.0013	3.6	0.0034	0.0025	<0.0002	0.00035	0.005	
	11/28/17	200.7/200.8	0.0099	4.2	<0.002	<0.006	<0.006	9.8	0.00093	3	<0.01	0.0017	NA	<0.005	<0.01	
	09/28/17	200.7/200.8	0.007	4.1	<0.002	<0.006	0.0038	9	0.001	3	0.004	<0.005	<0.0002	NA	<0.01	
MKTf-10	06/08/17	200.7/200.8	0.0082	4.1	<0.002	<0.006	<0.006	8.3	0.0021	3.2	0.0039	<0.005	0.000065	0.00055	0.0083	
	03/02/17	200.7/200.8	0.014	4.7	<0.002	<0.006	<0.006	15	0.0051	3.5	0.0047	<0.005	0.00015	NA	0.0091	

Table 2
Groundwater Analyses Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (MAR 2019)															
EPA RSL for Tap Water (NOV 2018)															
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-11	11/20/18	200.7/200.8	0.013	3.3	<0.002	<0.006	<0.006	5.9	0.00042	4	<0.001	0.0056	<0.0002	NA	0.0058
	09/04/18	200.7/200.8	0.016	2.9	<0.002	<0.006	<0.006	7.4	<0.0025	4	<0.005	0.0041	<0.0002	0.0068	<0.01
	05/02/18	200.7/200.8	0.016	3	<0.002	<0.006	<0.006	7.8	<0.0025	3.8	<0.005	<0.005	<0.0002	0.0042	<0.01
	02/08/18	200.7/200.8	0.012	2.6	<0.002	<0.006	<0.006	7.4	0.00066	3	0.0039	0.003	0.000071	0.0047	0.0043
	11/28/17	200.7/200.8	0.016	3	<0.002	<0.006	<0.006	7.6	<0.0025	3.2	<0.005	0.0019	NA	0.0054	<0.01
	09/26/17	200.7/200.8	0.013	3.1	<0.002	<0.006	<0.006	12	0.0034	3.3	0.0063	<0.005	<0.0002	NA	0.0086
	06/08/17	200.7/200.8	0.014	2.2	<0.002	<0.006	<0.006	6.1	0.00084	2.7	0.0031	<0.005	0.000065	0.003	0.0055
	03/02/17	200.7/200.8	0.019	2.3	<0.002	<0.006	<0.006	6.7	0.00063	3.1	0.0037	<0.005	0.00015	NA	0.0038
	11/28/18	200.7/200.8	0.0044	5.9	<0.002	<0.006	<0.006	16	0.0008	4.4	<0.001	0.006	NA	NA	<0.01
	08/30/18	200.7/200.8	0.0047	5.8	<0.002	<0.006	<0.006	19	0.00063	4.7	<0.001	0.0042	0.000038	0.00029	0.0068
MKTf-13	05/10/18	200.7/200.8	0.0027	5.7	<0.002	<0.006	<0.006	17	0.00067	4.6	0.0031	0.0038	0.000046	0.00043	<0.01
	03/15/17	200.7/200.8	0.0056	5	<0.002	<0.006	<0.006	18	0.0021	4.1	0.0075	<0.005	<0.0002	0.00073	0.0048
MKTf-15	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
MKTf-15	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
MKTf-15	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
	11/29/18	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
MKTf-16	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
MKTf-16	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
MKTf-16	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
	11/28/18	200.7/200.8	0.0066	0.46	<0.002	<0.006	<0.006	2	0.00042	2.2	<0.001	0.0032	NA	NA	0.0036
MKTf-16	08/24/18	200.7/200.8	0.007	0.42	<0.002	<0.006	0.0049	1.7	0.00036	2.4	<0.001	0.0029	0.000064	0.0061	0.0042
	05/04/18	200.7/200.8	0.0071	0.45	<0.002	<0.006	<0.006	1.8	0.00026	2.8	<0.001	0.0015	<0.0002	0.005	0.004
MKTf-17	02/16/18	200.7/200.8	0.0021	0.44	<0.002	<0.006	<0.006	1.7	<0.0005	2.6	0.0085	0.0014	<0.0002	0.0055	<0.01
	12/01/17	200.7/200.8	0.0041	0.62	<0.002	<0.006	<0.006	1.9	0.00065	2.3	<0.01	0.0013	<0.0002	0.0046	<0.01
MKTf-17	09/26/17	200.7/200.8	0.008	0.77	<0.002	<0.006	<0.006	4.2	0.0014	2.9	0.0056	<0.005	<0.0002	NA	0.0044
	06/14/17	200.7/200.8	0.008	0.56	<0.002	0.0022	<0.006	3.8	0.0032	2.5	0.0029	<0.005	<0.0002	NA	0.03
MKTf-17	03/15/17	200.7/200.8	0.0078	0.76	<0.002	<0.006	0.0052	6.5	0.0026	2.8	0.0035	<0.005	<0.0002	0.0057	0.0059
	11/28/18	200.7/200.8	0.0018	1.4	<0.002	0.0048	0.0032	2.5	0.00042	1.9	<0.0005	0.0028	NA	NA	0.004
MKTf-18	08/24/18	200.7/200.8	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
	05/04/18	200.7/200.8	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
MKTf-18	02/16/18	200.7/200.8	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
	06/14/17	200.7/200.8	<0.005	2.4	<0.002	0.0048	0.0032	7	0.0088	2.3	0.0041	<0.005	<0.0002	NA	0.02
MKTf-18	03/01/17	200.7/200.8	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
	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
MKTf-19	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
MKTf-19	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
MKTf-19	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
MKTf-19	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
	11/29/18	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
MKTf-20	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
MKTf-20	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

MKTf-20

Table 2
Groundwater Analyses Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (MAR 2019)															
EPA RSL for Tap Water (NOV 2018)															
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)
MKTFF-20	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
	11/29/18	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
MKTFF-21	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
MKTFF-22	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
	11/28/18	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
MKTFF-23	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	0.0017	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
MKTFF-24	06/10/16	200.7/200.8	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
	02/25/16	200.7/200.8	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
	11/10/15	200.7/200.8	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
	08/21/15	200.7/200.8	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
	06/09/15	200.7/200.8	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
MKTFF-25	03/12/15	200.7/200.8	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
	11/17/14	200.7/200.8	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
	11/15/18	200.7/200.8	0.0026	0.28	<0.002	<0.006	0.0048	0.7	0.0018	2	<0.001	0.0038	0.000042	0.012	0.0037
	08/20/18	200.7/200.8	0.0029	0.27	<0.002	0.002	<0.006	1.2	0.0032	1.8	<0.001	0.0029	<0.0002	0.016	0.013
	05/01/18	200.7/200.8	0.003	0.27	<0.2	<0.006	<0.006	1.3	0.0026	2.1	<0.005	<0.005	0.000061	0.015	0.006
MKTFF-26	02/06/18	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	0.78	0.0027	2.2	<0.01	0.0023	0.000087	0.016	0.011
	11/20/17	200.7/200.8	0.0028	0.26	<0.002	<0.006	0.0048	1.4	0.0031	2.1	<0.005	0.0017	<0.0002	0.014	<0.01
	10/03/17	200.7/200.8	0.0039	0.42	<0.002	0.009	0.0084	8.3	0.011	1.8	0.0052	<0.005	<0.0002	NA	0.019
	06/05/17	200.7/200.8	0.0029	0.27	<0.002	0.0021	0.0035	1.9	0.0037	2.1	0.0053	<0.005	0.000045	0.017	0.0055
	03/29/17	200.7/200.8	0.006	1.4	<0.002	0.0028	0.037	24	0.043	3.9	0.01	<0.005	0.00013	0.03	0.061
MKTFF-27	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
MKTFF-28	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
	06/09/16	200.7/200.8	0.005	0.75	<0.002	0.011	0.028	20	0.03	1.6	0.0061	<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
MKTFF-29	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
	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

Table 2
Groundwater Analyses Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (MAR 2019)															
EPA RSL for Tap Water (NOV 2018)															
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-27	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
MKTf-28	11/15/18	200.7/200.8	0.0017	0.071	<0.002	<0.006	<0.006	1	0.00095	0.069	<0.001	<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	<0.001	<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	<0.005	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	0.0019	0.093	<0.01	<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	<0.01	<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	0.011	<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	0.012	<0.005	<0.0002	0.16	0.0057
MKTf-29	03/29/17	200.7/200.8	0.0089	0.36	<0.002	0.0093	0.013	21	0.025	0.89	0.014	<0.005	0.000088	0.16	0.079
	11/15/18	200.7/200.8	0.0015	0.037	<0.002	<0.006	0.0051	0.24	0.00023	0.47	<0.001	0.0023	<0.0002	0.081	0.0034
	08/20/18	200.7/200.8	0.002	0.15	<0.002	0.004	0.0078	4.5	0.0023	0.6	<0.001	0.0018	<0.0002	0.085	0.012
	05/01/18	200.7/200.8	0.0021	0.15	<0.002	0.0031	0.0052	3.7	0.0017	0.55	<0.005	<0.005	0.00006	0.084	0.01
	02/06/18	200.7/200.8	0.00014	0.17	<0.002	0.0052	0.0072	3.9	0.0025	0.65	<0.01	<0.005	0.0001	0.01	0.014
	11/20/17	200.7/200.8	0.0023	0.32	<0.002	<0.006	0.012	8	0.006	1.1	0.0023	<0.005	<0.0002	0.0094	0.016
	10/03/17	200.7/200.8	0.002	0.11	<0.002	0.0036	0.0048	2.9	0.0021	0.73	0.0027	<0.005	<0.0002	NA	0.0085
MKTf-30	06/05/17	200.7/200.8	0.0022	0.22	<0.002	0.0073	0.0075	5.5	0.0038	0.74	0.0033	<0.005	0.000057	0.012	0.011
	03/29/17	200.7/200.8	0.0019	0.1	<0.002	0.004	0.0034	2.8	0.0016	0.47	0.0022	<0.005	<0.0002	0.012	0.0059
	11/15/18	200.7/200.8	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	200.7/200.8	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	200.7/200.8	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	200.7/200.8	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	200.7/200.8	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
MKTf-31	10/03/17	200.7/200.8	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	200.7/200.8	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	200.7/200.8	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
	11/15/18	200.7/200.8	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
	08/17/18	200.7/200.8	<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
	05/06/18	200.7/200.8	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
	02/05/18	200.7/200.8	<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
MKTf-31	11/21/17	200.7/200.8	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
	09/25/17	200.7/200.8	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
	06/05/17	200.7/200.8	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
	03/07/17	200.7/200.8	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
	11/15/18	200.7/200.8	0.0026	0.07	<0.002	<0.006	0.0042	0.81	0.00099	0.1	<0.001	<0.005	0.000047	0.055	0.0068
	08/28/18	200.7/200.8	0.0032	0.12	<0.002	<0.006	0.0083	2.9	0.0023	0.11	<0.001	<0.005	0.000083	0.055	0.014
	05/09/18	200.7/200.8	0.0029	0.055	<0.002	<0.006	0.0049	0.51	0.00043	0.06	<0.001	<0.005	0.000058	0.058	<0.01
MKTf-32	02/07/18	200.7/200.8	<0.005	0.1	<0.002	0.0031	0.0064	2.1	0.0019	0.11	<0.01	<0.005	0.000096	0.06	0.013
	11/27/17	200.7/200.8	<0.005	0.067	<0.002	<0.006	0.0042	0.75	<0.0025	0.079	<0.005	<0.005	<0.0002	0.058	<0.01
	09/25/17	200.7/200.8	0.0035	0.1	<0.002	0.0035	<0.006	2.2	0.0021	0.15	0.0045	0.0013	0.000069	NA	<0.01
	06/06/17	200.7/200.8	0.0046	0.22	<0.002	0.0064	0.011	6.4	0.0055	0.23	0.0063	<0.005	0.000068	0.065	0.024
	03/07/17	200.7/200.8	0.0046	0.055	<0.002	<0.006	<0.006	0.51	0.00083	0.08	0.0091	<0.005	<0.0002	NA	0.003
	11/28/18	200.7/200.8	0.001	0.13	<0.002	<0.006	0.0045	2.7	0.0019	0.45	<0.001	0.0024	NA	NA	0.007
	08/30/18	200.7/200.8	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
MKTf-32	05/10/18	200.7/200.8	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
	02/08/18	200.7/200.8	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

MKTf-32

Table 2
Groundwater Analyses Summary

STANDARDS											
WQCC 20 NMAC 6.2.3103 (DEC 2018)	WELLID		DATE SAMPLED	METHOD							
	40 CFR 141.62 MCL										
	NMED Tap Water (MAR 2019)										
	EPA RSL for Tap Water (NOV 2018)										
MKTTF-33	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									
	11/28/18	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									
MKTTF-34	06/14/17	200.7/200.8									
	03/01/17	200.7/200.8									
	11/28/18	200.7/200.8									
	08/23/18	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									
MKTTF-35	11/28/18	200.7/200.8									
	08/23/18	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									
	09/05/18	200.7/200.8									
	05/03/18	200.7/200.8									
MKTTF-36	02/15/18	200.7/200.8									
	11/30/17	200.7/200.8									
	09/27/17	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									
	08/23/18	200.7/200.8									
MKTTF-37	05/03/18	200.7/200.8									
	03/01/17	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									
	11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										
11/28/18	200.7/200.8										
08/23/18	200.7/200.8										
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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										
11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										
11/28/18	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										
11/28/17	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										
11/28/18	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										

Table 2
Groundwater Analyses Summary

STANDARDS															
WQCC 20 NMAC 6.2.3103 (DEC 2018)															
40 CFR 141.62 MCL															
NMED Tap Water (MAR 2019)															
EPA RSL for Tap Water (NOV 2018)															
WELLID	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-38	11/20/18	200.7/200.8	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
	08/21/18	200.7/200.8	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
	05/03/18	200.7/200.8	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
	02/12/18	200.7/200.8	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
	11/30/17	200.7/200.8	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
	09/28/17	200.7/200.8	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
	06/21/17	200.7/200.8	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
	03/14/17	200.7/200.8	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
	11/20/18	200.7/200.8	0.0021	13	<0.002	<0.006	0.0057	12	0.0044	2.6	<0.001	0.0052	<0.0002	NA	0.011
	08/21/18	200.7/200.8	0.0029	11	<0.002	<0.006	0.0048	12	0.0033	2.2	<0.05	0.0043	0.000067	0.00055	0.0065
MKTf-39	05/06/18	200.7/200.8	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
	02/08/18	200.7/200.8	0.0027	26	<0.002	<0.006	<0.006	24	0.0047	4.2	0.011	0.0066	0.000074	0.00035	0.0034
	11/28/17	200.7/200.8	0.0072	13	<0.002	<0.006	0.0066	13	0.0039	1.9	0.0061	0.0019	NA	<0.0025	0.0064
	09/28/17	200.7/200.8	0.0046	35	<0.002	<0.006	0.0021	34	0.0026	5.5	0.016	<0.005	<0.0002	NA	0.0065
	06/08/17	200.7/200.8	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
	03/14/17	200.7/200.8	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
	11/15/18	200.7/200.8	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
	08/17/18	200.7/200.8	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
	05/06/18	200.7/200.8	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
	02/05/18	200.7/200.8	<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
MKTf-40	11/21/17	200.7/200.8	<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
	09/25/17	200.7/200.8	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
	06/05/17	200.7/200.8	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
	03/07/17	200.7/200.8	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
	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
MKTf-41	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
	11/15/18	200.7/200.8	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
	08/29/18	200.7/200.8	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
	05/09/18	200.7/200.8	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
	02/07/18	200.7/200.8	<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
	11/27/17	200.7/200.8	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
	09/25/17	200.7/200.8	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
	06/06/17	200.7/200.8	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
	03/07/17	200.7/200.8	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
MKTf-42	11/20/18	200.7/200.8	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
	08/21/18	200.7/200.8	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
	05/03/18	200.7/200.8	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
	02/12/18	200.7/200.8	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
	11/30/17	200.7/200.8	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
	09/28/17	200.7/200.8	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
	06/21/17	200.7/200.8	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
	03/14/17	200.7/200.8	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
	11/20/18	200.7/200.8	0.0021	13	<0.002	<0.006	0.0057	12	0.0044	2.6	<0.001	0.0052	<0.0002	NA	0.011
	08/21/18	200.7/200.8	0.0029	11	<0.002	<0.006	0.0048	12	0.0033	2.2	<0.05	0.0043	0.000067	0.00055	0.0065

Table 2
Groundwater Analyses Summary

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 (MAR 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 2018)		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												
MKTf-43	11/15/18	0.005	0.091	<0.002	<0.006	0.011	0.95	0.00094	0.22	0.0011	0.011	0.000047	0.032	0.0039
	08/30/18	0.0058	0.16	<0.002	<0.006	<0.006	0.25	<0.0025	0.43	<0.005	0.012	0.000051	0.021	0.0066
	05/09/18	0.0057	0.19	<0.002	<0.006	0.011	6	0.0091	3.2	0.034	0.02	0.000061	0.12	0.017
	02/07/18	0.0058	0.17	<0.002	<0.006	0.012	4.7	0.005	4.9	0.023	0.029	0.000091	0.14	0.018
	11/27/17	<0.01	0.13	<0.002	<0.006	0.011	2.4	0.0026	6.8	<0.05	0.022	<0.0002	0.13	<0.01
	09/25/17	0.016	0.1	<0.002	<0.006	<0.006	1.4	0.0015	8.4	0.045	<0.005	<0.0002	NA	<0.01
	06/06/17	0.013	0.16	<0.002	<0.006	<0.006	4.1	0.0048	7.1	0.043	<0.005	<0.0002	0.16	0.014
	03/08/17	0.033	0.12	<0.01	<0.03	<0.03	2.6	<0.025	11	0.082	<0.005	<0.0002	NA	0.016
	11/15/18	0.0077	0.12	<0.002	0.01	0.0066	7.8	0.0075	0.23	0.0096	<0.005	0.000058	0.18	0.036
	08/30/18	0.0048	0.071	<0.002	0.0046	<0.006	0.89	0.00081	0.016	0.01	<0.005	0.000039	0.16	0.0052
MKTf-44	05/10/18	0.0083	0.084	<0.002	0.0064	<0.006	5.5	0.0041	0.062	0.012	<0.005	0.000071	0.19	0.013
	02/08/18	0.0095	0.096	<0.002	0.0088	<0.006	4.7	0.0056	0.092	0.011	<0.005	0.000079	0.18	0.02
	11/28/17	<0.05	0.13	<0.002	0.0098	0.0052	6.5	0.0054	0.092	0.0089	<0.005	NA	0.15	0.02
	09/25/17	0.0033	0.16	<0.002	0.013	<0.006	<0.02	<0.0005	0.00064	0.012	<0.005	<0.0002	NA	0.011
	06/05/17	0.0039	0.21	<0.002	0.016	0.0031	4.1	0.0052	0.14	0.011	<0.005	0.000058	0.13	0.014
	03/08/17	0.012	0.97	<0.002	0.038	<0.006	3.1	0.0042	0.08	0.025	<0.005	<0.0002	NA	0.013

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

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED ANALYSES														
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 (MAR 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 (NOV 2018)		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-1	02/24/16	0.0018	3.2	<0.002	<0.006	<0.006	5.2	<0.0025	2.1	<0.005	0.0046	0.00017	0.077	
	11/04/15	<0.005	2.7	<0.002	<0.006	<0.006	4.7	<0.0005	1.9	<0.005	0.0072	<0.0005	<0.01	
	08/21/15	<0.005	2.4	<0.002	<0.006	<0.006	4	<0.0025	1.9	<0.005	<0.005	<0.025	<0.01	
	06/09/15	<0.005	2.3	<0.002	<0.006	<0.006	4.7	<0.005	2.1	<0.005	0.0056	<0.005	<0.01	
	03/11/15	<0.01	2	<0.002	<0.006	<0.006	4.4	<0.001	1.9	<0.005	<0.02	<0.001	<0.01	
	06/06/14	<0.005	1.4	<0.002	<0.006	<0.006	4.7	<0.005	1.7	<0.005	0.013	<0.01	0.028	
MKTf-2	11/28/18	<0.005	0.43	<0.002	<0.006	<0.006	0.078	<0.0005	0.75	<0.005	<0.005	NA	0.025	
	08/20/18	0.0025	0.27	<0.002	<0.006	<0.006	0.027	0.00024	0.51	0.0022	<0.001	0.039	0.0071	
	05/01/18	0.0021	0.26	<0.002	<0.006	<0.006	0.03	0.00028	0.57	<0.005	<0.005	0.024	0.0051	
	02/06/18	0.0037	0.28	<0.002	<0.006	<0.006	0.022	0.00052	0.55	0.0025	<0.005	0.03	0.007	
	11/20/17	0.0028	0.28	<0.002	<0.006	<0.006	0.03	0.00035	0.56	<0.005	<0.005	0.036	0.0037	
	10/03/17	0.0058	0.33	<0.002	<0.006	<0.006	1.5	0.00018	0.92	<0.005	0.0081	NA	0.034	
MKTf-4	03/16/17	0.0016	0.31	<0.002	<0.006	<0.006	0.089	0.00025	0.67	<0.005	0.0029	0.024	0.015	
	11/20/18	0.0075	2.6	<0.002	<0.006	<0.006	1	<0.0005	1.5	0.0023	<0.001	NA	0.029	
	09/04/18	0.011	3.1	<0.002	<0.006	<0.006	3.2	<0.0005	1.5	0.0031	<0.001	0.0032	0.012	
	05/02/18	0.01	2.6	<0.002	<0.006	<0.006	2.4	<0.0005	1.5	<0.005	<0.001	0.0038	0.0068	
	02/14/18	<0.02	2.8	<0.002	<0.006	<0.006	1.9	<0.0005	1.5	0.0024	<0.02	0.0044	0.0082	
	11/28/17	0.0098	3.1	<0.002	<0.006	<0.006	3.7	<0.0025	1.3	<0.005	<0.01	0.0017	<0.01	
MKTf-9	09/26/17	0.17	3.7	<0.002	<0.006	<0.006	7.6	<0.0005	1.4	<0.005	<0.05	NA	0.034	
	06/08/17	0.0097	2.9	<0.002	<0.006	0.0055	0.81	<0.0005	1.4	<0.005	0.0091	0.0034	0.011	
	03/02/17	0.012	3	<0.002	<0.006	<0.006	4.8	<0.0005	1.4	<0.005	0.01	NA	0.026	
	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	
MKTf-10	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	
	11/20/18	0.008	4	<0.002	<0.006	<0.006	6.1	<0.0005	2.9	0.0029	<0.001	NA	0.027	

Table 2
Groundwater Analyses Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (MAR 2019)														
EPA RSL for Tap Water (NOV 2018)														
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-11	11/20/18	200.7/200.8	0.0098	3.2	<0.002	<0.006	<0.006	3.8	<0.0005	4	0.0052	<0.001	NA	0.04
	09/04/18	200.7/200.8	0.013	3	<0.002	<0.006	<0.006	5.2	<0.0005	4.1	0.0044	<0.001	0.006	0.0083
	05/02/18	200.7/200.8	0.015	2.5	<0.002	<0.006	<0.006	6.2	<0.0005	3.3	<0.005	<0.005	0.0045	0.0091
	02/08/18	200.7/200.8	0.012	2.4	<0.002	<0.006	<0.006	6.1	<0.0005	3	0.0032	0.0045	0.0042	0.0062
	11/28/17	200.7/200.8	0.013	2.8	<0.002	<0.006	<0.006	5.8	<0.0005	3	<0.005	<0.005	0.0056	<0.05
	09/26/17	200.7/200.8	0.011	2.9	<0.002	<0.006	<0.006	6.8	<0.0005	3.1	<0.005	0.0042	NA	0.03
	06/08/17	200.7/200.8	0.014	2.1	<0.002	<0.006	<0.006	5.1	<0.0005	2.6	<0.005	0.0046	0.003	0.011
	03/02/17	200.7/200.8	0.018	2.2	<0.002	<0.006	<0.006	5.1	<0.0005	3	0.0014	0.0035	NA	0.031
MKTf-13	11/28/18	200.7/200.8	0.0025	5.6	<0.002	<0.006	<0.006	10	<0.0005	4.4	0.0037	<0.001	NA	0.017
	08/30/18	200.7/200.8	0.0034	5.8	<0.002	<0.006	<0.006	16	<0.0005	5.1	0.0035	<0.001	0.00031	0.011
	05/10/18	200.7/200.8	0.0031	5.7	<0.002	<0.006	<0.006	14	<0.0025	4.6	0.0023	<0.005	<0.005	<0.05
	03/15/17	200.7/200.8	0.0055	4.7	<0.002	<0.006	<0.006	18	0.00023	3.9	<0.005	<0.01	0.00034	0.034
MKTf-15	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
MKTf-16	11/29/18	200.7/200.8	0.015	1.4	<0.002	<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	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	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	0.019	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	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	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	1.4	<0.0025	1.7	<0.005	0.018	0.0087	0.014
MKTf-17	03/14/17	200.7/200.8	0.01	1.9	<0.002	<0.006	<0.006	4.7	0.00078	1.8	<0.005	<0.02	0.0012	0.027
	11/28/18	200.7/200.8	0.0085	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	0.0048	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	0.0049	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	0.0067	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	0.0033	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	0.0065	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	0.0079	0.74	<0.002	<0.006	<0.006	2.9	<0.0005	2.7	<0.005	<0.005	NA	0.0095
MKTf-18	03/15/17	200.7/200.8	0.005	0.76	<0.002	<0.006	<0.006	1.3	<0.0005	2.6	<0.005	<0.005	0.0054	0.023
	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

Table 2
Groundwater Analyses Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (MAR 2019)														
EPA RSL for Tap Water (NOV 2018)														
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-34	11/28/18	200.7/200.8	0.0087	0.035	<0.002	<0.006	<0.006	<0.02	<0.0005	0.0004	<0.005	0.0022	0.036	0.026
	08/24/18	200.7/200.8	0.0011	0.045	<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	0.05	<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	0.049	<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	0.063	<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	0.06	<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	0.072	<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	0.079	<0.002	<0.006	<0.006	<0.02	<0.0005	0.00076	<0.005	0.0045	NA	0.028
MKTf-35	11/28/18	200.7/200.8	<0.001	0.31	<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	0.37	<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	0.31	<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	0.26	<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	0.29	<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	0.31	<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	0.13	<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	0.06	<0.002	<0.006	<0.006	3.1	<0.0005	3.3	<0.005	0.004	NA	0.023
MKTf-36	09/05/18	200.7/200.8	0.015	5.9	<0.002	<0.006	<0.006	13	0.0018	1.7	0.0024	<0.001	<0.0005	0.01
	05/03/18	200.7/200.8	0.011	5.7	<0.002	<0.006	<0.006	12	0.0016	1.9	<0.005	<0.001	0.00011	0.0096
	02/15/18	200.7/200.8	0.0085	5.8	<0.002	<0.006	<0.006	14	0.002	1.9	<0.005	0.0037	<0.0005	0.006
	11/30/17	200.7/200.8	0.011	5.7	<0.002	<0.006	<0.006	13	0.002	1.7	<0.005	<0.005	0.00047	0.0063
	09/27/17	200.7/200.8	0.016	4.7	<0.002	<0.006	<0.006	13	0.0022	1.7	<0.005	0.0036	NA	0.043
	06/14/17	200.7/200.8	0.013	4.7	<0.002	<0.006	<0.006	14	0.002	1.8	<0.005	0.0026	NA	0.012
	03/01/17	200.7/200.8	0.012	5.4	<0.002	<0.006	<0.006	17	0.002	2.1	<0.005	0.0036	NA	0.022
	08/23/18	200.7/200.8	0.0024	0.96	<0.002	<0.006	<0.006	0.99	0.00088	0.55	<0.005	<0.001	0.019	0.0081
MKTf-37	05/03/18	200.7/200.8	0.0025	1.1	<0.002	<0.006	<0.006	1.9	0.0011	0.67	<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	1.1	<0.005	0.004	NA	0.024
	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
MKTf-38	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

Table 2
Groundwater Analyses Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (MAR 2019)														
EPA RSL for Tap Water (NOV 2018)														
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-39	11/20/18	200.7/200.8	0.001	13	<0.002	<0.006	<0.006	10	<0.0005	2.3	0.0077	<0.001	NA	0.021
	08/21/18	200.7/200.8	<0.005	11	<0.002	<0.006	<0.006	11	<0.0025	2	0.003	<0.005	<0.0025	0.01
	05/06/18	200.7/200.8	0.0011	5.6	<0.002	<0.006	0.0046	4.9	0.00027	9.96	0.0044	<0.001	<0.0005	0.0043
	02/08/18	200.7/200.8	0.0061	25	<0.002	<0.006	<0.006	22	<0.0005	4.2	0.0083	0.0094	<0.0005	0.0055
	11/28/17	200.7/200.8	0.0027	12	<0.002	<0.006	<0.006	12	<0.0025	2	<0.005	0.0099	<0.0025	<0.01
	09/28/17	200.7/200.8	0.0042	34	<0.002	<0.006	<0.006	31	<0.0025	5.2	<0.005	0.013	NA	0.034
	06/08/17	200.7/200.8	0.0051	6.7	<0.002	<0.006	<0.006	7.3	0.00087	1.3	<0.005	0.016	0.00013	0.084
	03/14/17	200.7/200.8	0.0032	5.6	<0.002	<0.006	<0.006	6.3	0.00032	1.2	<0.005	0.0088	0.000079	0.022
	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
MKTf-40	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
	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
MKTf-41	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
	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
MKTf-42	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
	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
MKTf-43	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	0.022	<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	0.028	<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

Table 2
Groundwater Analyses Summary

STANDARDS														
WQCC 20 NMAC 6.2.3103 (DEC 2018)														
40 CFR 141.62 MCL														
NMED Tap Water (MAR 2019)														
EPA RSL for Tap Water (NOV 2018)														
WELL ID	DATE SAMPLED	METHOD												
MKTf-44	11/28/18	200.7/200.8	0.0069	0.032	<0.002	0.0027	0.0039	0.16	0.00028	0.0049	<0.005	0.009	0.18	0.016
	08/30/18	200.7/200.8	0.005	0.062	<0.002	0.004	<0.006	<0.02	<0.0005	0.0013	<0.005	0.011	0.15	0.006
	05/10/18	200.7/200.8	0.0084	0.038	<0.002	0.0044	0.0036	0.087	<0.0025	0.0034	<0.005	0.013	0.17	0.0089
	02/08/18	200.7/200.8	0.0075	0.039	<0.002	0.0033	<0.006	<0.02	<0.0005	0.00056	<0.005	<0.015	0.17	0.0057
	11/28/17	200.7/200.8	0.0054	0.076	<0.002	<0.006	<0.006	0.034	<0.0005	0.0012	<0.005	0.0097	0.14	0.005
	09/25/17	200.7/200.8	0.0033	0.16	<0.002	0.013	<0.006	<0.02	<0.0005	0.00064	<0.005	0.012	NA	0.011
	06/05/17	200.7/200.8	0.0035	0.14	<0.002	0.011	<0.006	0.044	<0.0025	0.0029	<0.005	0.012	0.13	0.012
	03/08/17	200.7/200.8	0.0043	0.96	<0.002	0.032	<0.006	<0.02	<0.0025	0.0082	<0.005	0.017	NA	0.023
			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)
			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
			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

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.

Table 2
Groundwater Analyses Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (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
			0.535	NE	0.00012	NE	0.0556	NE	0.0556	NE	NE	NE	NE	NE	0.075	14.8	0.612	0.354	0.288	0.0114	0.035	NE	0.00165	0.0004	0.17	5.76	NE
			0.53	0.013	0.00003	75	2	0.0056	0.0016	NE	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
WELL ID	DATE SAMPLED	METHOD																									
MKTf-1	02/24/16	8270C		0.0099		<0.02		<0.01		<0.01					0.026	<0.01	0.052	0.022	0.038	0.046			<0.01	0.012			
	11/04/15	8270C		0.011		<0.02		<0.01		<0.01					0.068	<0.01	0.2	0.087	0.049	0.07			0.012	0.036			
	08/21/15	8270c		0.014		<0.02		<0.01		<0.01					0.046	<0.01	0.14	0.03	0.054	0.05			<0.01	0.022			
	06/09/15	8270c		<0.01		<0.02		<0.01		<0.01					0.08	<0.01	0.34	0.16	0.076	0.05			0.022	0.031			
MKTf-2	03/11/15	8270C		0.018		<0.02		<0.01		<0.01					0.051	<0.01	0.12	<0.01	0.061	0.035			<0.01	0.023			
	06/06/14	8270C		<0.01		<0.02		<0.01		<0.01					0.05	0.02	0.31	0.31	0.06	0.031			0.028	0.019			
	11/28/18	8270C		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	<0.01			<0.01	0.03	<0.01	0.034	<0.01	0.022	0.017			<0.01	0.014			
	08/20/18	8270C		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	<0.01			<0.01	0.0099	<0.01	0.009	<0.01	0.012	0.01			<0.01	0.015			
MKTf-4	05/01/18	8270c		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	0.022	<0.01	<0.01	0.009			<0.01	0.0088			
	02/06/18	8270C		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	<0.01			<0.01	0.008	<0.01	0.031	<0.01	0.0038	0.012			<0.01	0.016			
	11/20/17	8270C		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	0.0047			<0.01	0.0093	<0.01	0.03	<0.010	0.0064	0.011			<0.01	0.014			
	10/03/17	8270C		<0.01	<0.01	0.013		<0.01	<0.01	<0.01	<0.01			<0.01	0.003	<0.01	0.0097	<0.01	<0.01	<0.01			<0.01	0.019			
MKTf-9	03/16/17	8270C		<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	0.0033			<0.01	0.011	<0.01	0.03	<0.01	0.013	0.013			<0.01	0.016			
	11/20/18	8270C	<0.01	<0.01		<0.02		<0.01	<0.01	0.015	<0.01	<0.01			<0.01	<0.01	0.1	0.11	<0.01	<0.01			<0.01	<0.01		<0.01	
	09/04/18	8270C	<0.01	<0.01		<0.02		<0.01	<0.01	0.019	<0.01	<0.01			0.0071	<0.01	0.13	0.16	<0.01	<0.01			<0.01	<0.01		<0.01	
	05/02/18	8270C	<0.01	<0.01	<0.01	<0.02		<0.01	<0.01	0.012	<0.01	<0.01			<0.01	<0.01	0.094	0.097	<0.01	<0.01			<0.01	<0.01		<0.01	
MKTf-10	02/14/18	8270C	0.0058	<0.01	<0.01	<0.02		<0.01	<0.01	0.015	<0.01	<0.01			0.0036	0.0069	0.15	0.16	<0.01	<0.01			0.0047	0.0066		<0.01	
	11/28/17	8270C	0.0068	<0.01	<0.01	<0.02		<0.01	<0.01	0.021	<0.01	<0.01			0.0054	0.0081	0.16	0.19	<0.01	<0.01			0.0068	0.0043		<0.01	
	09/26/17	8270C	0.0048	<0.01	<0.01	<0.02		<0.01	<0.01	0.019	<0.01	<0.01			0.0049	0.0074	0.18	0.22	<0.01	<0.01			0.0063	<0.01		<0.01	
	06/08/17	8270C	0.0052	<0.01	<0.01	<0.02		0.055		0.011	<0.01	<0.01			0.0054	0.0048	0.14	0.15	<0.01	<0.01			0.0064	0.0058		<0.01	
MKTf-11	03/02/17	8270C	0.0061	<0.01	<0.01	<0.02		0.0071		0.02	<0.01	<0.01			0.0038	0.0061	0.12	0.16	<0.01	<0.01			0.0061	0.0052		<0.01	
	11/28/18	8270C	<0.01	<0.01	<0.01	<0.02		<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	0.0066	0.065	0.013	<0.01	<0.01			<0.02	0.014		<0.01	
	09/04/18	8270C	<0.01	<0.01	<0.01	<0.02		<0.01	<0.01	0.0096	<0.01	<0.01			<0.01	<0.01	0.036	<0.01	<0.01	<0.01			<0.02	<0.01		<0.01	
	05/02/18	8270C	<0.01	<0.01	<0.01	<0.02		<0.01	<0.01	0.01	<0.01	<0.01			<0.01	<0.01	0.054	<0.01	<0.01	<0.01			<0.01	0.013		<0.01	
MKTf-13	02/14/18	8270C	0.0055	<0.01	<0.01	<0.02		<0.01	<0.01	0.015	<0.01	<0.01			<0.01	0.008	0.077	0.012	<0.01	<0.01			0.0073	0.014		<0.01	
	11/28/17	8270C	0.0059	<0.01	<0.01	0.014		<0.01	<0.01	0.015	<0.01	<0.01			<0.01	0.0081	0.008	0.077	<0.01	<0.01			<0.02	0.018		<0.01	
	09/28/17	8270C	0.0055	<0.01	<0.01	<0.02		<0.01	<0.01	0.015	<0.01	<0.01			0.0049	0.0085	0.089	<0.01	<0.01	<0.01			0.0086	0.012		<0.01	
	06/12/17	8270C	0.0053	<0.01	<0.01	<0.02		0.005		0.012	<0.01	<0.01			<0.01	0.0061	0.059	0.079	<0.01	<0.01			<0.02	0.013		<0.01	
MKTf-15	03/15/17	8270C	0.004	<0.01	<0.01	<0.02		0.0073		0.011	0.0037			<0.01	<0.01	0.0049	0.048	0.0047	<0.01	<0.01			0.0053	0.005		<0.01	
	11/20/18	8270C		<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	0.014	<0.01	0.034	0.051	0.0085	0.0068			<0.01	0.028			
	09/04/18	8270C		<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	0.013	0.05	0.064	0.01	0.01			<0.01	0.03			
	05/02/18	8270C		&																							

Table 2
Groundwater Analyses Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (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
			0.535	NE	0.00012	NE	0.0556	NE	0.0556	NE	NE	NE	NE	NE	0.00482	14.8	0.612	0.288	0.0114	0.035	NE	NE	0.00165	0.0004	0.17	5.76	0.117
			0.53	0.013	0.00003	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	15	NE	0.36	0.29	0.93	0.93	0.036	0.00017	0.000041	NE	5.8	0.12	0.02	
			WELL ID	DATE SAMPLED	METHOD																						
MKTf-33	09/25/17	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			
	06/06/17	8270C		<0.01	0.0081	<0.01	0.0054		<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	03/07/17	8270C	<0.01	<0.01	0.026	<0.01	0.0077		<0.01	<0.01	<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	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.01	<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			
	08/30/18	8270C	<0.01	<0.01	0.0069	<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			
MKTf-34	05/10/18	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	02/08/18	8270C	<0.01	<0.01	0.0072	<0.01	<0.01	<0.01	<0.01	<0.01	<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	8270C	<0.01	<0.01	0.0045	<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			
	09/25/17	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			
	06/08/17	8270C		<0.01	0.0068	<0.01	<0.01	<0.01	<0.01	<0.01	<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-35	03/08/17	8270C	<0.01	<0.01	0.0077	<0.02	0.0083		<0.01	<0.01	0.0037			<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	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
	08/24/18	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			
	05/04/18	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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	02/16/18	8270C	<0.01	<0.01	0.0089	<0.01	<0.01	<0.01	<0.01	<0.01	<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	12/01/17	8270C	<0.01	<0.01	0.0065	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
	09/26/17	8270C	<0.01	<0.01	0.006	<0.01	0.21		<0.01	<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	0.009	<0.02	0.0049			<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	0.0078		<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			
	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			
MKTf-37	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			
	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			
	02/15/18	8270C	<0.01	<0.01	0.008	<0.01	0.0067		<0.01	<0.01	<0.01		0.0031	<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	0.011		<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			
	09/27/17	8270C	<0.01	<0.01	0.0075	<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			
MKTf-38	06/14/17	8270C		<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			
	03/01/17	8270C	<0.01	<0.01	<0.02	<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			
	09/05/18	8270C	0.011	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.0089	<0.01	<0.01			0.0092	0.014	0.27	0.41	<0.01	<0.01	<0.01	0.01	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			</												

Table 2
Groundwater Analyses Summary

STANDARDS		Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (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	0.001	NE	0.005	NE	NE	NE
	40 CFR 141.61 MCL	NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.001	NE	NE	NE	NE
	NMED Tap Water (MAR 2019)	0.535	NE	0.00012	NE	NE	0.0556	NE	NE	NE	NE	0.00482	14.8	0.612	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 (NOV 2018)	0.53	0.013	0.00003	75	2	0.0056	0.0016	NE	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
WELL ID	DATE SAMPLED	METHOD																								
MKTf-41	08/29/18	8270C			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		
	05/09/18	8270C	<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	<0.01		
	02/07/18	8270C	<0.01		0.0095		<0.01		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	11/27/17	8270C	<0.01		0.0047		<0.01		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	09/25/17	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		
	06/06/17	8270C	<0.01		0.0088		0.0063		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	03/07/17	8270C	<0.01		0.0082		0.0077		<0.01	0.0042				<0.05	<0.05	<0.05	0.29	0.13	<0.05	<0.05			<0.01	<0.01		
	11/15/18	8270C	<0.05		0.11		<0.05		<0.05	<0.1				<0.1	<0.1	<0.1	0.2	0.3	<0.1	<0.1			<0.1	<0.1		
	08/29/18	8270C	<0.1		0.094		<0.1		<0.05	<0.05				<0.05	<0.05	<0.05	0.34	<0.05	<0.05	<0.05			<0.05	<0.05		
	05/09/18	8270C	<0.05		0.069		<0.05		<0.05	<0.05				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	<0.05		
MKTf-42	02/07/18	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		
	11/27/17	8270C	<0.05		0.052		<0.05		<0.05	0.025				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05	<0.05		
	09/25/17	8270C	<0.2		<0.4		<0.2		<0.2	<0.2				<0.2	<0.2	<0.2	0.27	<0.2	<0.2	<0.2			<0.2	<0.2		
	06/06/17	8270C	<0.01		<0.02		<0.01		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	0.0052	<0.01	<0.01			<0.01	<0.01		
	03/07/17	8270C	<0.01		<0.02		0.0096		<0.01	0.0044				0.022	<0.01	<0.01	0.15	<0.010	<0.01	<0.01			<0.01	<0.01		
MKTf-43	11/15/18	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	<0.01	<0.01			<0.01	<0.01		
	08/30/18	8270C	<0.01	<0.01	0.0064		<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	05/09/18	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		
	02/07/18	8270C	<0.01	0.0041	0.0072		<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	11/27/17	8270C	<0.01	<0.01	0.0086		<0.01	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	09/25/17	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		
	06/06/17	8270C	<0.01	<0.01	0.011		0.0091	<0.01	<0.01	0.005				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	03/08/17	8270C	<0.01	<0.01	0.0063		0.0071	<0.01	<0.01	0.0034				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	11/28/18	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	<0.05			<0.05	<0.05		
	08/30/18	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		
MKTf-44	05/10/18	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		
	02/08/18	8270C	<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			<0.01	<0.01		
	11/28/17	8270C	<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			<0.01	<0.01		
	09/25/17	8270C	<0.01		<0.02		0.024	<0.01	<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	06/05/17	8270C	<0.01		0.007		0.0067	<0.01	<0.01	0.0047				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		
	03/08/17	8270C	<0.01		0.0062		0.008	<0.01	<0.01	0.0036				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			<0.01	<0.01		

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

Table 3
Marketing Tanks Records

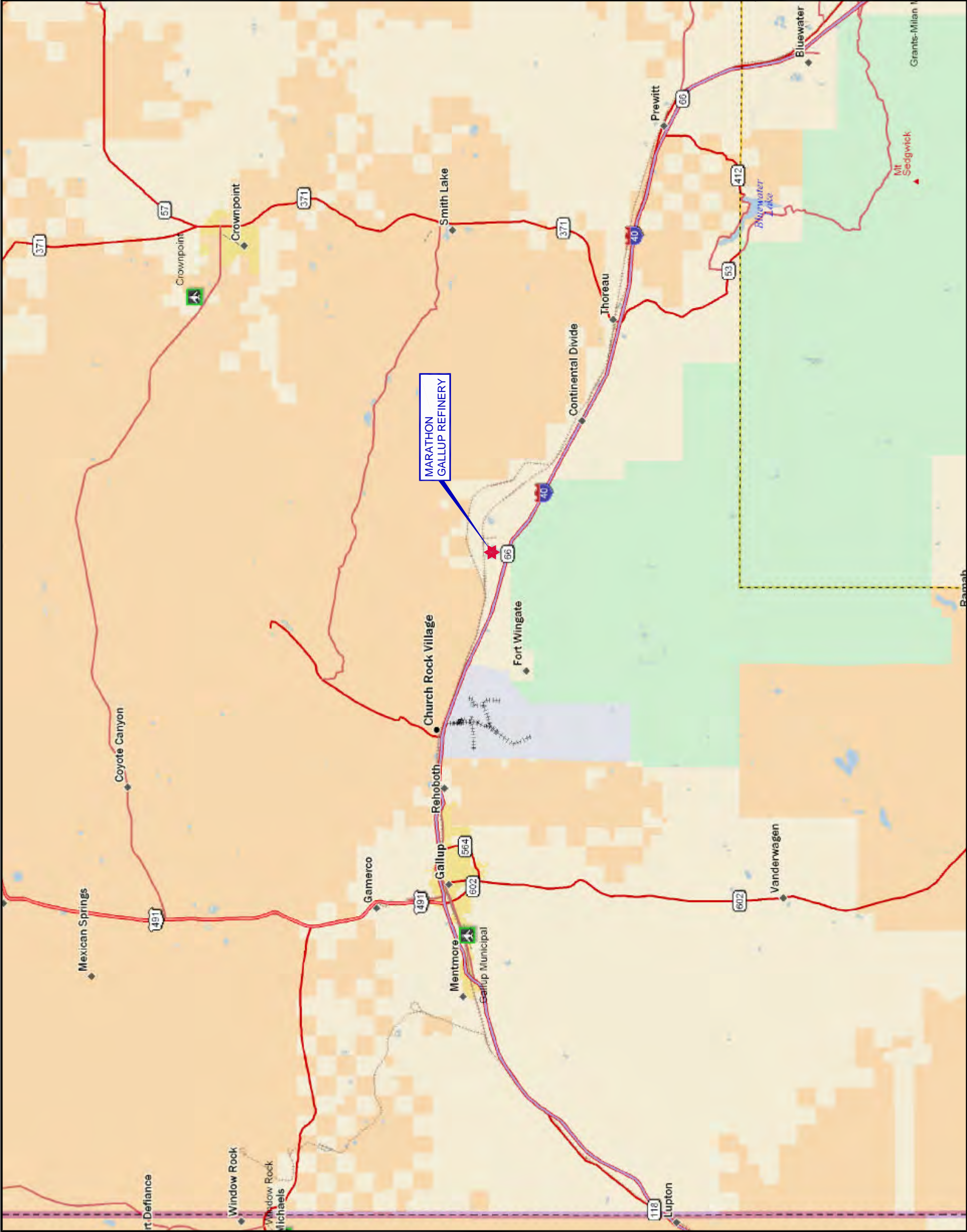
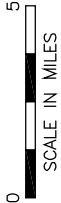
TANK NUMBER	TYPE OF TANK	YEAR BUILT	ROOF TYPE	ACTUAL CAPACITY	TANK DIAMETER	TANK HEIGHT/ LENGTH	PRODUCT
MKT-TK-01	VERT. STEEL	1965	CFRT	3000 bbl	30'-0"	24'-0"	ULSD
MKT-TK-02	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-03	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	89 OCTANE
MKT-TK-04	VERT. STEEL	1970	IFRT	3800 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-05	VERT. STEEL	1963	CFRT	1800 bbl	25'-0"	28'-0"	ETHANOL
MKT-TK-06	VERT. STEEL	1963	IFRT	1800 bbl	21'-6"	28'-0"	ETHANOL
MKT-TK-07	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	NEW-OUT OF SERVICE
MKT-TK-08	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	ULSD SALES
TK-1001	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	DIESEL
TK-1002	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	GASOLINE
TK-912	HORIZONTAL	unknown	FLATHEAD	8,000 gal	8'-0"	21'-0"	OUT OF SERVICE
TK-913	HORIZONTAL	unknown	FLATHEAD	8,000 gal	10'-0"	15'-0"	OUT OF SERVICE

CFRT - closed floating roof tank
IFRT - internal floating roof tank
ULSD - ultra low sulfur diesel

bbl - barrel
gal - gallon

Figures

- Figure 1 Site Location Map**
 - Figure 2 AOC 35 Map**
 - Figure 3 Potentiometric Map**
 - Figure 4 Benzene Concentration Map**
 - Figure 5 MTBE Concentration Map**
 - Figure 6 Proposed Sampling Locations**
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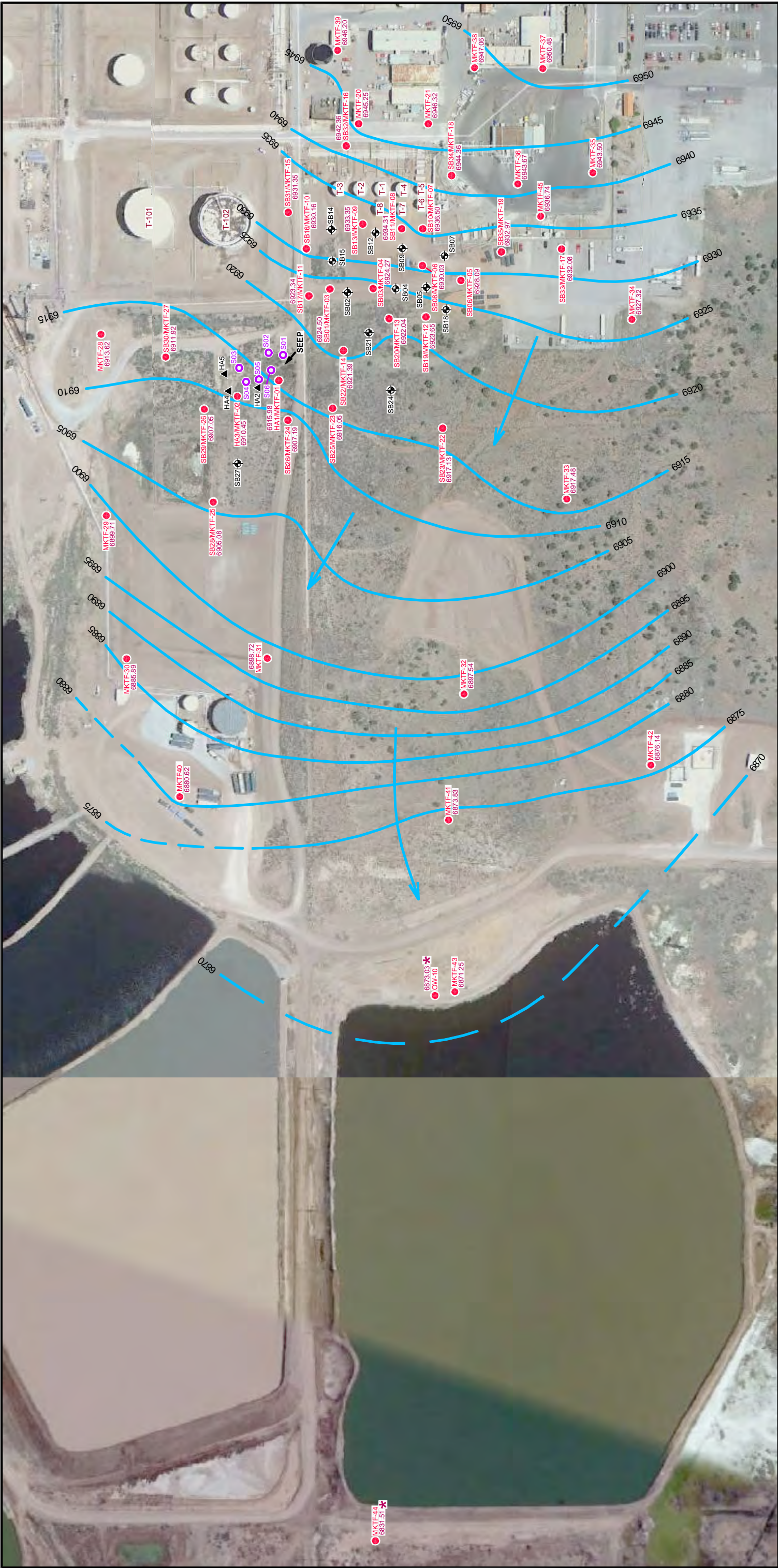
MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 12/09/18 | FILE: Mathon-dB206


FIGURE 1
SITE LOCATION MAP
GALLUP REFINERY



8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759




Aerial Map Source: Google Map, 01/05/2014.



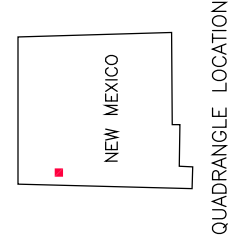
MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 1/28/19 | FILE: Mathon-dB208

FIGURE 3
POTENTIOMETRIC MAP
3RD QUARTER 2017



8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

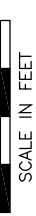


- SB01

TEMPORARY WELL LOCATION
(PLUGGED)
- HA1


HAND AUGER LOCATION
(PLUGGED)
- S01

TEMPORARY SUMP
- MONITORING WELL LOCATION
(PERMANENT WELL)
- POTENTIOMETRIC CONTOUR (FT)
(5 FT INTERVAL)
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC SURFACE MEASURED
RELATIVE TO MEAN SEA LEVEL (3RD QUARTER 2017)
- MEASUREMENT NOT USED IN CONTOURING






Aerial Map Source: Google Map, 01/05/2014.



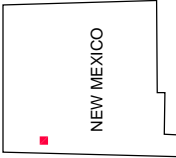
MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 1/28/19 | FILE: Mathon-dB209

FIGURE 4
BENZENE
CONCENTRATION MAP
3RD QUARTER 2017






8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



QUADRANGLE LOCATION


LEGEND

-  SB01
- TEMPORARY WELL LOCATION
(PLUGGED)
-  S01
- TEMPORARY SUMP
- 
- MONITORING WELL LOCATION
(PERMANENT WELL)
- 3.3
- BENZENE CONCENTRATION (mg/l)
- SPH
- SCREENING LEVEL = 0.005 mg/l
- SEPARATE PHASE HYDROCARBON
ISOCONTOUR OF BENZENE
CONCENTRATION (mg/l)





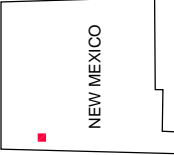
Aerial Map Source: Google Map, 01/05/2014.




MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 1/29/19 | FILE: Mathon-dB210

FIGURE 5
MTBE
CONCENTRATION MAP
3RD QUARTER 2017



NEW MEXICO




8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

- LEGEND
- SB01



TEMPORARY WELL LOCATION
(PLUGGED)

S01



MONITORING WELL LOCATION
(PERMANENT WELL)

2.3




MTBE CONCENTRATION (mg/l)

SPH



SCREENING LEVEL = 0.143 mg/l


SPH



SEPARATE PHASE HYDROCARBON
ISOCONTOUR OF MTBE
CONCENTRATION (mg/l)



Aerial Map Source: Google Map, 3/18/2016.




MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 02/19/20 | FILE: Mathon-dB246


FIGURE 6


PROPOSED SAMPLING LOCATIONS





8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759


QUADRANGLE LOCATION


- LEGEND
-  PROPOSED SOIL BORING LOCATION

 PROPOSED WELL LOCATION

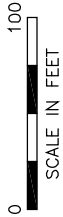
 PROPOSED SOIL BORING LOCATION (JULY 2019 WORK PLAN)

 PROPOSED WELL LOCATION (JULY 2019 WORK PLAN)

 TEMPORARY WELL LOCATION (PLUGGED)

 MONITORING WELL LOCATION (PERMANENT WELL)
- SB01

MKTF-34



Appendix A

Boring Logs

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1				--	Fill (Gravel and Silty Clay)	
3	1009			20	Fill (Gravel and Silty Clay) Similar to above, strong hydrocarbon odor, damp	
5	693			60	Fill (Gravel and Silty Clay) Similar to above	
7	1108			70	Fill (Silty Clay) Low plasticity, firm, damp, brown, gravel present, strong hydrocarbon odor	
9	901			90	Fill (Clay/Sand/Gravel) Similar to above, saturated, odor, sheen observed	
11	803			60	Clay (CH) High plasticity, stiff, damp, brown, hydrocarbon odor	
13	254			70	Clay (CH) Similar to above, very fine grain, sand in partings	
15	200			30	Clay (CH) Similar to above	
17				--	No recovery	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
112				30	Clay (CH) High plasticity, firm, damp, brown, faint odor	<p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>27'</p> <p>27.5'</p> <p>10/20 Sieve Sand Filter Pack</p> <p>Saturation 23'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				20	Clay (CH) Similar to above	
55						
22						
323				80	Clay (CH) Similar to above	
24					Sandy Clay/Clayey Sand (SC/CL) Fine grain, compact, very moist to saturated, brown, hydrocarbon present	
					Clayey Sand (SC) Similar to above, saturated	
26				90	Sandy Clay (CL) Low plasticity, firm, damp, hydrocarbon odor, greenish gray	
28					Total Depth = 27' BGL	
30						
32						
34						
36						

Appendix B

Investigation Derived Waste Management Plan

Investigation Derived Waste (IDW) Management Plan

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

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

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

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

Appendix C

Well Development and Purging Procedures

Well Development

All monitoring wells will be developed to create an effective filter pack around the well screen, correct damage to the formation caused by drilling, remove fine particles from the formation near the borehole, and assist in restoring the natural water quality of the aquifer in the vicinity of the well. Newly installed monitoring wells will not be developed for at least 48 hours after the surface pad and outer protective casing are installed. This will allow sufficient time for the well materials to cure before the development procedures are initiated. A new monitoring well will be developed until the column of water in the well is free of visible sediment, and the pH, temperature, turbidity, and specific conductivity have stabilized. In most cases, the above requirements can be satisfied. However, in some cases, the pH, temperature, and specific conductivity may stabilize but the water remains turbid. In this case, continuous flushing may be necessary to complete the well development. If the well is pumped dry, the water level will be allowed to sufficiently recover before the next development period is initiated. The common methods used for developing wells include:

- (1) pumping and over-pumping;
- (2) backwashing;
- (3) surging (with a surge block);
- (4) bailing;
- (5) jetting; and
- (6) airlift pumping.

These development procedures will be used, either individually or in combination, to achieve the most effective well development. However, the most favorable well development methods include pumping, over-pumping, bailing, surging, or a combination of these methods. Well development methods and equipment that alter the chemical composition of the groundwater will not be used.

Development methods that involve adding water or other fluids to the well or borehole, or that use air to accomplish well development will be avoided, if possible. Approval will be obtained from the NMED prior to introducing air, water, or other fluids into the well for the purpose of well development. If water is introduced to a borehole during well drilling and completion, then the same or greater volume of water will be removed from the well during development. In addition, the volume of water withdrawn from a well during development will be recorded, and best efforts will be used to avoid pumping wells dry during development activities.

Well Purging

All zones in each monitoring well will be purged by removing groundwater prior to sampling and in order to ensure that formation water is being sampled. Purge volumes will be determined by monitoring, at a minimum, groundwater pH, specific conductance, dissolved oxygen concentrations, turbidity, redox potential, and temperature during purging of volumes and at measurement intervals of not less than $\frac{1}{4}$ the pre-purge well volume. The groundwater quality parameters and fluid levels will be measured using a YSI Professional Plus Multiparameter Meter, YSI Water Quality Sonde, Hach Portable Turbidimeter, and a Geotech Interface Meter. The volume of groundwater purged, the instruments used, and the readings obtained at each interval will be recorded on the field monitoring log. In general, water samples may be obtained from the well after the measured parameters of the purge water have stabilized to within ten percent for three consecutive measurements. Well purging

may also be conducted in accordance with the NMED's Position Paper "Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring" (October 30, 2001). If necessary, a written request for a variance from the described methods of well purging for individual wells may be submitted to NMED no later than 90 days prior to scheduled sampling activities.

Appendix D
C-141 Form – Gasoline Release

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

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

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

Nature and Volume of Release

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

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

Cause of Release

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

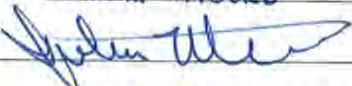
State of New Mexico
Oil Conservation Division

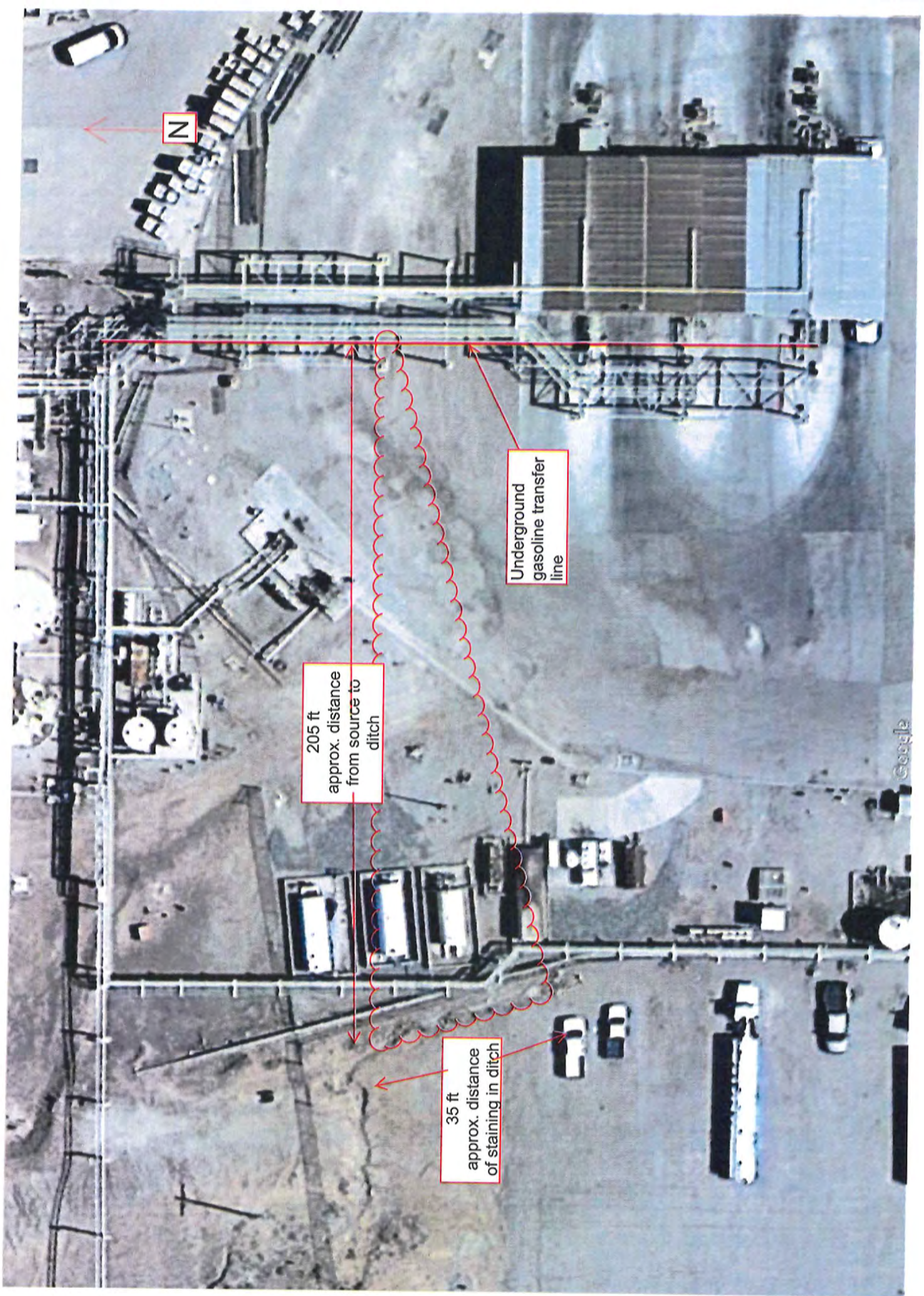
Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>John Moore</u>	Title: <u>ENVIRONMENTAL SUPERINTENDENT</u>
Signature: 	Date: <u>11-7-19</u>
email: <u>jmoore5@marathonpetroleum.com</u>	Telephone: <u>505-863-3205</u>
<u>OCD Only</u>	
Received by: _____	Date: _____





December 10, 2019

Mr. Dave Cobrain, Program Manager
Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, NM 87505-6303

**RE: Request for Extension of Time
Implementation of Area of Concern 35 Investigation
Marathon Petroleum Company LP, Gallup Refinery
(dba Western Refining Southwest, Inc.)
EPA ID# NMD000333211**

Dear Mr. Cobrain:

Marathon Petroleum Company LP (dba Western Refining Southwest, Inc.) Gallup Refinery is submitting a request for extension of time regarding the currently planned investigation at Area of Concern (AOC) 35. As recently reported to the New Mexico Environment Department (NMED) and the New Mexico Oil Conservation Division (NMOCD), a release of product (gasoline) was discovered near the truck loading rack, which is part of AOC 35.

The Investigation Work Plan for AOC 35 was approved with modifications on September 12, 2019 and was scheduled to be implemented in conjunction with the recent sampling conducted at the Sanitary Lagoon and Solid Waste Management Unit No. 13; however, as the product release was discovered within AOC 35 the decision was made to temporarily postpone the investigation. We believe the previously approved Investigation Work Plan should be modified to account for the new release. We are currently routinely gauging the thickness of product in existing monitoring wells in and around AOC 35 to help determine the likely migration pathways from the source (leaking underground product line).

With NMED's concurrence, we propose to submit a revised Investigation Work Plan for AOC 35 by no later than February 28, 2020. We believe this should provide sufficient time to collect data on likely migration pathways of product, as well as, information from the Refinery Maintenance group that is making repairs to the leaking pipeline. With this information we anticipate expanding the original scope of work to investigate near the source of the new release and down-gradient to define the extent of the product.

If there are any questions, please call Brian Moore at 505-726-9745.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the

information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Marathon Petroleum Company LP, Gallup Refinery



Robert S. Hanks

Refinery General Manager

cc K. Van Horn NMED
 C. Chavez NMOCD
 B. Moore Marathon Gallup Refiner



MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 05/31/19 | FILE: Mathon-dA149

FIGURE 5
SANITARY LAGOON
PROPOSED SOIL SAMPLE LOCATIONS
BENEATH PIPELINE

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



0 100
SCALE IN FEET

LEGEND

- ESTIMATED LOCATION OF THE SANITARY PIPELINE
- MKTF-14 EXISTING MONITOR WELL LOCATION AND IDENTIFICATION NUMBER
- ESTIMATED LOCATION OF TRENCHES



Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

CERTIFIED MAIL - RETURN RECEIPT REQUESTED



James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

September 12, 2019

John Moore
Environmental Superintendent
Western Refining Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

**RE: APPROVAL WITH MODIFICATIONS
[REVISED] INVESTIGATION WORK PLAN AREA OF CONCERN 35
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID# NMD000333211
HWB-WRG-18-010**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed the *[Revised] Investigation Work Plan Area of Concern 35* (Work Plan), dated July 2019, submitted on behalf of Marathon Petroleum Company dba Western Refining Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Approval with Modifications. The Permittee must address the following comments.

Comment 1

In the responses to NMED's *Disapproval* Comments 1 and 3, the Permittee states, "[n]one required." Although no revision is required to the Work Plan to address these comments, these comments provide NMED's direction and still require the Permittee's compliance and response. The Permittee's response does not clearly express concurrence, but NMED assumes as such. The same comments were previously provided in the NMED's correspondence letters (e.g., Comment 1 in the NMED's *Approval with Modifications Investigation Report OW-14 Source Area*, dated August 19, 2019). Respond to future comments where there is concurrence with an acknowledgement.

Comment 2

In the response to NMED's *Disapproval* Comment 2, the Permittee states, "[t]he discussion in Section 2.1 has been revised to note the lack of documentation on final cleanup actions." Section 2.1 (Main Truck Loading Rack Area) states, "[n]o final documentation of the spill response for the December 2009 release has been located to determine if the spill response was fully completed." The intent of NMED's *Disapproval* Comment 2 was not limited to this specific incident; it was intended to point out the lack of follow up regarding the historic cleanup of releases. No response required.

Comment 3

In Section 2.5 (Prior Investigations) the Permittee states, "[o]n July 8, 2013, one pint of fluorescent FWT red dye was poured into a sump/drain at the second bay from the south end at the truck loading rack. After several minutes the red dye was observed in the sewer box located on the west side of the bundle cleaning pad, confirming the flow of the drain from the truck rack to the north in the main process sewer pipeline. A second pint of the same red dye was added to the same sewer box on the west side of the bundle pad. The excavations at the hydrocarbon seep area (located west of the crude tanks) were inspected each day afterward and on the 8th day, July 16, 2018, red dye as identified in one of the excavations." There appears to be a typographical error, confirm that the dates are accurate in a response letter.

Comment 4

In the response to NMED's *Disapproval* Comment 6, the Permittee states, "[t]he water levels to which NMED refers are the water levels that exist under confined conditions at MKTF-17 and MKTF-18 and are not necessarily reflective of water levels in the upper fill materials... The anticipated well depth of 10 feet at the two new wells is based on the bottom of the fill being at 8 feet bgl in MKTF-17 and 10 feet bgl in MKTF-18..." NMED provided a comment regarding these MKTF wells in the letter dated August 23, 2019 *Second Disapproval Response to Disapproval Work Plan 2015 Annual Groundwater Report Comments*, Comment 10. The comment stated, "[t]he Permittee suggests there are two separate water bearing zones within 20 feet bgs; however, it is likely that the two-separate water bearing zones are hydraulically connected. If the Permittee installs wells that are screened to only ten feet bgs as proposed, the wells may not produce sufficient groundwater. Propose to install replacement wells with comparable depths to the original wells with longer screens that intersect the water table in the revised Work Plan." The saturation observed in the upper fill likely originates from the sandy clay/clayey sand layer beneath the clay layer. According to the boring logs in Appendix A, the clay layer is moist throughout the soil column, suggesting that the layer may not be completely confining but permeable or leaky. Therefore, if the Permittee installs wells that are screened to ten feet bgs as proposed, the wells may not produce sufficient groundwater. Install replacement wells with comparable depths to the original wells, with longer screens that intersect the water table.

Comment 5

In the response to NMED's *Disapproval* Comment 6, the Permittee states, "[t]he text in Section 4.1 is revised to clarify these wells will likely be installed under the Investigation Work Plan for the Up-Gradient MKTF wells, as that work plan has already been approved and field work is scheduled to start on July 30, 2019." NMED approved the *Investigation Work Plan Up-Gradient MKTF Wells* in a letter dated March 7, 2019; however, NMED did not approve the well installation method described in the response letter. Comment 2 in the *Approval with Modifications* states, "Section 4.2.1, Drilling Activities, page 4-3, states that slotted (0.01 inch) PVC well screen will be placed in the borings and will extend for 10 feet, unless a longer screen length is necessary to screen across all saturated and likely transmissive zones while also extending above the static water level in the well. In order to accommodate the decreasing trend of groundwater elevations in recent years, a longer screened interval (e.g., 20-foot screen) may be more appropriate for the proposed wells." Section 4.2.1 reads, "[a]ppropriate actions (e.g., installation of protective surface casing or relocation of borings to a less threatening location) will be taken to minimize any negative impacts from investigative borings. Slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet." The Permittee implied that ten feet or longer screens would be installed to intersect the water table but did not indicate that the total depth of the wells would be ten feet below ground surface (bgs) or less. The Permittee's statement was unclear and NMED did not intend to approve the work plan without modification, if the total depth of these wells were proposed to be less than ten feet bgs. The Permittee must not reference this approval to justify the proposed well installation method. Additionally, if these wells were already installed to the depths that only screen across the upper fill and did not produce sufficient water, these wells must be replaced. If these wells have already been installed, provide a status for whether the wells produce sufficient water in the response letter.

Comment 6

In the response to NMED's *Disapproval* Comment 10, the Permittee states, "[n]itrate and nitrite has been added to the listed analyses in Section 4.6." Refer to Comment 9 in the NMED's *Approval with Modifications Response to Disapproval Annual Groundwater Monitoring Report: Gallup Refinery – 2017*, dated August 23, 2019. The Permittee must conduct separate nitrate and nitrite analyses.

Comment 7

In the response to NMED's *Disapproval* Comment 12, the Permittee states, "[a]s noted above, we have added two an [sic] additional boring[s] along the pipeline rack to the south of MKTF-16." Only one proposed soil boring location along the pipeline rack to the south of MKTF-16 is shown on Figure 6 (Proposed Sampling Locations). Provide a revised figure that shows the other location along the pipeline rack to the south of MKTF-16.

Comment 8

In the Executive Summary the Permittee states, “[t]his investigation will focus on identification of potential source areas that have in the past or are continuing to contribute to the observed impacts to groundwater. Twenty-five soil borings are proposed to evaluate the presence of source areas.” In the Introduction the Permittee states, “[t]he purposes of this investigation are to: determine the source of the elevated concentrations of petroleum hydrocarbon constituents (e.g., BTEX) and MTBE detected in groundwater samples collected from the MKTF wells in the area of AOC 35; and evaluate the groundwater quality in the shallow perched zone that has been observed in MKTF-7, - 17 and -18 at the base of the surficial fill material.” The Permittee is also investigating potential migration pathways and will begin to define the extent of contaminant migration from the source areas.

Comment 9

In Section 4.1 (AOC 35 Investigation) the Permittee states, “[t]wo new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18 ... Additional monitoring wells were requested at these locations in comments received from NMED on the 2015 Annual Groundwater Monitoring Report. A separate work plan (Investigation Work Plan Up-Gradient MKTF Wells dated January 2019) also contains provisions for the installation of shallow wells at the same locations. As the Investigation Work Plan Up-Gradient MKTF Wells was approved with modifications on March 7, 2019, it likely these two wells will be installed under the Up-Gradient MKTF Wells Work Plan.” Ensure that the information regarding the wells is reported in both reports for consistency. At some point it may make sense to integrate the groundwater information gathered through individual investigations into an all-inclusive report regarding groundwater conditions at the facility.

Comment 10

In Section 4.2.1 (Drilling Activities) the Permittee states, “[d]ue to physical access limitations (e.g., near the tank water draws) and high traffic concerns in other locations, the soil borings will be completed using hand augers or a geo-probe using a macrocore for shallow intervals, converting to dual tube for deeper intervals. Both soil and groundwater samples can be collected using the dual tube technology.” During a meeting on August 14, 2019 it was discussed that the drilling planned in high traffic areas may be able to be completed during the Facility’s turnaround period. If other methods of drilling and sampling are used because access to the area is not an issue, discuss any changes in the investigation report.

Mr. Moore
September 12, 2019
Page 5

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

If you have any questions regarding this letter, please contact Kristen Van Horn at (505) 476-6046.

Sincerely,



John E. Kielling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
K. Van Horn, NMED HWB
M. Suzuki, NMED HWB
C. Chavez, EMNRD OCD
L. King, EPA Region 6 (6LCRRC)
B. Moore, Marathon

File: WRG 2019 and Reading
HWB-WRG-18-010



**Marathon
Petroleum Company LP**

July 26, 2019

Mr. John E. Kieling, Chief
New Mexico Environmental Department
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, NM 87505-6303

**RE: Response to Disapproval
Investigation Work Plan Area of Concern 35
Marathon Petroleum Company LP, Gallup Refinery
(dba Western Refining Southwest, Inc.)
EPA ID# NMD000333211
HWB-WRG-18-010**

Dear Mr. Kieling:

Marathon Petroleum Company LP (dba Western Refining Southwest, Inc.) Gallup Refinery is submitting the enclosed responses to your comments dated January 31, 2019 on the referenced Investigation Work Plan. The Investigation Work Plan has been revised per your comments and enclosed for your review. If there are any questions, please call Brian Moore at 505-726-9745.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
Marathon Petroleum Company LP, Gallup Refinery

A handwritten signature in black ink that reads 'Robert S. Hanks'.

Robert S. Hanks
Refinery General Manager

Enclosure

cc K. Van Horn NMED
C. Chavez NMOCD
B. Moore Marathon Gallup Refinery

92 Giant Crossing Road
Jamestown, NM 87347

RESPONSE TO COMMENTS

January 31, 2019 Comments on AOC 35 Investigation Work Plan (August 2018)

NMED Comment 1:

The Permittee is careful to point out several times in the Work Plan that no waste material was historically handled at these units. The facility is not permitted to handle waste materials. These units and others listed in the Permittee's RCRA Permit under corrective action are listed because there is a history of handling material that may contain listed hazardous waste or hazardous constituents which have or may have, during the unit's use, been released to the environment.

MPC Response 1:

None required.

NMED Comment 2:

In the Background, Section 2.1 (Main Truck Loading Rack Area), the Permittee lists two recent releases and states, "[t]here have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies." There is a historical lack of follow up regarding cleanup of releases; therefore, it is not always clear if or when releases were fully addressed. For instance, the release notification form for the December 23, 2009 release of ultra-low sulfur diesel from the leaking underground pipe at the west end of the main loading rack indicated that the release affected an adjacent field, stating, "[i]n further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed offsite in accordance with applicable regulations." There was no report that provided information on soil disposal or confirmation sampling related to this release. Revise this section to more accurately describe the cleanup or lack thereof of releases.

MPC Response 2:

The discussion in Section 2.1 has been revised to note the lack of documentation on final cleanup actions.

NMED Comment 3:

Section 2.3 (Additive Tank Farm Loading Rack) states that methyl tert butyl ether (MTBE) is not and has not been stored in these tanks. Based on Figure 5 (MTBE Concentration Map March 2015) the greatest concentration of MTBE in groundwater appears to be near the Additive Tank Farm/Loading Rack and the Main Truck Loading Rack. Since MTBE was added to fuel as an anti-knocking agent, it is likely that releases occurred at the Main Truck Loading Rack during fuel transfer. Units where fuel loading or unloading occurs can be a source of contaminants over time because of small releases or steady, but small leakage that can contaminate soils. Releases are not limited to tank leaks that may

contribute to releases to the environment. No revision necessary; however, when planning investigations, the Permittee must take into account that tanks are not the only potential contaminant source.

MPC Response 3:

None required.

NMED Comment 4:

The Permittee must revise the background section of the Work Plan to address the following:

- a) The Permittee must add a discussion regarding the state of the concrete pads at the units. Provide photographs of the concrete pads, as appropriate.
- b) The background section must include information regarding the results of the dye tracer study conducted as part of the Hydrocarbon Seep Interim Measures that included the truck rack.
- c) Additionally, the background section must reference information regarding the Sanitary Lagoon since the Permittee references this Work Plan in the Sanitary Lagoon Investigation Work Plan, dated October 2018 and states that the "Area A" referenced therein will be investigated as part of this Work Plan.
- d) The Permittee proposed to install three groundwater monitoring wells in the *Investigation Work Plan Up-gradient MKTF Wells*, dated August 2018. One of the proposed wells is located at the southern boundary of AOC 35. In the revised Work Plan, reference the work plan to indicate that a related groundwater investigation is concurrently proposed in the vicinity of AOC 35.

MPC Response 4:

Additional discussion has been added in the Background Section (page 2-2) to describe the concrete pads and a new Appendix D has been added for photos, results of the dye tracer study (pages 2-4 and 2-5) are included, and references to the Sanitary Lagoon Investigation Work Plan (page 2-5) and the Up-gradient MKTF Wells Investigation Work Plan (page 2-5) are included.

NMED Comment 5:

In Section 4.1 (AOC 35 Investigation) the Permittee states, "[t]wo new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18." The Permittee includes a similar proposal to install additional wells near MKTF-17 and MKTF-18 in the *Work Plan 2015 Annual Groundwater Report Comments*, dated October 2018; however, the proposed locations are different. Clarify if the

Permittee plans to install two sets of additional borings near the MKTF-17 and MKTF-18 wells or if one set can satisfy the requirements included in NMED's comments regarding the 2015 Groundwater Monitoring Report and for this Work Plan.

MPC Response 5:

There is only one set of wells proposed to address NMED's comments regarding both the 2015 Groundwater Monitoring Report and the AOC 35 Investigation Work Plan ("this Work Plan"). The objective is to drill shallow "twin" wells near existing wells MKTF-17 and MKTF-18, and the exact final location will not be known until the area is cleared of underground utilities. Additional text is added to Section 4.1 to address this question. It is also noted that the original Figure 6 included in the work plan showed some of the wells, including MKTF-17 and MKTF-18, shifted approximately 20 to 30 feet west of their actual location. Figures 2 and 6 are corrected to accurately show the locations of existing MKTF wells in the area of AOC 35.

NMED Comment 6:

In Section 4.1 (AOC 35 Investigation) the Permittee states, "[e]ach well will be screened in the upper-most saturated interval, which based on the borings logs from MKTF-17 and MKTF-18 should be encountered within 8 feet and 10 feet below ground level (bgl), respectively." Section 4.2.1 (Drilling Activities) also states that slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet. The 2017 depth-to-water (DTW) measurements indicate that the groundwater depths are deeper than nine feet below ground surface (bgs) in well MKTF-17. The well placed next to MKTF-17 must be installed deeper than ten feet bgs. Revise the Work Plan accordingly. In addition, all proposed wells must be installed to accommodate the decreasing trend in groundwater elevations in recent years (e.g., deeper total depths, longer screened intervals).

MPC Response 6:

The same comment was received from NMED on January 28, 2019 (Comment No. 9) regarding the Investigation Work Plan prepared to address comments on the 2015 Annual Groundwater Monitoring Report. The water levels to which NMED refers are the water levels that exist under confined conditions at MKTF-17 and MKTF-18 and are not necessarily reflective of water levels in the upper fill materials. The two initial wells were drilled through the fill materials and completed in the underlying confined interval with screens set at depths to prevent cross contamination between the fill materials and the silty clayey gravel that occurs at 22 feet bgl in MKTF-17 and the sandy clay/clayey sand that occurs at 23 feet in MKTF-18. The "anticipated" well depth of 10 feet at the two new wells is based on the bottom of the fill being at 8 feet bgl in MKTF-17 and 10 feet bgl in MKTF-18 and is not affected by fluctuating water levels in the lower confined unit (12 feet of confining clay in MKTF-17 and 13 feet in MKTF-18). The screen will be set to encounter the fill down to the top of the underlying clay and upward across and above the water table, while allowing some blank casing to complete the well and isolate from the land surface. The text in Section 4.1 is revised to clarify these wells will likely be installed

under the Investigation Work Plan for the Up-Gradient MKTF wells, as that work plan has already been approved and field work is scheduled to start on July 30, 2019.

NMED Comment 7:

In Section 4.2 (Soil Sample Field Screening and Logging) the Permittee states, "[d]iscrete soil samples will be retained for laboratory analyses from within the following intervals: 0.0-0.5 feet (at soil borings with evidence of impacts near the land surface);" The Permittee must collect surface soil samples even if there is no evidence of impacts. If the surface is covered with gravel, the Permittee must move the gravel and collect a sample from the surface directly below the gravel and note that gravel was removed to collect a surface soil sample.

MPC Response 7:

The text in Section 4.2 is revised to include collection of surface soil samples (0-0.5') for chemical analyses at each soil boring. If gravel or other materials, (e.g., asphalt or concrete) are present, then the materials will be removed before sample collection and this will be documented in the report.

NMED Comment 8:

The Permittee discusses drilling methods in Section 4 (Scope of Services), but does not include methods and procedures used for sample collection. For example, describe how soil samples obtained for laboratory analysis will be collected from the hand auger and from the macrocore or dual tube used for geoprobe sampling. Include this information in the revised Work Plan.

MPC Response 8:

Sample collection is discussed in Section 4.3.1, as part of the sampling handling procedures. The discussion has been revised to specifically address how samples are collected from the hand auger or other sample retrieval devices (e.g., macrocore, dual tube, or split-spoon samplers).

NMED Comment 9:

In Section 4.3 (Groundwater Sample Collection) the Permittee states, "[g]roundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposable hailers... Sample collection methods will be documented in the field monitoring reports." Prior to collection of groundwater samples for laboratory analyses, the Permittee must measure DTW and the total depths of each well, and collect field groundwater quality data (e.g., dissolved oxygen, pH, temperature, conductivity, redox potential, turbidity) during well purging. Include descriptions of the field procedures in the revised Work Plan.

MPC Response 9:

Additional text has been added to Section 4.3 and a new Appendix C added to provide more specific details on groundwater sample collection related activities.

NMED Comment 10:

In Section 4.6 (Chemical Analyses), the Permittee states, "[g]roundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride)." The groundwater samples must also be analyzed for nitrate and nitrite because of potential wastewater discharges at the site. Include the nitrate and nitrite analyses for groundwater samples in the revised Work Plan.

MPC Response 10:

Nitrate and nitrite has been added to the listed analyses in Section 4.6.

NMED Comment 11:

So many of the MKTF wells contain separate phase hydrocarbons (SPH) that the representation of benzene and MTBE concentrations in Figure 4 (Benzene Concentration Map March 2015) and Figure 5 (MTBE Concentration Map March, 2015) may not be accurate. The Permittee recently indicated the SPH in wells has significantly decreased over time. Present concentration maps with updated SPH thickness and groundwater concentrations of benzene and MTBE in the revised Report for comparison.

MPC Response 11:

Updated maps showing SPH thickness and benzene and MTBE concentrations will be included in the Investigation Report.

NMED Comment 12:

In Figure 6 (Proposed Sampling Locations), many of the proposed soil boring locations are placed along an oily water drain line from the laboratory, what appears to be a drain line along the marketing tank farm tanks, and the sanitary sewer line. The Permittee must move some of the proposed borings to locations where transfers of materials occur. While leaks from the sewer system are a concern, releases from the units can occur from other points as well. For instance, at the Retail Tank Farm, the pipe rack to the east of the tanks could be a potential contaminant source, boring SB32/MKTF-16 exhibits a concentration of 19 mg/L of benzene, which appears to be one of the highest concentrations of benzene in groundwater and is located to the east of those racks. Revise the Work Plan to add or adjust proposed boring locations to account for sources other than the sewer system.

MPC Response 12:

Additional soil borings have been added in locations where "transfer of materials occur." The new locations are shown on Figure 6 and discussed in Section 4.1. These include an additional

boring on the southwest corner of the truck loading rack, and additional boring in the center of the area where the additive tanks are located, an additional boring west of the Crude and Ethanol Unloading Facility and two borings along the overhead piperack that goes to the main loading racks. We would note that many of the soil borings that NMED describes as being placed along an oily water drain line from the laboratory are actually also located adjacent to sumps at the truck loading rack. These sumps are considered one of the most likely locations for releases in this area and in fact dye tests have indicated a release at either one of these sumps or the drain line that connects the sumps. Also, NMED refers to MKTF-16 as having high concentrations of benzene and this is correct. We would note that MKTF-16 is actually located in the immediate vicinity of where the sewer pipeline was found to be leaking. As noted above, we have added two an additional boring along the pipeline rack to the south of MKTF-16.

Investigation Work Plan Area of Concern 35



**Marathon
Petroleum Company LP**

Gallup Refinery
Marathon Petroleum Company
Gallup, New Mexico

EPA ID# NMD000333211

AUGUST 2018

(Revised July 2019)

Scott Crouch
Senior Geologist



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Appendix B	Investigation Derived Waste Management Plan
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List of Acronyms

benzene, toluene, ethylbenzene, and xylene (BTEX)
Code of Federal Regulations (CFR)
Contract Laboratory Program (CLP)
data quality objective (DQO)
diesel range organics (DRO)
dilution attenuation factor (DAF)
Environmental Protection Agency (EPA)
investigation derived waste (IDW)
Maximum Contaminant Level (MCL)
mean sea level (msl)
monitoring well (MW)
motor oil range organics (MRO)
methyl tert butyl ether (MTBE)
New Mexico Administrative Code (NMAC)
New Mexico Environment Department (NMED)
New Mexico Oil Conservation Division (NMOCD)
photoionization detector (PID)
polynuclear aromatic hydrocarbon (PAH)
polyvinyl chloride (PVC)
quality assurance/quality control (QA/QC)
Resource Conservation and Recovery Act (RCRA)
separate-phase hydrocarbon (SPH)
semi-volatile organic compound (SVOC)
Solid Waste Management Unit (SWMU)
total petroleum hydrocarbon (TPH)
toxicity characteristic leaching procedure (TCLP)
volatile organic compound (VOC)

Executive Summary

The Gallup Refinery, which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 – 7, 912, 913, 1001, and 1002).

Groundwater samples collected from wells near the retail tank farm [also known as the marketing tank farm (MKTF)] (e.g., MKTF-07, -08, -09, -10, -16, and -18) have shown impacts from petroleum hydrocarbons, to include such constituents as benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert butyl ether (MTBE) above screening levels. Similar impacts also extent to the south near the main truck loading racks as shown in groundwater samples collected from this area. This investigation will focus on identification of potential source areas that have in the past or are continuing to contribute to the observed impacts to groundwater. Twenty-five soil borings are proposed to evaluate the presence of source areas. Soil samples will be collected from each boring and a groundwater sample will be collected if groundwater is encountered. In addition, two shallow permanent monitoring wells will be installed to evaluate conditions in the perched groundwater zone previously identified on the western side of the main truck loading rack. The soil and groundwater samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), Skinner List metals, iron, and manganese. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Section 1

Introduction

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

The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck. Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

This investigation work plan addresses AOC 35, which includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm loading rack, and the retail tank farm (tanks 1 – 7, 912, 913, 1001, and 1002) (Figure 2). The purposes of this investigation are to:

- determine the source of the elevated concentrations of petroleum hydrocarbon constituents (e.g., BTEX) and MTBE detected in groundwater samples collected from the MKTF wells in the area of AOC 35; and
- evaluate the groundwater quality in the shallow perched zone that has been observed in MKTF-7, -17 and -18 at the base of the surficial fill material.

The investigation activities will be conducted in accordance with Section IV.H.5 of the Post-Closure Care Permit.

Section 2

Background

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

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

2.1 Main Truck Loading Rack Area

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

There have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies. On December 4, 2007, approximately 6,800 gallons of gasoline was spilled when a truck driver erroneously opened a valve on a tanker truck (Release Notification dated Dec. 7, 2007) and on December 23, 2009, approximately 44 barrels (1,848 gallons) of diesel fuel was spilled from a leaking underground pipeline at the west end of the loading rack (Release Notification dated Dec. 29, 2009). No final documentation of the spill response for the December 2009 release has been located to determine if the spill response was fully completed.

As part of the Interim Measures to address the Hydrocarbon Seep Area, which is located to the northwest of the main loading racks, new monitoring wells were installed near the loading racks. These wells are identified as the MKTF wells. In addition, during the field reconnaissance process to locate potential drilling locations near the main loading racks, an unidentified well was located to the west of the main loading racks and it was subsequently numbered as MKTF-45 (Figure 3). The well is measured as being 30.24 feet deep and has contained separate-phase hydrocarbon (SPH) since it

was first gauged in 2014. It appears the well was installed to help address historic releases near the main loading racks; however, no documentation of this has been found in site records despite repeated attempts to locate any information on the well. Well MKTF-36 was installed immediately down-gradient of the loading racks in November 2014 and SPH was identified while drilling the boring. Fluid level measurements for wells near AOC 35 are provided in Table 1. Boring logs for the nearby wells are provided in Appendix A. Chemical analyses of groundwater samples collected in the area of AOC 35 are summarized in Table 2. Figures 4 and 5 show the distribution of benzene and MTBE in groundwater, which appear to have a source in the vicinity of the main loading racks.

Underground piping near the main loading racks includes a sanitary sewer drain line running east to west to the north of the loading rack (Figure 6). In addition, there are oily water drain lines (process sewer) that run from the lab building to the loading rack and then the line continues to the north after picking up discharge from sumps located at the loading rack. The sumps collect small spills that may occur on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses. The sump is no longer use to collect fluids from loading hoses and would only serve as an emergency drain in the case of a release during loading operations. The concrete pads are cracked, particularly in the areas near the sumps. Photographs are provided in Appendix D.

2.2 Crude Slop and Ethanol Unloading Facility

This facility is located approximately 80 feet northwest of the main loading racks and is used to unload recovered oil and transmix that may be reclaimed from various locations within the refinery. The area is also used to unload ethanol that is delivered to the refinery via truck. It was put into service sometime before the 1990s and is still in operation. The unloading area is approximately 15 feet by 40 feet and includes overhead pipelines and associated connections to support unloading operations. The concrete pad drains to a sump, which is connected to the process sewer (Figure 6). This concrete pad, which appears to be in good condition, was rebuilt approximately 10 years ago and photos are included in Appendix D

2.3 Additive Tank Farm Loading Rack

Petroleum product additives are stored in aboveground tanks at this location (Figure 2). These additive tanks are all small aboveground tanks located approximately 150 feet west of the main loading rack. The additive tanks were installed prior to 1997, but the exact date is uncertain. No wastes are managed and only products (i.e., fuel additives) are managed in this area. Methyl tert butyl ether (MTBE) is not and has not been stored in these tanks.

2.4 Retail Tank Farm

The retail tank farm is located approximately 150 feet northwest of the main loading racks and includes Tanks 1 – 7, 912, 913, 1001, and 1002 (Figure 2). Retail petroleum products (e.g., gasoline, diesel, and biodiesel) are stored in these tanks and MTBE was stored in Tank 6 prior to discontinuation of its use in 2006. Ethanol has been stored in Tank 6 since the use of MTBE was discontinued. The first tanks were constructed in 1963 and have had routine inspections both external and internal since construction. Details of the tanks size, materials, construction dates, etc. are provided in Table 3.

The fuels are delivered to the marketing tanks via pipelines that run primarily aboveground. Ethanol is unloaded at the adjacent ethanol unloading facility and transferred to Tanks 5 and 6 via aboveground lines. The fuels and additives (i.e., ethanol) are subsequently transferred to the main loading racks via aboveground pipelines where they are loaded into tanker trucks.

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

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

2.5 Prior Investigations

The earliest investigation in the area is referenced in *Comprehensive Facility Investigation Work Plan* that was prepared for the NMOCD in June 1997 (Giant Refining Company, 1997). The work plan references “groundwater impact area #4” as being in the vicinity of the truck loading rack. It is stated that the source of the impact is a spill of hydrocarbon that occurred in the early 1980s. The area is further described as having residual hydrocarbons present at low levels and declining through natural biodegradation. No quantitative information could be located to substantiate the description of the conditions provided in the 1997 Work Plan.

As discussed above in Section 2.1, groundwater conditions in the vicinity of AOC 35 were recently investigated as part of the interim measures effort for the Hydrocarbon Seep Area (DiSorbo, 2016). Figure 6 shows the location of numerous monitoring wells (MKTF designation) in and around AOC 35. These wells are primarily screened across the contact of the Chinle Group (Petrified Forest Formation) that forms an aquitard and the overlying alluvial/fluvial deposits (Quaternary Alluvium). Groundwater samples collected from the existing MKTF wells have shown the presence of petroleum hydrocarbons, including constituents such as BTEX and related constituents (e.g., MTBE) at concentrations above screening levels. These analyses are summarized in Table 2. The distribution of these constituents as shown on Figures 3 and 4 indicates a source of groundwater contamination from within AOC 35.

The process sewer drain lines that are present in the area were also evaluated in the past to determine if they could be leaking. On July 8, 2013, one pint of fluorescent FWT red dye was poured into a sump/drain at the second bay from the south end at the truck loading rack. After several minutes the red dye was observed in the sewer box located on the west side of the bundle cleaning pad, confirming the flow of the drain from the truck rack to the north in the main process sewer pipeline. A second pint of the same red dye was added to the same sewer box on the west side of the bundle pad. The excavations at the hydrocarbon seep area (located west of the crude tanks) were inspected each day afterward and on the 8th day, July 16, 2013, red dye was identified in one of the excavations. The dye was not initially identified in the soil borings/temporary wells located south of the hydrocarbon seep and west of the marketing tanks, but only in the area where the seep was identified. During a later fluid gauging event on August 14th, dye was observed in SB-1 and SB-16. The presence of dye in groundwater in the area of the seep was interpreted as indicating a likely release from the sewer system and a possible preferential migration pathway to this area.

Two additional dye tests were conducted in the process sewer system with one pint of a yellow/green dye (Spectroline Oil-Glo 44G Fluorescent yellow/green) introduced into the sewer at the Crude Slop and Ethanol Unloading area (a short distance northwest of the main truck loading racks) on September 23, 2013 and one pint of a red dye (FWT red dye) introduced at the lab sinks on September 24, 2013. On September 25, 2013, green dye was detected in sump 1 at the hydrocarbon seep. A subsequent fluid level gauging event was conducted at the MKTF monitoring wells on September 26, 2013. The red dye was identified in five of the temporary wells [SB01 (MKTF-03), SB02, SB16 (MKTF-10), SB17 (MKTF-11), and SB22 (MKTF-14)], all of which are located just south of the road that runs east-west along the north side of the marketing tanks. The

green/yellow dye appeared to be present in nine wells [SB04, SB05, SB06 (MKTF-05), SB08 (MKTF-06), SB10 (MKTF-07), SB11 (MKTF-08), SB19 (MKTF-12), SB20 (MKTF-13), and SB21], which are all located further south, closer to the Crude Slop and Ethanol Unloading area. Although the dye tests were not conclusive, the separate patterns of the two dyes suggest the possibility of two separate release points from the sewer line.

The investigation being conducted under this Work Plan is referenced in the Investigation Work Plan prepared for the Sanitary Lagoon (DiSorbo 2019a). The sanitary sewer line that discharges into the Sanitary Lagoon crosses through AOC 35 and a number of soil borings are located specifically along the sanitary sewer to assess for any potential leaks. This explained in Sections 2.1 and 4.1.

An additional monitoring well is proposed to the south of the Main Truck Loading Rack and this well will be installed pursuant to the Investigation Work Plan for the Up-Gradient MKTF Wells (DiSorbo, 2019b).

Section 3

Site Conditions

3.1 Surface Conditions

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

Regional surface water features include the refinery evaporation ponds and a number of small ponds (one cattle water pond and two small unnamed spring fed ponds). The site is located in the Puerco River Valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Puerco River. The Puerco River continues to the west to the confluence with the Little Colorado River. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Group, which is Upper Triassic, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local Formation is the Petrified Forest Formation and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 ft²/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the refinery property.

The diverse properties and complex, irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10⁻² cm/sec for gravel like sands immediately overlying the Petrified Forest Formation to 10⁻⁸ cm/sec in the clay soils located near the surface (Western, 2009). Generally, shallow groundwater at the refinery follows the upper contact of

the Petrified Forest Formation with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions (Figure 3). Fluid level measurements for wells in the area of AOC 35 are included in Table 1.

Section 4

Scope of Services

The site investigation of soil and groundwater will be conducted to identify potential sources within the area of AOC 35. Additional shallow monitoring wells will be installed to evaluate a shallow perched zone identified to the west of the main loading rack. The investigation will commence upon approval of this investigation work plan by NMED.

4.1 AOC 35 Investigation

An investigation of soil and groundwater conditions in AOC 35 is proposed to determine the source of BTEX and MTBE that has been detected in groundwater samples collected from monitoring wells in the vicinity of AOC 35. The boring locations identified on Figure 6 were selected based on field reconnaissance to identify visibly stained soils, water drains at aboveground storage tanks, and sumps and related features where fluids are transferred (e.g., loading of petroleum fuels at the loading racks). In addition, borings are located along an underground sanitary sewer pipeline and underground oily water drain lines identified from site records.

All soil borings will be extended to the depth of refusal or to the top of bedrock, whichever occurs first. If saturation is encountered, then a groundwater sample will be collected.

Two new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18. Each well will be screened in the upper-most saturated interval, which based on the borings logs from MKTF-17 and MKTF-18 should be encountered within 8 feet and 10 feet below ground level (bgl), respectively. Additional monitoring wells were requested at these locations in comments received from NMED on the 2015 Annual Groundwater Monitoring Report. A separate work plan (Investigation Work Plan Up-Gradient MKTF Wells dated January 2019) also contains provisions for the installation of shallow wells at the same locations. As the Investigation Work Plan Up-Gradient MKTF Wells was approved with modifications on March 7, 2019, it likely these two wells will be installed under the Up-Gradient MKTF Wells Work Plan. Borings logs for MKTF-17 and MKTF-18 are included in Appendix A.

4.2 Soil Sample Field Screening and Logging

Samples obtained from the soil borings will be screened in the field on 2.0-foot intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. Field screening results will be used to aid in the possible selection of soil samples for laboratory analysis. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds.

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils such as elemental sulfur or cyanide compounds. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag or a foil sealed container allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest for a minimum of 5 minutes while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag or through the foil. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each sample.

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

Discrete soil samples will be retained for laboratory analyses from within the following intervals:

- 0.0-0.5 feet (at all soil borings);
- 2.0-2.5 feet or the top of native soil if identifiable (at all soil borings);
- > 2.0 feet (from the interval in each soil boring with the greatest apparent degree of contamination, based on field observations and field screening);
- From the bottom of each borehole (all soil borings);
- From the 0.5 foot interval at the top of saturation (applicable only to borings that reach saturation); and

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- Any additional intervals as determined based on field screening results.

The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist or engineer. Detailed logs of each boring will be completed in the field by a qualified engineer or geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will be recorded on the logs.

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

- Field duplicates will be collected at a rate of 10 percent; and
- Equipment blanks will be collected from all sampling apparatus at a frequency of one per day.

4.2.1 Drilling Activities

Due to physical access limitations (e.g., near the tank water draws) and high traffic concerns in other locations, the soil borings will be completed using hand augers or a geo-probe using a macrocore for shallow intervals, converting to dual tube for deeper intervals. Both soil and groundwater samples can be collected using the dual tube technology. The two new permanent wells will be installed using hollow-stem augers. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations. Appropriate actions (e.g., installation of protective surface casing or relocation of borings to a less threatening location) will be taken to minimize any negative impacts from investigative borings. Slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet. A 10/20 sand filter pack will be installed to a minimum of one foot over the top of the well screen.

4.3 Groundwater Sample Collection

Groundwater samples shall initially be obtained from newly installed monitoring wells between ten and 30 days after completion of well development. Well development and purging prior to sample collection will be in accordance with procedures described in Appendix C. Prior to collection of

groundwater samples for laboratory analyses, the fluid levels and the total depths of each well will be measured.

Groundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposal bailers. Alternatively, well sampling may also be conducted in accordance with the NMED's Position Paper *Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (October 30, 2001, as updated). Sample collection methods will be documented in the field monitoring reports. The samples will be transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample handling and chain-of-custody procedures will be in accordance with the procedures presented below in Section 4.4.1.

Groundwater samples intended for metals analysis will be submitted to the laboratory as both total and dissolved metals samples. QA/QC samples will be collected to monitor the validity of the groundwater sample collection procedures as follows:

- Field duplicate water samples will be obtained at a frequency of ten percent, with a minimum, of one duplicate sample per sampling event;
- Equipment rinsate blanks will be obtained for chemical analysis at the rate of ten percent or a minimum of one rinsate blank per sampling day. Equipment rinsate blanks will be collected at a rate of one per sampling day if disposable sampling equipment is used. Rinsate samples will be generated by rinsing deionized water through unused or decontaminated sampling equipment. The rinsate sample will be placed in the appropriate sample container and submitted with the groundwater samples to the analytical laboratory for the appropriate analyses; and
- Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses. Trip blanks will consist of a sample of analyte-free deionized water prepared by the laboratory and placed in an appropriate sample container. The trip blank will be prepared by the analytical laboratory prior to the sampling event and will be kept with the shipping containers and placed with other water samples obtained from the site each day. Trip blanks will be analyzed at a frequency of one for each shipping container of groundwater samples to be analyzed for VOCs.

4.3.1 Sample Handling

At a minimum, the following procedures will be used at all times when collecting samples during investigation, corrective action, and monitoring activities:

1. Neoprene, nitrile, or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample;
2. All samples collected of each medium for chemical analysis will be directly transferred from the sample retrieval device (e.g., macrocore, dual tube, split-spoon, hand auger, etc.) into clean sample containers supplied by the project analytical laboratory with the exception of soil, rock, and sediment samples obtained in Encore® samplers following EPA Method 5035. Sample container volumes and preservation methods will be in accordance with the most recent standard EPA and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis; and
3. Sample labels and documentation will be completed for each sample following procedures discussed below. Immediately after the samples are collected, they will be stored in a cooler with ice or other appropriate storage method until they are delivered to the analytical laboratory. Standard chain-of-custody procedures, as described below, will be followed for all samples collected. All samples will be submitted to the laboratory soon enough to allow the laboratory to conduct the analyses within the method holding times.

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

1. Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
2. Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage. Temperature blanks will be included with each shipping container.
3. Each cooler or other container will be delivered directly to the analytical laboratory.
4. Glass bottles will be separated in the shipping container by cushioning material to prevent breakage.

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5. Plastic containers will be protected from possible puncture during shipping using cushioning material.
 6. The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory.
 7. Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol.
 8. Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.
 9. Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded on the form. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.
 10. Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.4 Collection and Management of Investigation Derived Waste

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

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated, if necessary. Calibration measurements will be recorded in the daily field logs. If field equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.5 Documentation of Field Activities

Daily field activities, including observations and field procedures, will be recorded in a field log book. Copies of the completed forms will be maintained in a bound and sequentially numbered field file for reference during field activities. Indelible ink will be used to record all field activities. Photographic

documentation of field activities will be performed, as appropriate. The daily record of field activities will include the following:

1. Site or unit designation;
2. Date;
3. Time of arrival and departure;
4. Field investigation team members including subcontractors and visitors;
5. Weather conditions;
6. Daily activities and times conducted;
7. Observations;
8. Record of samples collected with sample designations and locations specified;
9. Photographic log, as appropriate;
10. Field monitoring data, including health and safety monitoring;
11. Equipment used and calibration records, if appropriate;
12. List of additional data sheets and maps completed;
13. An inventory of the waste generated and the method of storage or disposal; and
14. Signature of personnel completing the field record.

4.6 Chemical Analyses

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

Groundwater and soil samples will be analyzed by the following methods:

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

Groundwater and soil samples will also be analyzed for the following Skinner List metals and iron and manganese using the indicated analytical methods shown. The groundwater samples collected for metals analysis will be analyzed for total and dissolved concentrations. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Inorganic Analytical Methods

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

Groundwater field measurements will be obtained for pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, turbidity, and temperature.

4.7 Data Quality Objectives

The Data Quality Objectives (DQOs) were developed to ensure that newly collected data are of sufficient quality and quantity to address the project goals, including Quality Assurance/Quality Control (QA/QC) issues (EPA, 2006). The project goals are established to determine and evaluate the presence, nature, and extent of releases of contaminants at specified SWMUs. The type of data required to meet the project goals includes chemical analyses of soil and groundwater to determine if there has been a release of contaminants.

The quantity of data is location specific and is based on the historical operations at individual locations. Method detection limits should be 20% or less of the applicable background levels, cleanup standards and screening levels.

Additional DQOs include precision, accuracy, representativeness, completeness, and comparability. Precision is a measurement of the reproducibility of measurements under a given set of circumstances and is commonly stated in terms of standard deviation or coefficient of variation (EPA, 1987). Precision is also specific to sampling activities and analytical performance. Sampling precision will be evaluated through the analyses of duplicate field samples and laboratory replicates will be utilized to assess laboratory precision.

Accuracy is a measurement in the bias of a measurement system and may include many sources of potential error, including the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analysis techniques (EPA, 1987). An evaluation of the accuracy will be performed by reviewing the results of field/trip blanks, matrix spikes, and laboratory QC samples.

Representativeness is an expression of the degree to which the data accurately and precisely represent the true environmental conditions. Sample locations and the number of samples have been selected to ensure the data is representative of actual environmental conditions. Based on SWMU specific conditions, this may include either biased (i.e., judgmental) locations/depths or unbiased (systematic grid samples) locations. In addition, sample collection techniques (e.g., field monitoring and decontamination of sampling equipment) will be utilized to help ensure representative results.

Completeness is defined as the percentage of measurements taken that are actually valid measurements, considering field QA and laboratory QC problems. EPA Contract Laboratory Program (CLP) data has been found to be 80-85% complete on a nationwide basis and this has been extrapolated to indicate that Level III, IV, and V analytical techniques will generate data that are approximately 80% complete (EPA, 1987). As an overall project goal, the completeness goal is 85%; however, some samples may be critical based on location or field screening results and thus a sample-by-sample evaluation will be performed to determine if the completeness goals have been obtained.

Comparability is a qualitative parameter, which expresses the confidence with which one data set can be compared to another. Industry standard sample collection techniques and routine EPA

analytical methods will be utilized to help ensure data are comparable to historical and future data. Analytical results will be reported in appropriate units for comparison to historical data and cleanup levels.

Section 5

References

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Tables

Table 1 Fluid Levels

Table 2 Groundwater Analytical Summary

Table 3 Marketing Tanks Records

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/07/13	01/21/14	MKTF-03	03/02/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.42	1.17	7.59	6,924.10	6925.04	3 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.95	1.30	8.25	6,923.44	6924.48	3 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.35	0.80	7.15	6,924.54	6925.18	3 - 18	Chinle/Alluvium Interface
			11/28/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	7.00	0.95	7.95	6923.74	6924.50	3 - 18	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-04	03/02/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	8.31	6,925.26	NA	10 - 22	Chinle/Alluvium Interface
			06/07/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	9.28	6,924.29	NA	10 - 22	Chinle/Alluvium Interface
			09/26/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	8.80	6,924.77	NA	10 - 22	Chinle/Alluvium Interface
			11/29/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.27	22.30	ND	NA	9.30	6,924.27	NA	10 - 22	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-05	03/02/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.33	0.29	13.62	6,928.60	6928.83	4 - 14	Chinle/Alluvium Interface
			06/07/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.79	0.46	14.25	6,927.97	6928.34	4 - 14	Chinle/Alluvium Interface
			09/26/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.01	0.49	13.50	6,928.72	6929.11	4 - 14	Chinle/Alluvium Interface
			11/28/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.98	0.77	14.75	6,927.47	6928.09	4 - 14	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-06	03/15/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	15.95	0.10	16.05	6,930.76	6930.84	8 - 20	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.60	0.64	17.24	6,929.57	6930.08	8 - 20	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.01	0.71	16.72	6,930.09	6930.66	8 - 20	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.55	1.15	17.70	6,929.11	6930.03	8 - 20	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-07	03/15/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.63	1.97	12.60	6,934.58	6936.16	4 - 14	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.20	1.30	11.50	6,935.68	6936.72	4 - 14	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	9.80	1.30	11.10	6,936.08	6937.12	4 - 14	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.40	1.40	11.80	6,935.38	6936.50	4 - 14	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-08	03/15/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	11.99	0.61	12.60	6,934.49	6934.98	8 - 18	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	11.98	0.42	12.40	6,934.69	6935.03	8 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	12.15	0.45	12.60	6,934.49	6934.85	8 - 18	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	12.68	0.52	13.20	6,933.89	6934.31	8 - 18	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-09	03/15/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
			06/12/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
			09/28/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.69	6,933.81	NA	7 - 19	Chinle/Alluvium Interface
			11/29/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.75	22.75	ND	NA	13.15	6,933.35	NA	7 - 19	Chinle/Alluvium Interface
10/31/13	01/21/14	MKTF-10	03/02/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.47	6,929.69	NA	7 - 17	Chinle/Alluvium Interface
			06/07/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.02	6,930.14	NA	7 - 17	Chinle/Alluvium Interface
			09/27/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	6.78	6,930.38	NA	7 - 17	Chinle/Alluvium Interface
			11/29/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.00	6,930.16	NA	7 - 17	Chinle/Alluvium Interface

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/31/13	01/21/14	MKTF-11	03/02/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	6.96	6,924.38	NA	8 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	7.39	6,923.95	NA	8 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	6.70	6,924.64	NA	8 - 18	Chinle/Alluvium Interface
			11/29/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	8.00	6,923.34	NA	8 - 18	Chinle/Alluvium Interface
11/07/13	01/21/14	MKTF-12	03/15/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	17.75	0.06	17.81	6,924.30	6924.35	12 - 22	Chinle/Alluvium Interface
			06/07/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	18.60	0.19	18.79	6,923.32	6923.47	12 - 22	Chinle/Alluvium Interface
			10/03/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	17.30	0.13	17.43	6,924.68	6924.78	12 - 22	Chinle/Alluvium Interface
			11/27/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	18.43	0.13	18.56	6,923.55	6923.65	12 - 22	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-13	03/15/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	ND	NA	12.60	6,922.58	NA	8 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	13.35	0.06	13.41	6,921.77	6921.82	8 - 18	Chinle/Alluvium Interface
			10/03/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	11.91	0.03	11.94	6,923.24	6923.26	8 - 18	Chinle/Alluvium Interface
			11/27/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	13.14	0.01	13.15	6,922.03	6922.04	8 - 18	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-14	03/08/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	5.77	0.98	6.75	6,921.27	6922.05	4 - 14	Chinle/Alluvium Interface
			06/07/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	6.68	0.84	7.52	6,920.50	6921.17	4 - 14	Chinle/Alluvium Interface
			10/03/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	5.70	0.41	6.11	6,921.91	6922.24	4 - 14	Chinle/Alluvium Interface
			11/27/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	6.56	0.37	6.93	6,921.09	6921.39	4 - 14	Chinle/Alluvium Interface
10/29/13	01/21/14	MKTF-15	03/02/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	12.15	6,931.33	NA	9 - 19	Chinle/Alluvium Interface
			06/07/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	11.93	6,931.55	NA	9 - 19	Chinle/Alluvium Interface
			09/26/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	12.00	0.10	12.10	6,931.38	6931.46	9 - 19	Chinle/Alluvium Interface
			11/29/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	12.13	6,931.35	NA	9 - 19	Chinle/Alluvium Interface
11/07/13	01/21/14	MKTF-16	03/14/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.45	6,943.13	NA	4 - 14	Chinle/Alluvium Interface
			06/07/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.66	6,942.92	NA	4 - 14	Chinle/Alluvium Interface
			09/26/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.00	6,942.58	NA	4 - 14	Chinle/Alluvium Interface
			11/28/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.22	6,942.36	NA	4 - 14	Chinle/Alluvium Interface
11/14/13	01/21/14	MKTF-17	03/08/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	8.20	6,937.56	NA	14 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	9.98	6,935.78	NA	14 - 24	Chinle/Alluvium Interface
			09/26/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	9.33	6,936.43	NA	14 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.11	24.65	ND	NA	13.68	6,932.08	NA	14 - 24	Chinle/Alluvium Interface
11/15/13	01/21/14	MKTF-18	03/01/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	ND	NA	7.81	6,942.84	NA	17 - 27	Chinle/Alluvium Interface
			06/14/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	ND	NA	6.30	6,944.35	NA	17 - 27	Chinle/Alluvium Interface
			09/27/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	6.35	0.02	6.37	6,944.28	6944.30	17 - 27	Chinle/Alluvium Interface
			11/30/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	6.29	0.01	6.30	6,944.35	6944.36	17 - 27	Chinle/Alluvium Interface
11/05/13	04/30/14	MKTF-19	03/08/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	9.82	6,934.85	NA	10 - 20	Chinle/Alluvium Interface
			06/14/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	10.58	6,934.09	NA	10 - 20	Chinle/Alluvium Interface
			09/26/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	11.00	6,933.67	NA	10 - 20	Chinle/Alluvium Interface
			11/30/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,926.47	18.20	ND	NA	11.70	6,932.97	NA	10 - 20	Chinle/Alluvium Interface
02/10/14	04/30/14	MKTF-20	03/14/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	5.70	6,946.08	NA	2 - 10	Chinle/Alluvium Interface
			06/12/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	5.57	6,946.21	NA	2 - 10	Chinle/Alluvium Interface
			09/26/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	6.23	6,945.55	NA	2 - 10	Chinle/Alluvium Interface
			11/28/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,942.20	9.58	ND	NA	6.53	6,945.25	NA	2 - 10	Chinle/Alluvium Interface

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
02/10/14	04/30/14	MKTF-21	03/14/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.50	6,947.07	NA	2 - 10	Chinle/Alluvium Interface
			06/21/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.09	6,947.48	NA	2 - 10	Chinle/Alluvium Interface
			09/26/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.69	6,946.88	NA	2 - 10	Chinle/Alluvium Interface
			11/28/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,943.76	8.81	ND	NA	6.25	6,946.32	NA	2 - 10	Chinle/Alluvium Interface
03/31/14	04/30/14	MKTF-34	03/01/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	16.50	6,938.85	NA	9 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	17.63	6,927.72	NA	9 - 24	Chinle/Alluvium Interface
			09/26/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	17.62	6,927.73	NA	9 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.65	27.70	ND	NA	18.03	6,927.32	NA	9 - 24	Chinle/Alluvium Interface
11/19/14	12/16/14	MKTF-35	03/01/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	6.18	6,945.47	NA	6 - 16	Chinle/Alluvium Interface
			06/14/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	7.12	6,944.53	NA	6 - 16	Chinle/Alluvium Interface
			09/27/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	7.70	6,943.95	NA	6 - 16	Chinle/Alluvium Interface
			11/30/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	8.15	6,943.50	NA	6 - 16	Chinle/Alluvium Interface
11/19/14	12/16/14	MKTF-36	03/01/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.56	6,944.56	NA	5 15	Chinle/Alluvium Interface
			06/14/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.40	6,944.72	NA	5 15	Chinle/Alluvium Interface
			09/27/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.80	6,944.32	NA	5 15	Chinle/Alluvium Interface
			11/30/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	6.45	6,943.67	NA	5 15	Chinle/Alluvium Interface
11/18/14	12/16/14	MKTF-37	03/01/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	ND	NA	6.90	6,951.97	NA	4 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	7.20	0.04	7.24	6,951.63	6951.66	4 - 24	Chinle/Alluvium Interface
			09/27/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	7.83	0.06	7.89	6,950.98	6951.03	4 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	8.39	0.02	8.41	6,950.46	6950.48	4 - 24	Chinle/Alluvium Interface
11/20/14	12/16/14	MKTF-38	03/14/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.41	6,948.48	NA	5 - 20	Chinle/Alluvium Interface
			06/21/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.40	6,948.49	NA	5 - 20	Chinle/Alluvium Interface
			09/28/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.32	6,948.57	NA	5 - 20	Chinle/Alluvium Interface
			11/30/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	7.83	6,947.06	NA	5 - 20	Chinle/Alluvium Interface
11/14/14	12/16/14	MKTF-39	03/14/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	6.44	6,947.31	NA	5 - 15	Chinle/Alluvium Interface
			06/08/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	6.25	6,947.50	NA	5 - 15	Chinle/Alluvium Interface
			09/28/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	7.32	6,946.43	NA	5 - 15	Chinle/Alluvium Interface
			11/28/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.57	15.18	ND	NA	7.55	6,946.20	NA	5 - 15	Chinle/Alluvium Interface
Pre-existing	12/16/14	MKTF-45	03/01/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	10.32	0.31	10.63	6,938.96	6939.21	Unknown	Chinle/Alluvium Interface
			06/14/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.50	0.50	12.00	6,937.59	6937.99	Unknown	Chinle/Alluvium Interface
			10/03/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.48	0.53	12.01	6,937.58	6938.00	Unknown	Chinle/Alluvium Interface
			11/30/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	12.76	0.47	13.23	6,936.36	6936.74	Unknown	Chinle/Alluvium Interface

DEFINITIONS:

DTB - Depth to Bottom

DTW - Depth to Water

ND - Not Dectected

NA - Not Applicable

SPH - Separate Phase Hydrocarbons

NOTES:

1) Wells surveyed by a licensed professional surveyor-Hammon Enterprises, Inc. (HEI)

Negative number in Stick up Length column indicates well is flush mount and located at or below ground level
Depth to Water Column - if a measurement of 0.00 is indicated - means water level is at top of casing - Full.
Dry indicates no water was detected in the well.

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
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2) "0" indicates no SPH level.

3) Depth to SPH - Depth to Water Measurement = SPH Column Thickness.

4) Corrected Water Table Elevaton applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Groundwater Elevation)

5) 10/3/17 - Samples collected after end of third quarter due to rain storms and monitor well accessibility

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-4	11/2/2016	8260B	0.9	0.018	0.64	0.85	2.1
	9/11/2016	8260B	0.9	0.015	0.67	0.76	2.4
	6/9/2016	8260B	0.6	0.015	0.58	0.72	1.8
	2/29/2016	8260B	0.8	0.017	0.73	0.8	2.2
	11/3/2015	8260B	0.4	0.015	0.7	0.78	1.5
	8/18/2015	8260B	0.3	0.011	0.43	0.55	1.4
	6/4/2015	8260B	0.31	0.013	0.45	0.56	1.3
	3/16/2015	8260B	0.22	<0.01	0.26	0.34	1.2
	11/13/2014	8260B	0.18	<0.01	0.28	0.26	1.4
	9/15/2014	8260B	0.15	<0.005	0.14	0.14	1.4
	6/4/2014	8260B	0.67	0.019	0.57	0.68	1.8
	4/11/2014	8260B	1.0	0.025	0.8	1.0	2.4
MKTf-9	11/2/2016	8260B	1.6	0.026	0.21	0.052	0.5
	9/11/2016	8260B	2	0.03	0.22	0.059	0.62
	6/9/2016	8260B	1.4	0.029	0.21	0.056	0.53
	2/29/2016	8260B	1.6	0.029	0.24	0.064	0.69
	11/3/2015	8260B	1.5	0.036	0.23	0.07	0.63
	8/18/2015	8260B	1.2	0.035	0.2	0.063	0.6
	6/4/2015	8260B	0.89	0.025	0.15	0.039	0.43
	3/16/2015	8260B	0.49	0.013	0.08	0.018	0.5
	11/14/2014	8260B	0.81	0.033	0.15	0.11	0.77
	9/18/2014	8260B	0.75	0.027	0.096	0.043	0.76
	6/5/2014	8260B	1.3	0.052	0.2	0.098	1.2
	4/14/2014	8260B	1.1	0.038	0.14	0.075	1.2
MKTf-10	11/2/2016	8260B	17	22	1.7	8	<0.1
	9/11/2016	8260b	16	20	1.6	7.3	<0.1
	6/9/2016	8260B	15	22	1.7	8.9	0.018
	2/29/2016	8260B	11	23	1.7	7.7	<0.1
	11/3/2015	8260B	12	22	1.6	6.8	<0.05
	8/18/2015	8260B	9.2	19	1.5	6.5	<0.5
	6/4/2015	8260B	10	20	1.5	6.5	<0.05
	3/16/2015	8260B	11	21	1.6	6.8	<0.05
	11/14/2014	8260B	11	20	1.7	7.6	<0.02
	9/18/2014	8260B	11	15	0.93	4.0	<0.05
	6/6/2014	8260B	12	14	0.74	3.4	0.019
	4/11/2014	8260B	14	19	1.5	6.9	<0.05
MKTf-11	11/2/2016	8260B	3.9	4.5	0.52	1.6	0.071
	9/11/2016	8260B	4.5	4.8	0.53	1.6	0.081
	6/9/2016	8260B	4.5	5.8	0.57	1.8	0.078
	2/29/2016	8260B	5.1	6.4	0.67	2.2	0.12
	11/3/2015	8260B	11	13	0.96	3.9	0.056
	8/18/2015	8260B	3.7	4.2	0.5	1.5	0.082
	6/4/2015	8260B	12	13	1.2	4.9	0.041
	3/16/2015	8260B	10	11	0.93	3.7	0.048
	11/13/2014	8260B	9.5	8.2	0.77	2.3	0.08
	9/15/2014	8260B	9.5	7.1	0.72	2.0	0.083
	6/5/2014	8260B	12	7.8	0.75	2.2	0.096
	4/11/2014	8260B	15	7.6	0.93	2.2	0.15

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
Well ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
MKTf-15	11/2/2016	8260B	20	16	2.1	7.6	0.099
	9/11/2016	8260B	24	16	2.0	7.3	0.096
	6/4/15 , 3/16/15	8260B	SPH DETECTED				
	9/17/2014	8260B	11	7.0	1.4	4.3	0.38
	6/5/2014	8260B	12	8.8	1.3	3.7	0.27
	4/10/2014	8260B	16	2.4	1.2	6.1	0.27
	11/1/2013	8021B	12	12	1.5	4.8	NA
MKTf-16	11/3/2016	8260B	19	0.22	0.88	3.4	0.97
	9/12/2016	8260B	23	0.24	1.3	4.3	1.7
	6/9/2016	8260B	16	0.34	1.1	3.6	1.4
	2/29/2016	8260B	19	0.28	1.0	3.9	1.4
	11/3/2015	8260B	28	0.62	1.7	6.6	1.7
	8/23/2015	8260B	24	0.64	1.4	5.6	2.1
	6/8/2015	8260B	23	1.3	1.4	5.3	2.0
	3/16/2015	8260B	19	0.45	1.4	5.4	1.6
	11/18/2014	8260B	20	1.2	1.3	5.8	1.4
	9/17/2014	8260B	17	1.4	1.2	5.3	2.1
	6/5/2014	8260B	18	3.7	1.7	8.1	2.0
	4/10/2014	8260B	11	7.5	1.1	3.6	0.27
	11/19/2013	8021B	9.9	8.2	1.9	9.8	NA
MKTf-17	11/8/2016	8260B	0.76	0.0019	0.39	0.0043	0.36
	9/13/2016	8260B	1.3	0.0021	0.55	<0.015	0.38
	6/10/2016	8260B	1.9	0.006	0.52	0.24	0.49
	2/26/2016	8260B	0.26	<0.005	0.018	0.023	0.64
	11/3/2015	8260B	0.029	<0.002	0.31	<0.003	0.77
	8/18/2015	8260B	0.036	0.0011	0.3	0.0018	0.64
	6/8/2015	8260B	0.011	<0.001	0.018	<0.0015	0.5
	3/12/2015	8260B	0.0028	<0.001	0.0059	<0.0015	0.59
	11/18/2014	8260B	0.14	<0.001	0.078	<0.0015	0.57
	9/18/2014	8260B	0.55	<0.01	0.24	<0.015	0.69
	6/6/2014	8260B	2.6	<0.01	0.48	0.068	1.1
	4/9/2014	8260B	3.5	<0.01	0.58	0.27	1.3
	11/13/2013	8021B	1.8	1.6	0.71	2.7	NA
MKTf-18	11/8/2016	8260B	0.016	0.0003	0.014	0.0008	0.081
	9/13/2016	8260B	0.016	0.0004	0.015	0.0013	0.074
	6/10/2016	8260B	0.016	0.0005	0.021	0.0025	0.092
	2/26/2016	8260B	0.017	0.0006	0.034	0.0056	0.071
	11/3/2015	8260B	0.019	<0.002	0.041	0.017	0.083
	8/18/2015	8260B	0.032	0.0016	0.054	0.019	0.1
	6/8/2015	8260B	0.05	0.0033	0.049	0.031	0.082
	3/17/2015	8260B	0.058	<0.005	0.017	0.029	0.091
	11/18/2014	8260B	0.096	0.0076	0.09	0.047	0.1
	9/18/2014	8260B	0.12	0.013	0.069	0.042	0.12
	6/6/2014	8260B	0.29	0.014	0.036	0.055	0.14
	4/14/2014	8260B	0.29	0.015	0.058	0.044	0.15
	11/19/2013	8021B	0.33	0.37	0.13	0.47	NA

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-19	11/8/2016	8260B	1.3	0.0068	0.7	1.0	10
	9/13/2016	8260B	1.4	0.0075	0.69	0.92	8.9
	6/10/2016	8260B	1.5	0.0064	0.69	0.66	7.9
	2/25/2016	8260B	1.5	0.005	0.79	0.67	8.6
	11/3/2015	8260B	2.8	0.022	0.76	0.93	8.4
	8/18/2015	8260B	2.4	0.015	0.74	0.45	8.8
	6/8/2015	8260B	1.8	0.013	0.59	0.31	9.1
	3/12/2015	8260B	1.4	<0.01	0.43	0.15	9.7
	11/18/2014	8260B	2.3	<0.05	0.74	0.36	9.7
	9/24/2014	8260B	1.8	<0.05	0.73	0.76	11
	4/9/2014	8260B	1.4	<0.05	0.68	0.61	9.7
	11/5/2013	8021B	0.64	0.14	0.47	1.1	NA
MKTf-20 ¹	11/3/2016	8260B	13.0	0.4	1.1	9.2	0.19
	9/12/2016	8260B	18.0	0.48	1.3	8.8	0.16
	6/9/2016	8260B	11.0	0.39	0.85	7.9	0.16
	3/1/2016	8260B	13.0	0.47	1.1	9.2	0.13
	3/16/2015	8260B	7.0	2.3	0.089	9.6	<0.05
	11/18/2014	8260B	4.4	1.3	0.48	10	0.083
	4/11/2014	8260B	25	17	2.8	14	0.38
MKTf-21 ¹	11/3/2016	8260B	7.6	0.068	0.4	2.3	0.77
	9/12/2016	8260B	9.3	0.059	0.48	2.0	0.68
	6/9/2016	8260B	7.5	0.17	0.25	1.3	0.55
	3/1/2016	8260B	4.6	0.34	0.15	1.3	0.48
	6/10/2015	8260B	6.2	0.48	0.18	0.81	0.82
	3/16/2015	8260B	3.7	0.26	0.013	0.27	0.63
	4/11/2014	8260B	7.2	13	2.1	11	0.58
MKTf-34	11/8/2016	8260B	0.0001	<0.001	0.0002	<0.0015	0.001
	9/13/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.000
	6/10/2016	8260B	0.0005	<0.001	0.0003	<0.0015	0.001
	2/25/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/3/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/18/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/8/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTf-35	4/9/2014	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	11/3/2016	8260B	0.065	0.0003	0.0550	0.0100	0.01
	9/13/2016	8260B	0.37	0.0005	0.0250	0.0110	0.012
	6/10/2016	8260B	0.067	0.0003	0.0120	0.0055	0.019
	2/26/2016	8260B	0.046	<0.005	0.0340	0.0045	0.02
	11/3/2015	8260B	0.19	<0.001	0.0390	0.0023	0.048
	8/18/2015	8260B	0.97	<0.005	0.1600	<0.0075	0.061
	6/4/2015	8260B	0.79	0.0023	0.1900	0.0021	0.027
	3/17/2015	8260B	0.47	0.0052	0.3200	0.1700	0.033
MKTf-36	11/21/2014	8260B	0.039	<0.001	0.052	0.073	0.066
	11/8/2016	8260B	8.4	0.021	1.3	0.13	6.0
	9/13/2016	8260B	SPH DETECTED				
	8/18/2015	8260B	9.0	0.033	1.6	0.064	8.0
	6/4/2015	8260B	8.1	0.034	1.6	0.14	8.4
	3/17/2015	8260B	8.3	0.023	1.4	0.078	8.3
	11/21/2014	8260B	8.4	0.032	1.5	0.56	7.2

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-37	11/3/2016	8260B	0.96	0.012	0.014	0.84	0.03
	8/18/2015	8260B	0.76	0.14	0.024	1.6	0.05
	6/4/2015	8260B	1.2	0.058	0.017	0.93	0.054
	3/17/2015	8260B	0.82	0.27	0.029	0.49	0.057
	11/21/2014	8260B	0.14	0.2	0.009	1.3	0.027
MKTf-38	11/1/2016	8260B	0.0004	<0.001	<0.001	<0.0015	0.0010
	9/13/2016	8260B	0.0009	<0.001	<0.001	<0.0015	0.0006
	6/8/2016	8260B	0.0012	<0.001	<0.001	<0.0015	0.0052
	2/29/2016	8260B	0.0003	<0.001	<0.001	<0.0015	0.0006
	11/9/2015	8260B	0.0013	<0.001	<0.001	<0.0015	0.0043
	8/24/2015	8260B	0.0017	<0.001	<0.001	<0.0015	0.0073
	6/10/2015	8260B	0.0054	<0.001	<0.001	<0.0015	0.0076
	3/16/2015	8260B	0.0092	0.0180	<0.001	<0.0015	0.0060
	11/21/2014	8260B	0.0028	<0.001	0.0029	0.0031	0.0074
MKTf-39	11/1/2016	8260B	0.013	<0.005	0.059	<0.0075	<0.005
	9/13/2016	8260B	0.016	<0.005	0.06	<0.0075	<0.005
	6/8/2016	8260B	0.016	<0.001	0.061	7.E-03	4.E-04
	3/3/2016	8260B	0.019	<0.001	0.064	6.9E-04	<0.001
	11/9/2015	8260B	0.021	<0.001	0.064	<0.0015	<0.001
	8/23/2015	8260B	0.023	<0.001	0.06	1.6E-03	<0.001
	6/10/2015	8260B	0.025	<0.002	0.064	<0.003	<0.002
	3/16/2015	8260B	0.016	<0.002	0.039	<0.003	<0.002
	11/18/2014	8260B	0.02	<0.005	0.06	<0.0075	<0.005

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

EPA Regional Screening Level (RSL) Summary Table

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

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-4	11/2/2016	8015D/300.0	4.1	9.8	<5.0	1	180	<0.5	<0.5	6.1
	9/11/2016	8015D/300.0	5.3	10	<5.0	0.74	220	<1.0	<1.0	4.1
	6/9/2016	8015D/300.0	3.9	9	<5.0	0.79	250	<1.0	<1.0	7.0
	2/29/2016	8015D/300.0	3.6	9.2	<5.0	0.97	250	<1.0	<1.0	3.2
	11/3/2015	8015D/300.0	3.0	8.6	<5.0	0.96	300	<1.0	<1.0	3.0
	8/18/2015	8015D	3.7	6.8	<5.0	0.86	300	<0.1	<0.1	4.2
	6/4/2015	8015D	2.3	6.2	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	1.9	4.8	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	2.0	4.2	<5.0	<1.0	250	<1.0	<1.0	26
	9/15/2014	8015D	1.5	3.4	<5.0	NA	NA	NA	NA	NA
	6/4/2014	300.0/8015D	2.9	8.2	<5.0	0.7	0.19	<1.0	<1.0	6.8
	4/11/2014	8015D	4.5	9.4	<5.0	NA	NA	NA	NA	NA
MKTf-9	11/2/2016	300.0/8015D	1.6	7.8	<5.0	0.46	150	<0.5	<0.5	71
	9/11/2016	8015D/300.0	2.3	6.7	<5.0	0.26	160	<1.0	<1.0	57
	6/9/2016	300.0/8015D	1.7	7.8	<5.0	0.35	170	<1.0	<1.0	81
	2/29/2016	300.0/8015D	2.5	7.4	<5.0	0.47	170	<1.0	<1.0	70
	11/3/2015	300.0/8015D	5.3	9.8	<5.0	0.46	170	<0.1	<0.1	110
	8/18/2015	8015D/300.0	4.7	7.1	<5.0	0.43	170	<0.1	<0.1	130
	6/4/2015	8015D	1.8	4.1	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	<1.0	3.3	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	2.1	4.4	<5.0	<1.0	180	<1.0	<1.0	140
	9/18/2014	8015D	1.4	5.6	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.7	6.2	<5.0	0.43	180	<1.0	<1.0	78
	4/14/2014	8015D	3.6	5.7	<5.0	NA	NA	NA	NA	NA
MKTf-10	11/2/2016	300.0/8015D	3.8	100	<5.0	<0.05	230	<0.5	<0.5	<2.5
	9/11/2016	8015D/300.0	6	110	<5.0	<2.0	240	<1.0	<1.0	<2.5
	6/9/2016	300.0/8015D	8	110	<5.0	<2.0	260	<1.0	<1.0	0.4
	2/29/2016	300.0/8015D	14	110	<5.0	<2.0	280	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	8	100	<5.0	<2.0	380	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	55	130	<5.0	<5.0	390	<0.5	<0.5	<2.5
	6/4/2015	8015D	23	79	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	32	80	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	74	84	<5.0	270	260	<2.0	<2.0	<5.0
	9/18/2014	8015D	7.7	88	<5.0	NA	NA	NA	NA	NA
	6/6/2014 ¹	300.0/8015D	5.5	64	<5.0	NA	NA	NA	NA	NA
	4/11/2014	8015D	5.9	88	<5.0	NA	NA	NA	NA	NA
MKTf-11	11/2/2016	300.0/8015D	1.6	27	<5.0	<0.5	900	<0.5	<0.5	2.2
	9/11/2016	8015D/300.0	1.7	29	<5.0	<2.0	880	<1.0	<1.0	2.2
	6/9/2016	300.0/8015D	1.4	39	<5.0	<2.0	1000	<1.0	<1.0	2.2
	2/29/2016	300.0/8015D	1.5	42	<5.0	<0.5	1600	<1.0	<1.0	0.58
	11/3/2015	300.0/8015D	2.9	71	<5.0	<2.0	740	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	1.6	36	<5.0	<2.0	1200	<2.0	<0.1	1.2

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-11	6/4/2015	8015D	2.8	71	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.6	55	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	1.8	35	<5.0	6.5	780	<1.0	<1.0	<5.0
	9/15/2014	8015D	1.8	57	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.6	48	<5.0	7.0	480	<1.0	<1.0	11
	4/11/2014	300.0/8015D	2.7	53	<5.0	NA	NA	NA	NA	NA
MKTf-15	11/2/2016	8015D/300.0	6.2	110	<5.0	<0.05	2800	<2.0	<0.5	<2.5
	9/11/2016	8015D/300.0	17		<5.0	<2.0	3100	<4.0	<4.0	<2.5
	9/17/2014	8015D	17	88	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	10	57	<5.0	<2.0	5200	<4.0	<4.0	1.2
	4/10/2014	8015D	4.1	71	<5.0	NA	NA	NA	NA	NA
	11/1/2013	8015D	2.4	65	<5.0	NA	NA	NA	NA	NA
MKTf-16	11/3/2016	300.0/8015D	3.3	70	<5.0	1.2	380	<0.5	<0.5	<2.5
	9/12/2016	300.0/8015D	3.5	62	<5.0	1.3	390	<1.0	<1.0	0.36
	6/9/2016	300.0/8015D	3	69	<5.0	NA	NA	NA	NA	NA
	2/29/2016	300.0/8015D	2.6	73	<5.0	1	710	<1.0	<1.0	0.068
	11/3/2015	300.0/8015D	3.1	91	<5.0	0.88	1000	<1.0	<1.0	<2.5
	8/23/2015	8015D/300.0	3.7	83	<5.0	0.66	1700	<1.0	<1.0	<2.5
	6/8/2015	8015D	4.3	69	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.9	61	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.7	53	<5.0	1.5	700	<0.5	<0.5	<2.5
	9/17/2014	8015D	4.6	66	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	5.7	71	<5.0	1.1	540	<1.0	<1.0	<2.5
	4/10/2014	8015D	3.5	67	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	4.2	68	<5.0	NA	NA	NA	NA	NA
MKTf-17	11/8/2016	300.0/8015D	1.3	4.5	<5.0	0.77	64	<1.0	<1.0	45
	9/13/2016	300.0/8015D	1.6	7.5	<5.0	0.83	70	0.58	0.58	45
	6/10/2016	300.0/8015d	2.1	9.2	<5.0	NA	NA	NA	NA	NA
	2/26/2016	300.0/8015D	<1.0	1.6	<5.0	0.54	76	<1.0	<1.0	180
	11/3/2015	300.0/8015D	1.5	2.5	<5.0	0.61	78	<0.1	<0.1	120
	8/18/2015	8015D/300.0	1.1	1.7	<0.005	0.5	74	<0.1	<0.01	160
	6/8/2015	8015D	1.3	0.77	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	0.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	1.4	1.2	<5.0	0.66	84	<0.1	<0.1	200
	9/18/2014	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
	4/9/2014	8015D	2.6	8.6	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	5.8	17	<5.0	NA	NA	NA	NA	NA
MKTf-18	11/8/2016	300.0/8015D	1.7	0.6	<5.0	0.62	160	<1.0	<1.0	0.23
	9/13/2016	300.0/8015D	2.2	0.56	<5.0	0.67	170	<1.0	<1.0	0.34
	6/10/2016	8015D/300.0	1.9	0.71	<5.0	0.63	180	<1.0	<1.0	0.21
	2/26/2016	300.0/8015D	0.3	0.79	<5.0	0.64	160	<1.0	<1.0	0.26
	11/3/2015	300.0/8015D	2.5	1.3	<5.0	0.61	160	<0.1	<0.1	<0.5
	8/18/2015	8015D/300.0	34	1.3	<5.0	0.55	170	<0.1	<0.1	<0.5
	6/8/2015	8015D	3.3	1.4	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	5.4	1.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.3	1.4	<5.0	0.68	160	<0.5	<0.5	<2.5
	9/18/2014	8015D	3.1	1.4	<5.0	NA	NA	NA	NA	NA
	6/6/2014	8015D/300.0	7.8	2.2	<5.0	0.65	170	<1.0	<1.0	0.95
	4/14/2014	8015D	4.4	2.2	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	11	4	<5.0	NA	NA	NA	NA	NA
MKTf-19	11/8/2016	300.0/8015D	6.7	26	<5.0	0.28	110	<1.0	<1.0	0.89
	9/13/2016	300.0/8015D	7.3	25	<5.0	0.34	130	<1.0	<1.0	0.57
	6/10/2016	8015D/300.0	7.2	21	<5.0	0.17	150	<1.0	<1.0	0.28
	2/25/2016	300.0/8015D	7.8	22	<5.0	0.24	150	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	13	34	<5.0	<0.5	130	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	27	20	<5.0	0.18	140	<0.1	0.17	<0.5
	6/8/2015	8015D	9.9	19	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	9.3	14	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	13	20	<5.0	<0.5	110	<0.5	<0.5	<2.5
	9/24/2014	8015D	61	16	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	17	18	<5.0	NA	NA	NA	NA	NA
	11/5/2013	8015D	7.2	10	<5.0	NA	NA	NA	NA	NA

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-39	11/1/2016	8015D	17	0.36	<5.0	0.97	1300	<0.5	<0.5	<2.5
	9/13/2016	8015D/300.0	10	1.1	<5.0	0.26	1900	<2.0	<2.0	<10
	6/8/2016	8015D/300.0	19	0.67	<5.0	0.54	2300	<2.0	<2.0	0.21
	3/3/2016	8015D/300.0	13	0.46	<5.0	0.71	2900	<4.0	<4.0	4.2
	11/9/2015	8015D	23	0.44	<5.0	<2.0	6400	<2.0	<0.1	<0.5
	8/23/2015	8015D/300.0	13	0.93	<5.0	<0.5	9100	<4.0	<4.0	<2.5
	6/10/2015	8015D	44	0.44	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	6.2	0.21	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	15	0.39	<5.0	NA	NA	NA	NA	NA

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

EPA Regional Screening Level (RSL) Summary Table

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

NOTES

1) No samples collected for General Chemistry - not enough water.

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103			0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96	
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6	
Well ID	DATE SAMPLED	METHOD														
MKTf-4	11/2/2016	200.7/200.8	0.01	2.8	<0.002	<0.006	<0.006	4.6	0.0006	1.5	0.01	<0.005	<0.0002	0.004	0.006	
	9/11/2016	200.7/200.8	0.01	3.4	<0.002	<0.006	<0.006	6.7	0.0030	1.5	0.014	<0.005	<0.0002	0.003	0.007	
	6/9/2016	200.7/200.8	0.009	3.1	<0.002	<0.006	<0.006	6.2	0.0019	1.7	0.010	<0.005	<0.0002	0.005	0.016	
	2/29/2016	200.7/200.8	0.008	3.0	<0.002	<0.006	<0.006	5.6	0.0036	1.5	0.004	<0.005	<0.0002	0.004	0.022	
	11/3/2015	200.7/200.8	0.014	3.4	<0.002	<0.006	<0.006	16	0.0063	1.7	0.016	<0.005	<0.0002	0.002	0.012	
	8/18/2015	200.7/200.8	0.0085	3.0	<0.002	<0.006	0.006	17	0.0170	1.9	<0.01	<0.005	<0.0002	0.004	0.025	
	6/4/2015	200.7/200.8	0.0082	2.5	<0.002	0.009	<0.006	13	0.0097	1.9	<0.01	<0.005	<0.0002	0.005	0.017	
	3/16/2015	200.7/200.8	<0.01	1.8	<0.002	0.009	0.012	11	0.022	2.5	0.016	<0.005	<0.0002	0.017	0.03	
	11/13/2014	200.7/200.8	0.0079	1.9	<0.002	0.009	0.015	15	0.023	2.5	<0.05	<0.005	<0.0002	0.013	0.03	
	9/15/2014	200.7/200.8	0.0060	2.0	<0.002	0.015	0.021	20	0.036	2.9	0.008	<0.005	<0.0002	0.02	0.044	
	6/4/2014	200.7/200.8	0.0061	1.4	<0.002	0.009	0.013	7.9	0.013	2.1	0.013	<0.005	<0.0002	0.009	0.02	
	MKTf-9	11/2/2016	200.7/200.8	0.0028	0.47	<0.002	<0.006	<0.006	1.7	0.002	3.6	0.006	<0.005	<0.0002	0.007	0.003
9/11/2016		200.7/200.8	0.0033	0.52	<0.002	<0.006	<0.006	2.3	0.002	3.8	0.007	<0.005	<0.0002	0.006	<0.01	
6/9/2016		200.7/200.8	0.0023	0.49	<0.002	<0.006	<0.006	2.1	0.002	3.6	0.005	<0.005	<0.0002	0.007	<0.01	
2/29/2016		200.7/200.8	0.0020	0.64	<0.002	<0.006	<0.006	4.0	0.004	4.2	0.002	<0.005	<0.0002	0.005	0.012	
11/3/2015		200.7/200.8	0.0045	0.71	<0.002	<0.006	<0.006	8.8	0.011	4.3	<0.05	<0.005	<0.0002	0.005	0.019	
8/18/2015		200.7/200.8	0.0042	0.81	<0.002	<0.006	8.9E-03	7.7	0.015	3.7	<0.005	<0.005	<0.0002	0.005	0.027	
6/4/2015		200.7/200.8	<0.005	0.34	<0.002	<0.006	<0.006	3.1	<0.005	3.0	<0.005	<0.005	<0.0002	0.008	<0.01	
3/16/2015		200.7/200.8	0.0029	0.22	<0.002	<0.002	<0.002	2.0	0.002	2.4	0.005	<0.005	<0.0002	0.014	0.01	
11/14/2014		200.7/200.8	<0.005	0.39	<0.002	<0.006	<0.006	4.5	0.005	2.7	<0.01	<0.005	<0.0002	0.010	0.013	
9/18/2014		200.7/200.8	<0.005	0.33	<0.002	<0.006	<0.006	2.4	<0.001	2.8	<0.005	<0.005	<0.0002	0.012	<0.01	
6/5/2014		200.7/200.8	<0.005	0.58	<0.002	<0.006	<0.006	6.7	0.006	3.8	0.007	<0.005	<0.0002	0.006	0.015	
MKTf-10		11/2/2016	200.7/200.8	0.0096	6	<0.002	<0.006	<0.006	10	0.001	5.2	0.0049	<0.005	<0.0002	0.0009	0.0044
	9/11/2016	200.7/200.8	0.0083	11	<0.002	<0.006	<0.006	26	0.002	12	0.0058	<0.005	<0.0002	0.0012	0.0027	
	6/9/2016	200.7/200.8	0.0060	13	<0.002	<0.006	<0.006	36	0.002	15	0.0033	<0.005	<0.0002	0.0008	0.0190	
	2/29/2016	200.7/200.8	0.0086	16	<0.002	<0.006	<0.006	57	0.003	21	0.0020	<0.005	<0.0002	0.0015	0.0140	
	11/3/2015	200.7/200.8	0.0059	14	<0.002	<0.006	<0.006	61	0.025	19	<0.05	<0.005	<0.0002	0.0019	0.0320	
	8/18/2015	200.7/200.8	0.0380	15	<0.002	0.013	<0.006	64	0.58	22	<0.05	<0.005	0.0003	0.0630	0.4900	
	6/4/2015	200.7/200.8	0.015	19	<0.002	0.077	0.1	120	0.19	24	<0.01	<0.005	<0.0002	0.0140	0.1500	
	3/16/2015	200.7/200.8	0.019	22	<0.002	0.036	0.095	100	0.2	27	<0.01	<0.005	<0.0002	0.0190	0.1400	
	11/14/2014	200.7/200.8	<0.04	45	<0.004	0.099	0.24	250	0.58	49	<0.04	<0.01	<0.0004	0.0520	0.3100	
	9/18/2014	200.7/200.8	<0.005	12	<0.002	<0.006	<0.006	46	0.002	15	0.0032	<0.005	<0.0002	0.0013	<0.01	
	6/6/2014	200.7/200.8	<0.005	7.7	<0.002	<0.006	<0.006	25	<0.005	9.5	0.0061	<0.005	<0.0002	<0.005	<0.01	

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103			0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96	
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6	
Well ID	DATE SAMPLED	METHOD														
MKTF-18	11/8/2016	200.7/200.8	0.003	1.7	<0.002	<0.006	<0.006	2.2	0.000	1.8	0.006	<0.005	<0.0002	0.001	<0.01	
	9/13/2016	200.7/200.8	0.003	1.8	<0.002	<0.006	<0.006	3.3	0.001	2.0	0.005	<0.005	0.000	0.001	0.004	
	6/10/2016	200.7/200.8	0.003	1.9	<0.002	<0.006	<0.006	2.5	0.001	1.9	0.006	<0.005	<0.0002	0.001	<0.01	
	2/26/2016	200.7/200.8	0.002	2.3	<0.002	4.3E-03	5.7E-03	6.4	0.006	2.1	0.002	<0.005	<0.0002	0.002	0.020	
	11/3/2015	200.7/200.8	0.009	12	<0.002	0.046	0.064	58.0	0.14	11	<0.01	<0.005	<0.001	0.015	0.190	
	8/18/2015	200.7/200.8	0.018	24	<0.01	0.26	0.21	110.0	0.37	22	<0.01	<0.005	0.000	0.037	0.540	
	6/8/2015	200.7/200.8	<0.005	2.5	<0.002	<0.006	<0.006	5.0	<0.0025	1.8	<0.005	<0.005	<0.0002	<0.0025	<0.01	
	3/17/2015	200.7/200.8	0.003	3.5	<0.002	0.012	0.011	14.0	0.021	2.7	<0.01	<0.005	<0.0002	0.003	0.051	
	11/18/2014	200.7/200.8	0.002	2.5	<0.002	<0.006	<0.006	4.0	1.6E-03	1.8	<0.01	<0.005	<0.0002	<0.001	0.020	
	9/18/2014	200.7/200.8	0.002	2.6	<0.002	<0.006	<0.006	3.2	2.8E-03	2.0	0.003	<0.005	<0.0002	0.002	0.018	
MKTF-19	6/6/2014	200.7/200.8	0.013	19	<0.01	0.11	0.12	81	0.29	17	0.013	<0.025	<0.0002	0.022	0.310	
	11/8/2016	200.7/200.8	0.013	2.2	<0.002	8.8E-03	0.015	33	0.033	2.6	0.009	<0.005	<0.0002	0.006	0.070	
	9/13/2016	200.7/200.8	0.015	2.1	<0.002	5.7E-03	8.3E-03	17	0.023	2.6	0.008	<0.005	0.000	0.004	0.065	
	6/10/2016	200.7/200.8	0.016	2.6	<0.002	8.2E-03	0.012	19	0.038	3.3	0.011	<0.005	<0.0002	0.008	0.077	
	2/25/2016	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	0.010	
	11/3/2015	200.7/200.8	0.018	2.7	<0.002	<0.006	<0.006	13	0.046	3.4	0.010	<0.005	<0.0002	0.008	0.096	
	8/18/2015	200.7/200.8	0.018	4.4	<0.002	0.044	0.06	64	0.14	6.3	0.006	<0.005	<0.0002	0.024	0.220	
	6/8/2015	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	0.005	0.082	
	3/12/2015	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	0.007	0.078	
	11/18/2014	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	0.110	
MKTF-20	11/3/2016	200.7/200.8	0.029	9.3	<0.002	<0.006	0.019	22	9.0E-03	8.9	0.013	<0.005	<0.0002	0.005	0.024	
	9/12/2016	200.7/200.8	0.025	5.2	<0.002	<0.006	0.022	17	7.2E-03	4.4	0.009	<0.005	<0.0002	0.004	0.033	
	6/9/2016	200.7/200.8	0.038	4.6	<0.002	<0.006	0.09	17	1.9E-02	5.0	0.009	<0.005	0.000	0.020	0.085	
	3/16/2015	200.7/200.8	0.025	2.0	<0.002	<0.006	0.016	11	6.6E-03	3.2	0.005	<0.005	<0.0002	0.011	0.030	
	11/18/2014	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	0.007	0.190	
MKTF-21	11/3/2016	200.7/200.8	0.021	4.3	<0.002	<0.006	<0.006	33	3.3E-03	5.1	0.009	<0.005	<0.0002	0.002	0.057	
	9/12/2016	200.7/200.8	0.019	2.7	<0.002	<0.006	6.4E-03	24	3.1E-03	4.1	0.009	<0.005	0.000	0.001	0.048	
	6/10/2015	200.7/200.8	Not enough water to collect samples													
	3/16/2015	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	0.007	0.440	

Table 2
Groundwater Analyses Summary

STANDARDS				PARAMETERS - TOTAL METALS											
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)
	WQCC 20NMAC 6.2.3103		0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)		8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96
	EPA RSL for Tap Water (MAY 2016)		5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
MKTf-34	11/8/2016	200.7/200.8	2.6E-03	0.085	<0.002	<0.006	<0.006	0.7	8.7E-04	0.017	0.011	<0.005	0.000	0.038	0.007
	9/13/2016	200.7/200.8	4.4E-03	0.12	<0.002	<0.006	<0.006	0.6	8.0E-04	0.014	0.011	<0.005	0.000	0.034	0.008
	6/10/2016	200.7/200.8	4.7E-03	0.15	<0.002	<0.006	<0.006	2.3	2.6E-03	0.054	0.014	<0.005	<0.0002	0.032	0.024
	2/25/2016	200.7/200.8	0.003	0.15	<0.002	<0.006	<0.006	1.6	1.6E-03	0.044	0.007	<0.005	<0.0002	0.032	0.023
	11/3/2015	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	1.0	1.2E-03	0.03	<0.02	<0.005	<0.0002	0.027	0.012
	8/18/2015	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	2.4	2.7E-03	0.074	0.009	<0.005	<0.0002	0.031	0.030
	6/8/2015	200.7/200.8	<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
	3/12/2015	200.7/200.8	<0.01	0.25	<0.002	<0.006	<0.006	5.2	4.5E-03	0.15	0.013	<0.005	<0.0002	0.028	0.059
	11/17/2014	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	2.4	1.4E-03	0.075	<0.02	<0.005	<0.0002	0.026	0.037
MKTf-35	11/3/2016	200.7/200.8	3.5E-03	1.2	<0.002	0.011	0.012	22	0.019	5.5	0.002	<0.005	0.000	0.004	0.039
	9/13/2016	200.7/200.8	2.4E-03	2.3	<0.002	4.5E-03	4.4E-03	8.6	0.012	3.8	0.002	<0.005	0.000	0.002	0.017
	6/10/2016	200.7/200.8	9.3E-04	0.89	<0.002	2.3E-03	<0.006	4.5	4.9E-03	3.3	0.001	<0.005	<0.0002	0.002	0.007
	2/26/2016	200.7/200.8	0.002	3.3	<0.002	0.009	<0.006	9.1	0.013	4.1	0.001	<0.005	<0.0002	0.003	0.026
	11/3/2015	200.7/200.8	0.002	2.3	<0.002	<0.006	<0.006	7.5	0.011	4.5	<0.005	<0.005	<0.0002	0.003	0.017
	8/18/2015	200.7/200.8	0.004	8.7	<0.002	0.016	0.020	17	0.034	6.5	<0.005	<0.005	<0.0002	0.005	0.051
	6/4/2015	200.7/200.8	<0.005	5.0	<0.002	0.018	0.013	13	0.023	6.4	<0.005	<0.005	<0.0002	0.004	0.032
MKTf-36	3/17/2015	200.7/200.8	0.004	8.2	<0.002	0.013	0.025	15	0.034	6.3	<0.005	<0.005	<0.0002	0.005	0.062
	11/8/2016	200.7/200.8	0.018	6.6	<0.002	<0.006	0.007	18	0.01	1.9	0.005	<0.005	<0.0002	0.001	0.160
	8/18/2015	200.7/200.8	0.016	5.7	<0.002	<0.006	<0.006	21	0.017	2.7	<0.005	<0.005	<0.0002	0.001	0.018
	6/4/2015	200.7/200.8	0.017	6.8	<0.002	0.010	0.008	22	0.016	2.8	<0.005	<0.005	<0.0002	<0.0025	0.023
MKTf-37	3/17/2015	200.7/200.8	0.016	7	<0.002	<0.006	<0.006	22	0.015	2.8	0.006	<0.005	<0.0002	0.002	0.028
	11/3/2016	200.7/200.8	0.003	0.69	<0.002	<0.006	0.005	2.2	0.005	0.55	0.004	<0.005	<0.0002	0.025	0.015
	8/19/2015	200.7/200.9	0.003	0.24	<0.002	<0.006	0.009	5.7	0.024	1.7	<0.005	<0.005	<0.0002	0.020	0.074
	6/4/2015	200.7/200.8	<0.005	0.23	<0.002	0.006	0.010	4.8	0.036	2.6	<0.005	<0.005	<0.0002	0.024	0.044
	3/17/2015	200.7/200.8	0.003	0.23	<0.002	<0.006	0.012	5.1	0.030	2.9	0.004	<0.005	<0.0002	0.026	0.140

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS - TOTAL METALS												
			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 20NMAC 6.2.3103			0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	DATE SAMPLED	METHOD													
MKTf-38	11/1/2016	200.7/200.8	0.002	0.12	<0.002	<0.006	<0.006	1.7	0.003	3.3	0.004	<0.005	<0.0002	0.014	0.007
	9/13/2016	200.7/200.8	0.003	0.075	<0.002	<0.006	<0.006	0.61	0.001	3.0	0.005	<0.005	0.000	0.014	0.006
	6/8/2016	200.7/200.8	0.002	0.23	<0.002	<0.006	<0.006	3.0	0.004	3.8	0.005	<0.005	<0.0002	0.014	0.025
	2/29/2016	200.7/200.8	0.002	0.14	<0.002	<0.006	<0.006	2.3	0.004	2.7	0.002	<0.005	<0.0002	0.014	0.014
	11/9/2015	200.7/200.8	0.005	0.93	<0.002	0.010	0.009	11	0.020	4.2	<0.1	<0.005	<0.0002	0.020	0.035
	8/24/2015	200.7/200.8	0.003	0.49	<0.002	0.006	0.008	7.2	0.010	3.9	0.004	<0.005	<0.0002	0.019	0.025
	6/10/2015	200.7/200.8	<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
MKTf-39	3/16/2015	200.7/200.8	0.003	0.34	<0.002	<0.006	<0.006	3.5	0.006	3.1	0.006	<0.005	<0.0002	0.029	0.014
	11/1/2016	200.7/200.8	0.004	6.1	<0.002	<0.006	<0.006	8.7	0.005	1.3	0.008	<0.005	<0.0002	<0.0025	0.009
	9/13/2016	200.7/200.8	0.005	9.7	<0.002	<0.006	<0.006	12	0.007	1.8	0.012	<0.005	0.000	0.000	0.014
	6/8/2016	200.7/200.8	0.002	8.5	<0.002	<0.006	<0.006	12	0.012	1.8	0.007	<0.005	0.000	0.001	0.028
	3/3/2016	200.7/200.8	<0.01	11	<0.002	<0.006	<0.006	13	0.01	1.9	0.007	<0.005	<0.0002	0.001	0.011
	11/9/2015	200.7/200.8	0.006	33	<0.002	0.009	0.037	45	0.049	5.2	<0.05	<0.005	0.000	0.004	0.076
	8/23/2015	200.7/200.8	<0.005	49	<0.002	<0.006	0.019	57	0.034	6.8	<0.01	<0.005	0.000	0.004	0.062
	6/10/2015	200.7/200.8	<0.005	58	<0.002	<0.006	<0.006	59	0.031	8	<0.005	<0.005	<0.0002	0.003	0.042
	3/16/2015	200.7/200.8	<0.01	35	<0.01	<0.03	<0.03	50	0.034	8.6	<0.01	<0.025	0.000	0.012	0.059

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

EPA Regional Screening Level (RSL) Summary Table

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

Table 2
Groundwater Analyses Summary

[illegible]

Table 2

Groundwater Analyses Summary

STANDARDS														
WQCC 20NMAC 6.2.3103														
40 CFR 141.62 MCL														
NMED Tap Water (March 2017)														
EPA RSL for Tap Water (MAY 2016)														
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-11	11/2/2016	200.7/200.8	0.013	2.6	<0.002	<0.006	<0.006	5.4	<0.0005	3.6	<0.005	0.005	0.006	0.004
	9/12/2016	200.7/200.8	0.014	2.5	<0.002	<0.006	<0.06	4.6	<0.0005	3.8	<0.005	0.006	0.004	<0.01
	6/9/2016	200.7/200.8	0.014	2.5	<0.002	<0.006	<0.006	4.3	<0.0005	3.5	<0.005	0.004	0.008	<0.01
	2/29/2016	200.7/200.8	0.015	3.6	<0.002	<0.006	<0.006	8.0	0.0003	5.7	<0.005	0.005	0.005	0.011
	11/3/2015	200.7/200.8	0.008	4.0	<0.002	<0.006	<0.006	12	<0.0005	3.6	<0.005	0.006	<0.0005	<0.01
	8/18/2015	200.7/200.8	<0.01	2.0	<0.002	<0.006	<0.006	4.0	<0.0025	4.0	<0.005	<0.01	0.003	<0.01
	6/4/2015	200.7/200.8	<0.01	2.7	<0.002	<0.006	<0.006	9.9	<0.01	3.0	<0.005	<0.01	<0.01	0.018
	3/16/2015	200.7/200.8	0.009	2.0	<0.002	<0.006	<0.006	4.8	<0.001	2.9	<0.005	0.008	0.001	<0.01
	11/13/2014	200.7/200.8	<0.01	1.5	<0.002	<0.006	<0.006	3.4	<0.001	3.2	<0.005	0.005	0.003	0.019
	9/15/2014	200.7/200.8	0.009	1.1	<0.002	<0.006	<0.006	2.7	<0.001	2.4	<0.005	<0.005	0.004	<0.01
MKTf-15	6/5/2014	200.7/200.8	0.006	1.8	<0.002	6.0E-03	<0.006	11	0.0220	3.6	<0.005	0.010	<0.01	0.036
	11/2/2016	200.7/200.8	0.003	20	<0.002	<0.006	<0.006	26	<0.0025	6.5	<0.005	0.007	<0.0025	0.014
	9/11/2016	200.7/200.8	0.003	23	<0.002	<0.006	<0.006	32	0.0005	7.6	<0.005	0.009	0.000	0.040
	9/17/2014	200.7/200.8	<0.01	27	<0.002	<0.006	<0.006	13	<0.01	9.0	<0.005	<0.01	<0.01	<0.01
MKTf-16	6/5/2014	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
	11/3/2016	200.7/200.8	0.015	0.69	<0.002	<0.006	<0.006	2.2	0.0004	0.87	<0.005	0.013	0.005	0.004
	9/12/2016	200.7/200.8	0.014	0.67	<0.002	<0.006	<0.006	2.4	0.0003	0.94	<0.005	0.013	0.004	<0.01
	2/29/2016	200.7/200.8	0.010	1.3	<0.002	<0.006	<0.006	5.8	0.0008	1.7	<0.005	0.010	0.000	0.018
	11/3/2015	200.7/200.8	0.016	3.1	<0.002	<0.006	<0.006	13	<0.0005	3.9	<0.005	0.019	<0.0005	<0.01
	8/23/2015	200.7/200.8	0.010	2.7	<0.002	<0.006	<0.006	11	<0.0025	4.1	<0.005	0.010	<0.0025	<0.01
	6/8/2015	200.7/200.8	0.009	2.3	<0.002	<0.006	<0.006	11	<0.005	3.6	<0.005	0.008	<0.005	0.017
	3/16/2015	200.7/200.8	<0.01	0.94	<0.002	<0.006	<0.006	5.6	<0.001	1.2	<0.005	<0.02	<0.001	0.024
	11/18/2014	200.7/200.8	0.011	0.88	<0.002	<0.006	<0.006	7.2	<0.001	1.1	<0.005	<0.01	<0.001	0.019
	9/17/2014	200.7/200.8	0.011	0.81	<0.002	<0.006	<0.006	7.3	<0.001	1.1	<0.005	<0.01	<0.001	0.017
MKTf-17	6/5/2014	200.7/200.8	0.013	0.81	<0.002	<0.006	<0.006	7.9	<0.005	1.3	<0.005	0.017	<0.01	0.022
	11/8/2016	200.7/200.8	0.005	0.52	<0.002	<0.006	<0.006	0.21	<0.0005	2.7	<0.005	0.003	0.007	<0.01
	9/13/2016	200.7/200.8	0.006	0.65	<0.002	<0.006	<0.006	0.23	<0.005	3.0	<0.005	0.005	0.008	<0.01
	2/26/2016	200.7/200.8	0.003	0.095	<0.002	<0.006	<0.006	0.093	0.0001	2.8	<0.005	0.002	0.018	0.020
	11/3/2015	200.7/200.8	0.010	0.19	<0.002	<0.006	<0.006	0.65	<0.0005	3.5	<0.005	0.005	0.013	<0.01
	8/18/2015	200.7/200.8	<0.01	0.097	<0.02	<0.006	<0.006	0.49	<0.0025	2.8	<0.005	<0.01	0.017	<0.01
	6/8/2015	200.7/200.8	<0.005	0.11	<0.002	<0.006	<0.006	0.14	<0.002	3.1	<0.005	<0.005	0.021	<0.01
	3/12/2015	200.7/200.8	0.006	0.13	<0.002	<0.006	<0.006	0.57	<0.001	3.0	<0.005	0.006	0.021	<0.01
	11/18/2014	200.7/200.8	0.005	0.14	<0.002	<0.006	<0.006	0.08	<0.001	2.8	<0.005	<0.01	0.022	0.027
	9/18/2014	200.7/200.8	0.005	0.16	<0.002	<0.006	<0.006	0.27	<0.001	3.1	<0.005	<0.005	0.022	0.018
MKTf-18	6/16/2014	200.7/200.8	0.005	0.24	<0.002	<0.006	<0.006	0.94	<0.005	3.3	<0.005	<0.005	0.022	0.140
	11/8/2016	200.7/200.8	0.003	1.7	<0.002	<0.006	<0.006	0.81	<0.0005	1.9	<0.005	0.005	0.001	<0.01
	9/13/2016	200.7/200.8	0.003	1.8	<0.002	<0.006	<0.006	0.89	<0.0005	2.0	<0.005	0.007	0.001	<0.01
	6/10/2016	200.7/200.8	0.002	1.9	<0.002	<0.006	<0.006	1.5	<0.0005	1.9	<0.005	0.005	0.001	<0.01
	2/26/2016	200.7/200.8	0.002	2.1	<0.002	<0.006	<0.006	2.1	0.0004	1.9	<0.005	0.002	0.001	0.011
	11/3/2015	200.7/200.8	0.003	2.5	<0.002	<0.006	<0.006	4.8	0.0053	1.9	<0.005	<0.01	0.001	<0.01
	8/18/2015	200.7/200.8	<0.01	2.0	<0.002	<0.006	<0.006	1.2	<0.0025	1.7	<0.005	<0.01	<0.0025	<0.01
	6/8/2015	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
	3/17/2015	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
	11/18/2014	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
	9/18/2014	200.7/200.8	<0.005	2.3	<0.002	<0.006	<0.006	0.3	<0.001	1.7	<0.005	<0.005	0.001	0.012
	6/6/2014	200.7/200.8	<0.005	2.4	<0.002	<0.006	<0.006	4.5	<0.005	2.0	<0.005	0.009	<0.01	<0.01

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS											
	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)	Zinc (mg/L)
STANDARDS	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.03	10.0
	0.01	2.0	0.005	0.1	NE	NE	0.015	NE	NE	0.03	NE
	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	5.96
	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	6
Well ID	DATE SAMPLED	METHOD									
MKTf-19	11/8/2016	200.7/200.8	0.011	1.6	<0.002	<0.006	0.0023	2.2	<0.005	0.008	0.009
	9/13/2016	200.7/200.8	0.017	1.7	<0.002	<0.006	0.0023	2.4	<0.005	0.008	0.001
	6/10/2016	200.7/200.8	0.015	1.6	<0.002	<0.006	0.0022	2.7	<0.005	0.013	0.006
	2/25/2016	200.7/200.8	0.015	1.7	<0.002	<0.006	0.0034	3.1	<0.005	0.004	0.001
	11/3/2015	200.7/200.8	0.018	1.7	<0.002	<0.006	0.0016	3.4	<0.005	<0.0005	<0.01
	8/18/2015	200.7/200.8	0.020	1.7	<0.002	<0.006	0.0032	3.2	<0.005	<0.01	<0.0025
	6/8/2015	200.7/200.8	0.019	1.7	<0.002	<0.006	<0.002	3.3	<0.005	<0.01	<0.01
	3/12/2015	200.7/200.8	0.021	1.6	<0.002	<0.006	0.0017	3.1	<0.005	<0.02	0.012
	11/18/2014	200.7/200.8	0.022	1.6	<0.002	<0.006	0.0019	3.0	<0.005	<0.01	0.018
MKTf-20	11/3/2016	200.7/200.8	0.029	8.6	<0.002	<0.006	0.0090	8.0	<0.005	0.013	0.014
	9/12/2016	200.7/200.8	0.027	4.7	<0.002	<0.006	0.0040	3.8	<0.005	0.008	0.012
	6/9/2016	200.7/200.8	0.034	3.3	<0.002	<0.006	0.0120	3.9	<0.005	0.008	0.016
	6/8/2015	200.7/200.8	0.012	1.5	<0.002	<0.006	<0.005	2.0	<0.005	<0.005	0.045
	3/16/2015	200.7/200.8	0.022	2.0	<0.002	<0.006	0.0013	3.1	<0.005	<0.01	<0.01
MKTf-21	11/3/2016	200.7/200.8	0.019	4.3	<0.002	<0.006	0.0010	5.0	<0.005	0.012	0.017
	9/12/2016	200.7/200.8	0.020	2.5	<0.002	<0.006	0.0018	3.7	<0.005	0.009	0.023
	6/10/2015	200.7/200.8	Not enough water to collect samples								
	3/16/2015	200.7/200.8	0.011	1.9	<0.002	<0.006	0.0120	3.1	<0.005	<0.01	0.074
MKTf-33	11/1/2016	200.7/200.8	0.001	0.041	<0.002	<0.006	<0.0005	0.13	<0.005	0.003	0.017
	9/10/2016	200.7/200.8	0.001	0.043	<0.002	<0.006	0.0002	0.13	<0.005	0.004	<0.01
	6/10/2016	200.7/200.8	0.002	0.04	<0.002	<0.006	<0.0005	0.031	<0.005	0.004	0.011
	2/25/2016	200.7/200.8	0.001	0.047	<0.002	<0.006	0.0001	0.16	<0.005	0.002	0.017
	11/9/2015	200.7/200.8	<0.005	0.062	<0.002	<0.006	0.0006	0.24	<0.005	<0.005	<0.01
	8/21/2015	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.0005		<0.005	0.002	<0.01
	6/9/2015	200.7/200.8	<0.005	0.055	<0.002	<0.006	<0.002	0.14	<0.005	<0.005	0.028
	3/12/2015	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.001	0.28	<0.005	<0.01	0.017
	11/17/2014	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.001	0.24	<0.005	<0.005	0.016
	11/8/2016	200.7/200.8	0.003	0.057	<0.002	<0.006	<0.0005	3.5E-04	<0.005	0.008	0.003
	9/13/2016	200.7/200.8	0.004	0.11	<0.002	<0.006	<0.0005	5.3E-04	<0.005	0.016	0.003
	6/10/2016	200.7/200.8	0.005	0.1	<0.002	<0.006	<0.0025	1.7E-03	<0.005	0.018	0.004
MKTf-34	2/25/2016	200.7/200.8	0.003	0.13	<0.002	<0.006	0.0001	0.001	<0.005	0.010	0.012
	1/3/2015	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.0005	<0.002	<0.005	<0.02	<0.01
	8/18/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.0025	<0.002	<0.005	<0.01	<0.01
	6/8/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.002	5.9E-03	<0.005	<0.01	0.018
	3/12/2015	200.7/200.8	<0.01	0.12	<0.002	<0.006	<0.001	0.013	<0.005	<0.05	<0.01
	11/17/2014	200.7/200.8	<0.01	0.15	<0.002	<0.006	<0.001	4.1E-03	<0.005	<0.02	0.051

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS													
		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 20NMAC 6.2.3103	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.03	10.0
	40 CFR 141.62 MCL	0.01	2.0	0.005	0.1	NE	NE	0.015	NE	NE	0.05	0.03	NE
	NMED Tap Water (March 2017)	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
	EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
MKTTF-35	DATE SAMPLED	METHOD											
	11/3/2016	200.7/200.8	0.23	<0.002	<0.006	<0.006	3	0.0003	2.9	<0.005	0.001	0.001	<0.01
	9/13/2016	200.7/200.8	0.17	<0.002	<0.006	<0.006	2.7	<0.0005	3.1	<0.005	0.003	0.001	0.003
	6/10/2016	200.7/200.8	0.37	<0.002	<0.006	<0.006	2.5	<0.0005	2.7	<0.005	0.002	0.001	<0.01
	2/26/2016	200.7/200.8	0.43	<0.002	<0.006	<0.006	2.8	0.0004	3.0	<0.005	0.001	0.002	0.010
MKTTF-36	11/3/2015	200.7/200.8	0.57	<0.002	<0.006	<0.006	2.6	<0.0005	3.0	<0.005	0.004	0.002	<0.01
	8/18/2015	200.7/200.8	0.96	<0.002	<0.006	<0.006	2.8	<0.0025	2.9	<0.005	<0.01	<0.0025	<0.01
	6/4/2015	200.7/200.8	0.36	<0.002	<0.006	<0.006	2.6	<0.005	3.1	<0.005	<0.005	<0.005	0.017
	3/17/2015	200.7/200.8	0.31	<0.002	<0.006	<0.006	3.6	0.0011	3.5	<0.005	<0.01	0.003	<0.01
MKTTF-37	11/8/2016	200.7/200.8	6.0	<0.002	<0.006	<0.006	13	0.0022	1.9	<0.005	0.004	0.000	0.006
	8/18/2015	200.7/200.8	6.1	<0.002	0.0064	<0.006	18	<0.0025	2.5	<0.005	<0.01	<0.0025	<0.01
	6/4/2015	200.7/200.8	6.6	<0.002	<0.006	<0.006	18	<0.005	2.4	<0.005	<0.005	<0.005	0.012
	3/17/2015	200.7/200.8	6.4	<0.002	<0.006	<0.006	19	0.0034	2.6	<0.005	<0.01	<0.001	0.047
MKTTF-38	11/3/2016	200.7/200.8	0.58	<0.002	<0.006	<0.006	0.25	0.0003	0.46	<0.005	0.003	0.036	<0.01
	8/19/2015	200.7/200.9	1.19	<0.002	<0.006	<0.006	2.6	0.0047	1.8	<0.005	<0.01	1.019	<0.02
	6/4/2015	200.7/200.8	0.19	<0.002	<0.006	<0.006	1.8	<0.01	2.3	<0.005	<0.01	0.023	0.039
	3/17/2015	200.7/200.8	0.16	<0.002	<0.006	<0.006	1.1	0.0071	2.7	<0.005	<0.01	0.021	0.029
MKTTF-39	11/1/2016	200.7/200.8	0.044	<0.002	<0.006	<0.006	0.038	<0.0005	3.3	<0.005	0.004	0.013	<0.01
	9/13/2016	200.7/200.8	0.039	<0.002	<0.006	<0.006	<0.02	<0.0005	3.1	<0.005	0.005	0.013	0.004
	6/8/2016	200.7/200.8	0.031	<0.002	<0.006	<0.006	0.015	<0.0005	2.8	<0.005	0.006	0.013	0.007
	2/29/2016	200.7/200.8	0.03	<0.002	<0.006	<0.006	0.07	0.0000	2.3	<0.005	0.003	0.012	0.012
	11/9/2015	200.7/200.8	0.066	<0.002	<0.006	<0.006	0.22	0.0010	3.4	<0.005	<0.05	0.019	<0.01
MKTTF-39	8/24/2015	200.7/200.8	0.066	<0.002	<0.006	<0.006	0.094	<0.0005	3.0	<0.005	0.003	0.023	<0.01
	6/10/2015	200.7/200.8	0.074	<0.002	<0.006	<0.006	0.31	<0.005	3.1	<0.005	<0.005	0.021	0.021
	3/16/2015	200.7/200.8	0.14	<0.002	<0.006	<0.006	0.24	<0.001	3.1	<0.005	<0.01	0.025	0.096
MKTTF-39	11/1/2016	200.7/200.8	6	<0.002	<0.006	<0.006	6.9	0.0005	1.2	<0.005	0.010	0.000	<0.01
	9/13/2016	200.7/200.8	8.9	<0.002	<0.006	<0.006	9.6	0.0004	1.7	<0.005	0.016	0.000	0.003
	6/8/2016	200.7/200.8	7.5	<0.002	<0.006	<0.006	8.3	0.0013	1.2	<0.005	0.006	0.000	<0.01
	3/3/2016	200.7/200.8	11	<0.002	<0.006	<0.006	11	0.0004	1.7	<0.005	0.007	0.000	0.009
	11/9/2015	200.7/200.8	30	<0.002	<0.006	<0.006	29	<0.005	3.9	<0.005	<0.02	<0.005	<0.01
MKTTF-39	8/23/2015	200.7/200.8	44	<0.002	<0.006	<0.006	45	<0.0025	5.8	<0.005	<0.01	<0.0025	0.023
	6/10/2015	200.7/200.8	67	<0.002	<0.006	<0.006	60	<0.01	8.8	<0.005	<0.01	<0.01	0.012
	3/16/2015	200.7/200.8	21	<0.002	<0.006	<0.006	31	<0.005	7.0	<0.005	0.011	0.010	<0.01

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS														
STANDARDS														
WQCC 20NMAC 6.2.3103			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	0.005	0.1	NE	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
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 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

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.

Table 2
Groundwater Analyses Summary

PARAMETERS														
STANDARDS	Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (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	NE	0.00012	NE	NE	0.0556	NE	NE	NE	NE	0.075	NE	0.354	0.288
EPA RSL for Tap Water (MAY 2016)														
Well ID	DATE SAMPLED	METHOD	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29
PARAMETERS														
MKTf-4	11/2/2016	8270C	<0.01	<0.02	<0.02	6.8E-03	<0.02	0.02	0.007	<0.01	<0.01	0.004	0.008	0.008
	9/11/2016	8270C	<0.01	<0.02	<0.02	3.6E-03	<0.01	0.018	0.005	0.003	<0.01	<0.01	0.005	0.004
	6/9/2016	8270C	<0.05	<0.1	<0.1	0.018	<0.01	0.018	0.028	<0.01	<0.01	<0.05	<0.05	<0.05
	2/29/2016	8270C	<0.01	<0.02	<0.02	<0.01	0.026	0.026	<0.01	<0.01	<0.01	<0.01	0.008	<0.01
	11/3/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.019	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	8/18/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.021	0.021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	6/4/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.015	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/16/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.014	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	11/13/2014	8270C	<0.01	<0.02	<0.02	<0.01	0.017	0.017	<0.01	<0.01	<0.01	<0.01	0.059	<0.01
	9/24/2014 ^a	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	0.13	<0.01
	6/4/2014	8270C	<0.01	<0.02	<0.02	<0.01	0.011	0.011	<0.01	<0.01	<0.01	<0.01	0.14	<0.01
	4/11/2014	8270C	<0.01	<0.02	<0.02	<0.01	0.017	0.017	<0.01	<0.01	<0.01	<0.02	0.12	<0.01
	11/2/2016	8270C	<0.01	<0.02	<0.02	0.007	0.010	0.010	0.007	<0.01	<0.01	<0.01	0.023	0.003
	9/11/2016	8270C	<0.01	<0.02	<0.02	0.004	0.011	0.011	0.005	<0.01	<0.01	<0.01	0.023	0.012
MKTf-9	6/9/2016	8270C	<0.01	<0.02	<0.02	0.004	0.009	0.009	0.005	0.046	0.069	5.1E-03	0.018	0.006
	2/29/2016	8270C	<0.01	<0.02	<0.02	<0.01	0.012	0.012	<0.01	<0.01	<0.01	<0.01	0.032	<0.01
	11/3/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.013	0.013	<0.01	<0.01	<0.01	<0.01	0.011	<0.01
	8/18/2015	8270C	<0.10	<0.02	<0.02	<0.01	0.016	0.016	<0.01	0.08	<0.01	<0.01	0.023	<0.01
	6/4/2015	8270C	<0.01	<0.02	<0.02	<0.01	0.01	0.01	<0.01	0.036	<0.01	<0.01	0.012	<0.01
	3/16/2015	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	0.027	<0.01	<0.01	<0.01	<0.01
	11/14/2014	8270C	<0.01	<0.02	<0.02	0.011	<0.01	<0.01	<0.01	0.049	<0.01	<0.01	0.021	<0.01
	9/18/2014	8270C	<0.01	<0.02	<0.02	<0.01	0.01	0.01	<0.01	0.031	<0.01	<0.02	0.018	<0.01
	6/5/2014	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	0.01	<0.01	0.058	<0.01	<0.02	0.041	<0.01
	4/14/2014	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	0.046	<0.01	<0.02	0.031	<0.01
	11/2/2016	8270C	<0.05	0.056	<0.05	0.034	0.014	<0.05	0.037	<0.05	0.047	0.13	0.15	0.079
	9/11/2016	8270C	0.06	0.05	0.006	0.004	<0.01	0.004	0.005	<0.01	0.051	0.69	0.15	0.26
	6/9/2016	8270C	<0.05	<0.1	<0.1	0.018	<0.01	0.056	0.025	<0.01	0.057	0.82	0.15	0.36
	2/29/2016	8270C	0.042	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.077	1.0	0.2	0.67
MKTf-10	11/3/2015	8270C	0.029	<0.02	<0.02	<0.01	<0.01	<0.01	0.093	<0.01	0.06	0.28	0.14	0.24
	8/18/2015	8270C	0.06	<0.02	<0.02	<0.01	<0.01	<0.01	0.085	<0.01	0.14	0.45	0.25	0.41
	6/4/2015	8270C	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	0.100	<0.01	0.066	0.35	0.18	0.28
	3/16/2015	8270C	0.067	<0.02	<0.02	<0.01	<0.01	<0.01	0.110	<0.01	<0.01	0.53	0.17	0.42
	11/14/2014	8270C	0.054	<0.02	<0.02	0.01	<0.01	<0.01	0.063	<0.01	0.046	0.33	0.099	0.29
	9/18/2014	8270C	0.073	<0.02	<0.02	<0.01	<0.01	<0.01	0.090	<0.01	0.036	0.32	0.098	0.25
	6/6/2014	8270C	0.075	<0.02	<0.02	<0.01	<0.01	<0.01	0.110	<0.01	0.04	0.49	0.14	0.37
	4/11/2014	8270C	0.075	<0.023	<0.023	<0.012	<0.012	<0.012	0.120	<0.012	0.042	0.3	0.14	0.061
	11/2/2016	8270C	0.007	<0.02	<0.02	0.006	0.003	0.002	0.007	<0.01	0.015	0.096	0.034	0.04
	9/11/2016	8270C	0.009	<0.02	<0.02	0.004	<0.01	<0.01	0.004	<0.01	0.012	0.13	0.03	0.049
	6/9/2016	8270C	0.004	<0.02	<0.02	0.003	<0.01	<0.01	0.005	<0.01	0.015	0.088	0.033	0.045
	2/29/2016	8270C	0.011	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	0.084	0.038	0.029
	11/3/2015	8270C	0.038	<0.02	<0.02	<0.01	<0.01	<0.01	0.110	<0.01	0.022	0.3	0.073	0.09
	8/18/2015	8270C	<0.01	<0.029	<0.029	<0.01	<0.01	<0.01	0.015	<0.01	0.01	0.049	0.017	0.027
MKTf-11	6/4/2015	8270C	0.046	<0.02	<0.02	<0.01	<0.01	<0.01	0.140	<0.01	0.02	0.3	0.07	0.053
	3/16/2015	8270C	0.044	<0.02	<0.02	<0.01	<0.01	<0.01	0.110	<0.01	0.025	0.27	0.069	0.052
	11/13/2014	8270C	<0.01	<0.02	<0.02	0.014	<0.01	<0.01	0.012	<0.01	0.015	0.07	0.031	0.02
	9/24/2014 ^a	8270C	0.027	<0.02	<0.02	<0.10	<0.01	<0.01	0.190	<0.01	0.024	0.35	0.067	0.078
	6/5/2014	8270C	0.025	<0.02	<0.02	<0.01	<0.01	<0.01	0.092	<0.01	0.011	0.18	0.046	0.032
	4/11/2014	8270C	0.023	<0.02	<0.02	<0.01	<0.01	<0.01	0.078	<0.01	0.012	0.16	0.038	0.021

Table 2
Groundwater Analyses Summary

STANDARDS		PARAMETERS																							
		Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103 40 CFR 141.62 MCL		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
		NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	NMED Tap Water (March 2017)	0.535	NE	0.00012	NE	NE	0.0556	NE	NE	NE	NE	0.00482	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
	EPA RSL for Tap Water (MAY 2016)	0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	0.0011	0.036	0.93	0.93	0.0002	0.000041	NE	5.8	0.12	0.02
	WellID	DATE SAMPLED	METHOD																						
MKTf-15	11/2/2016	8270C	<0.05		0.065		0.035	0.013	<0.05	0.036			<0.05	0.079	<0.05	<0.05	<0.05	0.46	0.55	0.059		<0.05	2		
	9/11/2016	8270C	<0.01		0.011		3.1E-03		0.004	0.005		0.017	0.230	<0.01	0.013	0.014	1.8	2.6	0.053		<0.01	5.8			
	9/17/2014	8270C	<0.01		<0.02		<0.01		0.001				0.013	<0.01	0.035	0.033	0.024	<0.01	0.048		<0.01	<0.01			
	6/5/2014	8270C	<0.01		0.023		<0.01		<0.01				0.013	<0.01	0.021	0.021	0.028	<0.01	0.05		<0.01	<0.01			
	4/10/2014	8270C	<0.012		<0.025		<0.012		<0.012				0.016	<0.012	0.02	0.021	0.043	<0.012	0.048		<0.012	0.015			
	11/3/2016	8270C	<0.01		0.038		0.007	0.003	<0.01	0.007			0.059	0.004	0.04	0.037	0.026	0.003	0.13		<0.01	0.18			
	9/12/2016	8270C	0.006		0.024		0.004		0.004	0.004			0.084	<0.01	0.046	0.051	0.071	<0.01	0.13		<0.01	0.14			
	6/9/2016	8270C	<0.05		<0.1		0.019		<0.05	0.025			0.083	<0.05	0.035	0.038	0.061	<0.05	0.1		<0.05	0.17			
	2/29/2016	8270C	0.011		<0.02		<0.01		<0.01				0.091	<0.01	0.033	0.042	0.079	<0.01	0.11		<0.01	0.03			
	11/3/2015	8270C	<0.01		<0.02		<0.01		<0.01				0.120	<0.01	0.035	0.046	0.081	<0.01	0.13		<0.01	0.057			
MKTf-16	8/23/2015	8270C	0.025		<0.02		<0.01		<0.01				0.130	<0.01	0.044	0.055	0.1	0.015	0.16		<0.01	0.042			
	6/8/2015	8270C	0.021		<0.02		<0.01		<0.01				0.180	<0.01	0.042	0.046	0.12	<0.1	0.14		<0.01	0.048			
	3/16/2015	8270C	0.02		<0.02		<0.01		<0.01				0.190	<0.01	0.045	0.053	0.15	<0.01	0.15		<0.01	0.031			
	11/18/2014	8270C	0.018		<0.02		0.014		<0.01				0.080	<0.01	0.047	0.051	0.14	0.016	0.13		<0.01	0.038			
	9/17/2014	8270C	0.024		<0.02		<0.01		<0.01				0.180	<0.01	0.053	0.062	0.15	0.03	0.18		<0.01	0.031			
	6/16/2014 ¹	8270C	0.011		<0.02		<0.01		<0.01				0.170	<0.01	0.037	0.042	0.22	0.16	0.14		<0.01	0.42			
	4/10/2014	8270C	0.015		<0.02		<0.01		<0.01				0.200	<0.01	0.035	0.044	0.16	0.091	0.13		<0.01	0.09			
	11/8/2016	8270C	<0.01		<0.02		0.007	0.003	<0.01	0.007			<0.01	0.003	0.011	<0.01	<0.01	<0.01	7.7E-03		<0.01	0.0035			
	9/13/2016	8270C	<0.01		<0.02		0.004		<0.01	<0.01			0.004	<0.01	6.3E-03	<0.01	<0.01	<0.01	6.4E-03		<0.01	0.0029			
	6/10/2016	8270C	<0.01		<0.02		<0.01		<0.01	0.005				<0.01	0.026	<0.01	<0.01	<0.01	0.062		<0.01	0.0098			
MKTf-17	2/26/2016	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			
	11/3/2015	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			
	8/18/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01			
	6/8/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01			
	3/12/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01			
	11/18/2014	8270C	<0.01		<0.02		0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01			
	9/18/2014	8270C	<0.01		<0.02		<0.01		<0.01				<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01			
	6/16/2014	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01			
	4/9/2014	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	0.039			
	11/8/2016	8270C	<0.01		<0.02		0.007	0.003	<0.01	0.007			<0.01	0.007	0.057	0.02	<0.01	<0.01	0.018		0.004	<0.01			
MKTf-18	9/13/2016	8270C	<0.01		6.4E-03		<0.01		<0.01	<0.01			<0.01	0.049	0.006	0.049	0.02	<0.01	<0.01	0.014		0.004	<0.01		
	6/10/2016	8270C	<0.01		<0.02		<0.01		<0.01	0.005			<0.01	0.004	0.054	0.014	<0.01	<0.01	0.013		0.004	<0.01			
	2/26/2016	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	0.06	0.017	<0.01	<0.01	0.016		<0.01	<0.01			
	11/3/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	0.079	0.017	<0.01	<0.01	0.023		<0.01	<0.01			
	8/18/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	0.14	0.042	<0.01	<0.01	0.042		0.012	<0.01			
	6/8/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	0.077	0.013	<0.01	<0.01	0.029		<0.01	<0.01			
	3/17/2015	8270C	<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	0.1	0.028	<0.01	<0.01	0.032		<0.01	<0.01			
	11/18/2014	8270C	<0.01		<0.02		0.012		<0.01				<0.02	<0.01	0.11	0.036	<0.01	<0.01	0.055		<0.01	<0.01			
	9/18/2014	8270C	<0.01		<																				

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS																							
			Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WellID	DATE SAMPLED	METHOD																								
MKTF-20	11/3/2016	8270C		<0.05		0.061		0.035	0.014	<0.05	0.036		<0.05	0.430	<0.05	0.05	0.038	0.16	0.089	0.11	<0.1	<0.05	0.13		<0.05	
	9/12/2016	8270C		<0.1		0.13		0.036		<0.1	0.038		0.029	0.390	<0.1	0.048	0.043	0.19	0.061	0.11		0.061		<0.1		
	6/9/2016	8270C		<0.05		<0.1		0.018		<0.05	0.025			0.230	<0.05	0.051	0.029	0.25	0.28	0.077		0.24		<0.05		
	3/1/2016	8270C		<0.01		<0.02		<0.01		<0.01				0.280	<0.01	0.036	0.023	0.096	<0.01	0.05		0.011		<0.01		
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01				0.230	<0.01	0.037	0.036	0.049	0.13	0.056		0.05		<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01				0.320	<0.01	0.045	0.037	0.21	0.36	0.13		0.21		<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.014		<0.01				0.610	<0.01	0.11	0.066	0.12	0.051	0.1		0.037		0.016		
4/11/2014	8270C		0.022		<0.026		<0.013		<0.013				0.130	<0.013	0.088	0.12	0.12	0.076	0.25		<0.013	<0.013				
MKTF-21	11/3/2016	8270C		<0.1		0.11		0.064	0.027	<0.1	0.081		<0.1	0.030	<0.1	<0.1	<0.1	<0.1	0.03	0.049	<0.2	<0.1	0.03		<0.1	
	9/12/2016	8270C		<0.1		0.063		0.056		<0.1	0.035		0.029	<0.1	<0.1	<0.1	<0.1	<0.1	0.42	<0.1		0.08		<0.1		
	3/1/2016	8270C		<0.01		0.036		<0.01		<0.01				0.006	<0.01	<0.01	<0.01	<0.01	0.12	<0.01		0.037		<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01				0.011	<0.01	<0.01	<0.01	<0.01	0.11	<0.01		0.035		<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	0.069	<0.01		0.038		<0.01		
	4/11/2014	8270C		<0.012		<0.025		<0.012		<0.012				0.100	<0.012	0.069	0.11	0.14	0.1	0.27		0.013		<0.01		
	11/8/2016	8270C		<0.01		8.3E-03		0.006		<0.01	0.007		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
9/13/2016	8270C		<0.01		8.4E-03		0.003		<0.01	<0.01		<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-34	6/10/2016	8270C		<0.01		8270C		0.003		<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	
	2/25/2016	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	
	11/3/2015	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	
	8/18/2015	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	
	6/8/2015	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	
	3/12/2015	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	
	11/17/2014	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	
9/24/2014	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		
4/9/2014	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		
MKTF-35	11/3/2016	8270C		<0.05		0.055		0.034	0.014	<0.05	0.034		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	
	9/13/2016	8270c		<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	
	6/10/2016	8270C		<0.01		<0.02		0.003		<0.01	0.006		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
	2/26/2016	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	
	11/3/2015	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	
	8/18/2015	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	
	6/4/2015	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	
3/17/2015	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		
11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01			<0.01	<0.01	<0.01	0.034	0.045	<0.01	<0.01	0.028		<0.01	0.036		<0.01		

Table 2
Groundwater Analyses Summary

PARAMETERS														
STANDARDS	Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)
	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	0.075	NE	NE	NE
	0.535	NE	0.00012	NE	NE	0.0556	NE	NE	NE	NE	0.00482	NE	0.354	0.288
EPA RSL for Tap Water (MAY 2016)														
Well ID	DATE SAMPLED	METHOD	0.013	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29
PARAMETERS														
MKTf-36	11/8/2016	8270C	<0.01	<0.02		0.007	0.003	0.006	0.008			<0.01	<0.01	0.008
	8/18/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.012
	6/4/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.013
	3/17/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.010
	11/21/2014	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
MKTf-37	11/3/2016	8270C	<0.01	0.019		0.008		<0.01	0.007		0.003	<0.01	<0.01	<0.01
	8/19/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.83
	6/4/2015	8270C	<0.01	<0.01		<0.01		<0.01				<0.01	<0.01	<0.01
	3/17/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.074
	11/21/2014	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	0.072
MKTf-38	11/1/2016	8270C	<0.01	8.7E-03		0.006	0.003	<0.01	0.008			<0.01	<0.01	<0.01
	9/13/2016	8270C	<0.01	0.0046		0.003		<0.01	<0.01			<0.01	<0.01	<0.01
	6/8/2016	8270C	<0.01	<0.02		0.003		<0.01	0.005			<0.01	<0.01	<0.01
	2/29/2016	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
	11/9/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
MKTf-39	8/24/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
	6/10/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
	3/16/2015	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
	11/21/2014	8270C	<0.01	<0.02		<0.01		<0.01				<0.01	<0.01	<0.01
	11/1/2016	8270C	<0.01	0.016		0.007		0.016	0.007	0.003		<0.01	<0.01	0.009
MKTf-39	9/13/2016	8270C	<0.01	0.012		0.003		0.016	<0.01	0.003		<0.01	<0.01	0.008
	6/8/2016	8270C	<0.05	<0.1		0.019		0.026	<0.01	0.003		0.014	<0.05	<0.05
	3/3/2016	8270C	<0.01	<0.02		<0.01		0.028	0.025				<0.05	0.013
	11/9/2015	8270C	<0.01	<0.02		<0.01		0.021					<0.01	0.013
	8/23/2015	8270C	<0.01	<0.02		<0.01		0.025					<0.01	0.010
	6/10/2015	8270C	<0.01	<0.02		<0.01		0.026					<0.01	<0.01
	3/16/2015	8270C	<0.01	<0.02		<0.01		0.011					<0.01	<0.01
	11/18/2014	8270C	<0.01	<0.02		0.012		0.021					<0.01	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WOCC 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

Table 3
Marketing Tanks Records

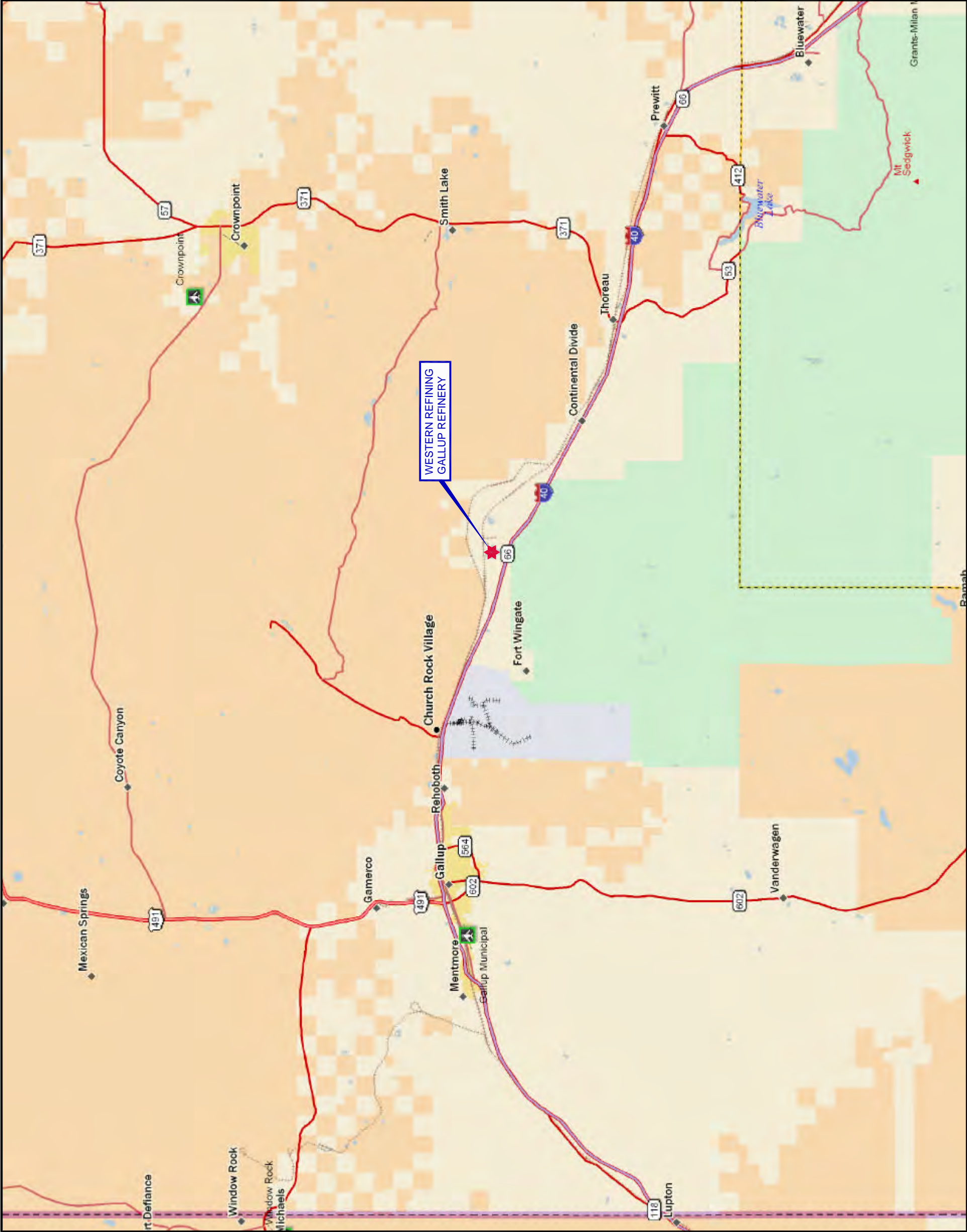
TANK NUMBER	TYPE OF TANK	YEAR BUILT	ROOF TYPE	ACTUAL CAPACITY	TANK DIAMETER	TANK HEIGHT/ LENGTH	PRODUCT
MKT-TK-01	VERT. STEEL	1965	CFRT	3000 bbl	30'-0"	24'-0"	ULSD
MKT-TK-02	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-03	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	89 OCTANE
MKT-TK-04	VERT. STEEL	1970	IFRT	3800 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-05	VERT. STEEL	1963	CFRT	1800 bbl	25'-0"	28'-0"	ETHANOL
MKT-TK-06	VERT. STEEL	1963	IFRT	1800 bbl	21'-6"	28'-0"	ETHANOL
MKT-TK-07	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	NEW-OUT OF SERVICE
MKT-TK-08	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	ULSD SALES
TK-1001	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	DIESEL
TK-1002	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	GASOLINE
TK-912	HORIZONTAL	unknown	FLATHEAD	8,000 gal	8'-0"	21'-0"	OUT OF SERVICE
TK-913	HORIZONTAL	unknown	FLATHEAD	8,000 gal	10'-0"	15'-0"	OUT OF SERVICE

CFRT - closed floating roof tank
IFRT - internal floating roof tank
ULSD - ultra low sulfur diesel

bbl - barrel
gal - gallon

Figures

- Figure 1 Site Location Map**
 - Figure 2 AOC 35 Map**
 - Figure 3 Potentiometric Map**
 - Figure 4 Benzene Concentration Map**
 - Figure 5 MTBE Concentration Map**
 - Figure 6 Proposed Sampling Locations**
-
-




PROJ. NO.: Western Refining DATE:07/13/14 FILE:WestRef-B198

FIGURE 1
SITE LOCATION MAP
GALLUP REFINERY

DiSorbo Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759




Aerial Map Source: Google Map, 3/18/2016.



MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 07/23/19 | FILE: Mathon-dB180

FIGURE 2
AOC 35 MAP








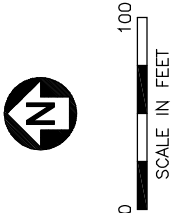
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

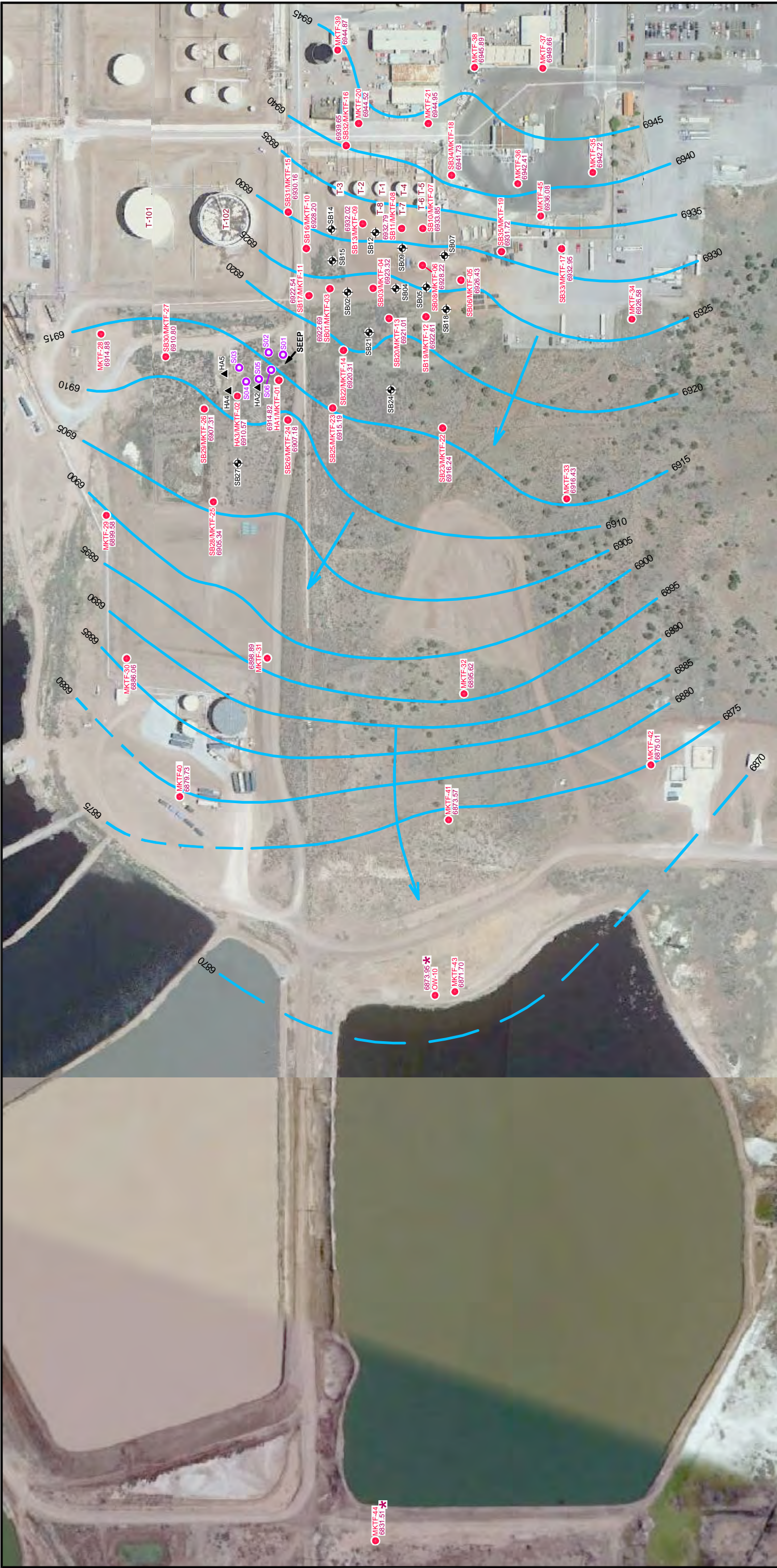


QUADRANGLE LOCATION

LEGEND

-  AOC 35 LOCATION
-  SB01
-  TEMPORARY WELL LOCATION (PLUGGED)
-  MKTF-34
-  MONITORING WELL LOCATION (PERMANENT WELL)





Aerial Map Source: Google Map, 01/05/2014.

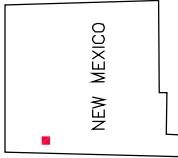


PROJ. NO.: Western Refining DATE:05/28/15 FILE:WestRef--dB34

LEGEND

- SB01 TEMPORARY WELL LOCATION (PLUGGED)
- HA1 HAND AUGER LOCATION (PLUGGED)
- S01 TEMPORARY SUMP
- MONITORING WELL LOCATION (PERMANENT WELL)

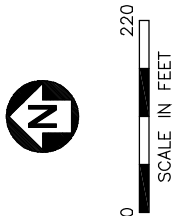
- 6930 POTENTIOMETRIC CONTOUR (FT) (5 FT INTERVAL)
- 6875.01 GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC SURFACE MEASURED RELATIVE TO MEAN SEA LEVEL (MARCH 2015)
- * MEASUREMENT NOT USED IN CONTOURING



QUADRANGLE LOCATION

FIGURE 3
POTENTIOMETRIC MAP
MARCH 2015

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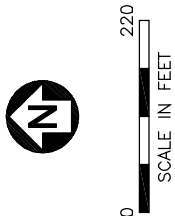




Aerial Map Source: Google Map, 01/05/2014.

LEGEND

- SB01: Temporary Well Location (Plugged)
- S01: Temporary Sump
- Red dot: Monitoring Well Location (Permanent Well)
- 3.3: Benzene Concentration (mg/l)
- SPH: Screening Level = 0.005 mg/l
- Red dashed line: Separate Phase Hydrocarbon
- Red solid line: Isocontour of Benzene Concentration (mg/l)



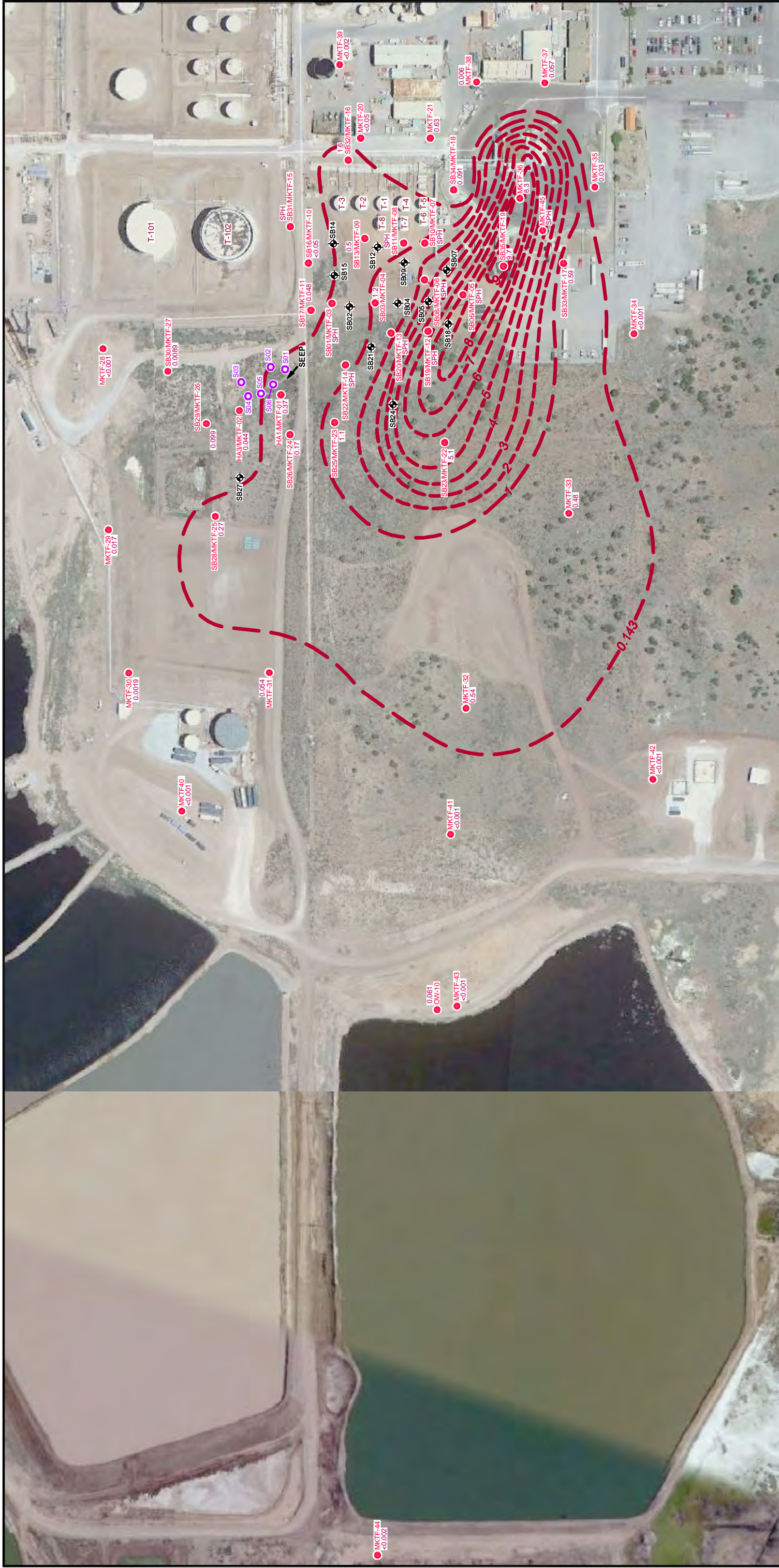
QUADRANGLE LOCATION



PROJ. NO.: Western Refining DATE:06/30/15 FILE:WestRef-bb41

FIGURE 4
BENZENE
CONCENTRATION MAP
MARCH 2015

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Austin, Texas 78759



Aerial Map Source: Google Map, 01/05/2014.



GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 06/30/15	FILE: WestRef - bB42
-----------------------------	----------------	----------------------

FIGURE 5
MTBE

CONCENTRATION MAP
MARCH 2015



QUADRANGLE LOCATION




A vertical scale bar labeled "SCALE IN FEET". It has a black segment at the bottom, followed by a white segment, then a black segment, and finally a white segment at the top. The number "0" is at the bottom, and "220" is at the top.

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Aerial Map Source: Google Map, 3/18/2016.




MARATHON PETROLEUM COMPANY
GALLUP REFINERY

PROJ. NO.: Marathon | DATE: 07/21/19 | FILE: Mathon--dB181

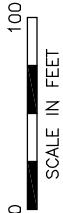
FIGURE 6

PROPOSED SAMPLING LOCATIONS



8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

QUADRANGLE LOCATION



LEGEND

- PROPOSED SOIL BORING LOCATION
- PROPOSED WELL LOCATION
- TEMPORARY WELL LOCATION (PLUGGED)
- MONITORING WELL LOCATION (PERMANENT WELL)



Appendix A

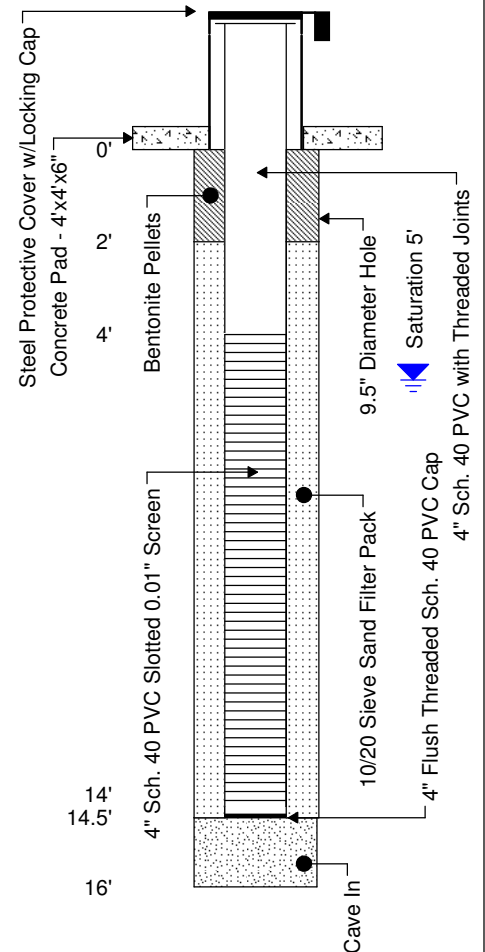
Boring Logs

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.346' W 108°25.782'; Boring ID - HA1

Total Depth: 16' bgl
Ground Water: Saturated @ 5' bgl
Elev., TOC (ft. msl): 6920.67
Elev., PAD (ft. msl): 6918.28
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,864.41 **E** 2,545,561.73

Well No.: MKTF-01
Start Date: 11/14/2013
Finish Date: 11/14/2013

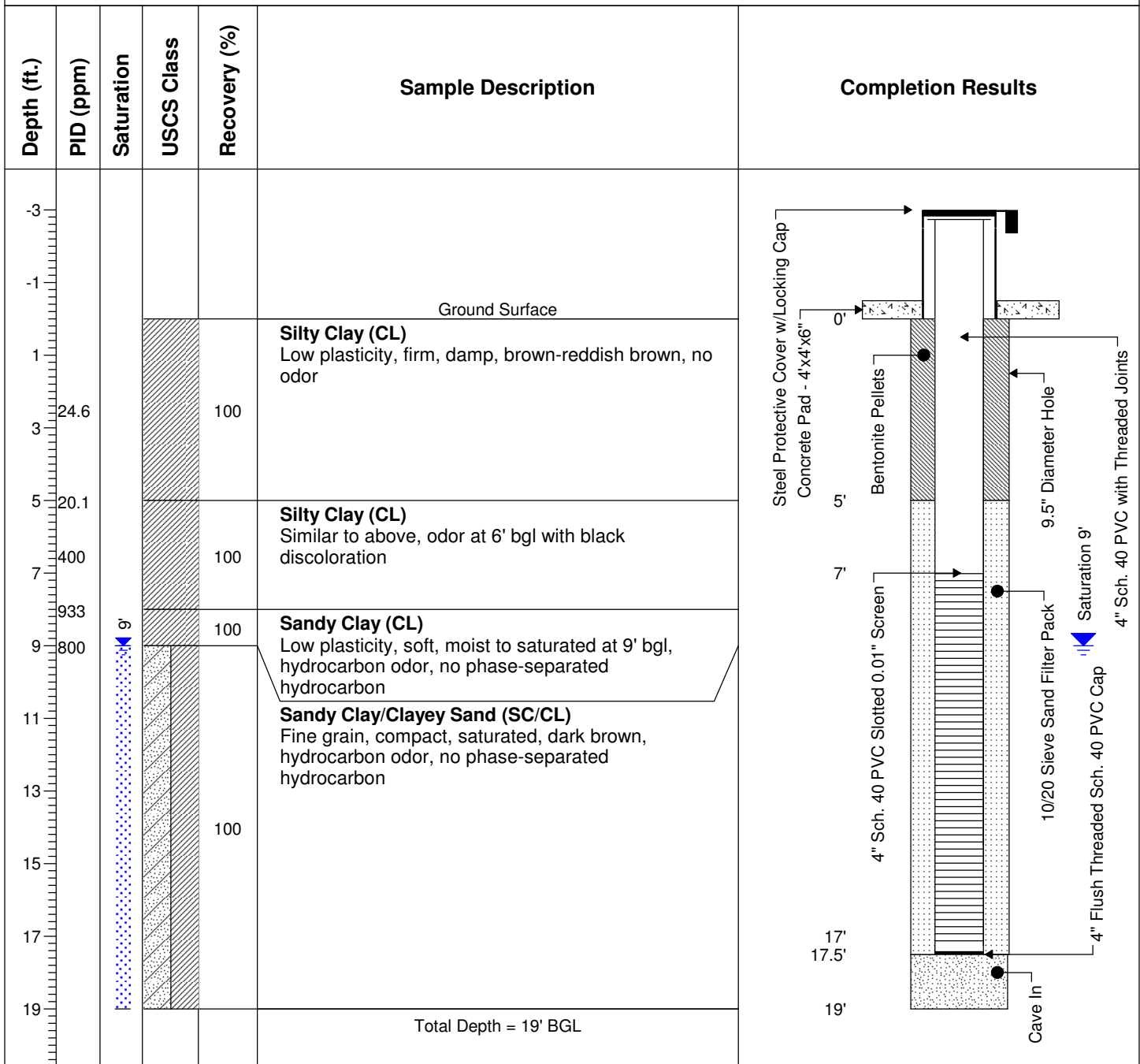
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1					Ground Surface	
3				100	Silty Clay (CL) Low plasticity, soft, damp, reddish brown to brown, no odor	
5		5'				
7				100	Silty Clay/Clayey Silt (CL/ML) Low plasticity, very soft, moist to saturated, brown grading to black, gravelly, bio odor, no phase-separated hydrocarbon	
9						
11						
13						
15						
17					Total Depth = 16' BGL	
19						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.360' W 108°25.789'; Boring ID HA3

Total Depth: 19' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6917.45
Elev., PAD (ft. msl): 6915.00
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,946.93 **E** 2,545,530.46

Well No.: MKTF-02
Start Date: 11/14/2013
Finish Date: 11/14/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.328' W108°25.743'; Boring ID - SB01

Total Depth: 19' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6931.31
Elev., PAD (ft. msl): 6931.73
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,746.53 **E** 2,545,756.87

Well No.: MKTF-03
Start Date: 11/7/2013
Finish Date: 11/7/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	164			60	Fill (Silt/Sand) Fine grain, loose, dry to damp, brown, no odor	
3	423			40	Silty Clay (CL) Low plasticity, firm, damp, brown/reddish brown, no odor	
5	330			70	Silty Clay (CL) Similar to above, no odor	
7	75			90	Silty Clay (CL) Similar to above, sandy at base from 7.75-8.0' bgl, no odor	
9	326	8		90	Silty Clay (CL) Fine grain sand seams throughout, saturated, phase-separated hydrocarbon, hydrocarbon odor, clear phase-separated hydrocarbon poured out of split spoon	
11	312			90	Silty Clay (CL) Similar to above with sand seams, saturated with phase-separated hydrocarbon, hydrocarbon odor, dark brown	
13	368			80	Gravelly Sand (SW) Fine to medium to coarse grain, loose, saturated with phase-separated hydrocarbon, black, hydrocarbon odor	
15	700			60	Gravelly Sand (SW) Similar to above	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.328' W 108°25.743'; Boring ID - SB01

Total Depth: 19' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6931.31
Elev., PAD (ft. msl): 6931.73
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,746.53 **E** 2,545,756.87

Well No.: MKTF-03
Start Date: 11/7/2013
Finish Date: 11/7/2013

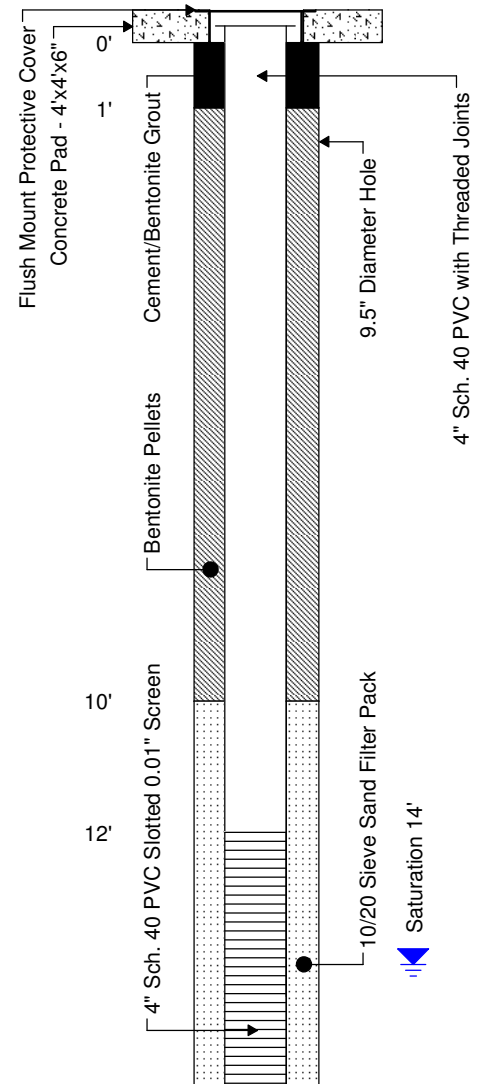
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17				10	Silty Sand/Silty Clay (SM/CL) Low plasticity, firm, moist, brown, faint odor, no phase-separated hydrocarbon	<p>4" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack Cave In 4" Flush Threaded Sch. 40 PVC Cap</p>
19	225			80	Silty Clay (CL) Poor recovery	
					Clay (CH) High plasticity, very dense, damp, light reddish brown, faint odor	
Total Depth = 19' BGL						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.310' W 108°25.742'; Boring ID SB03

Total Depth: 24' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6933.57
Elev., PAD (ft. msl): 6933.90
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,649.46 **E** 2,545,752.83

Well No.: MKTF-04
Start Date: 11/12/2013
Finish Date: 11/12/2013

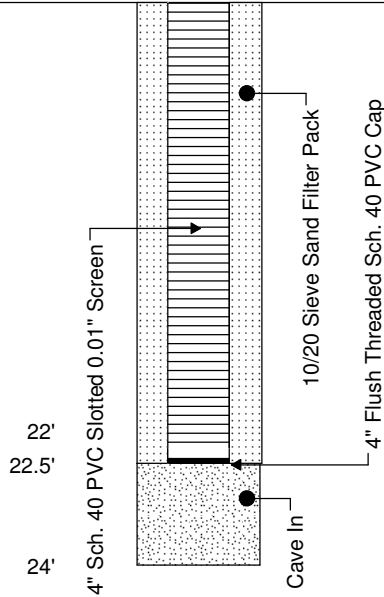
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	10.2			90	Fill (Silt/Gravel) Low plasticity, very dense, dry, light brown, no odor	
3	11.7			80	Fill (Silt/Gravel) Similar to above, black, dense at base, no odor	
5	16			90	Silty Clay (CL) Low plasticity, stiff, damp, reddish brown, no odor, calcareous	
7	26			90	Gravelly Sandy Clay (CL) Low plasticity, loose to firm, damp, brown, no odor	
9	708			70	Silty Clay (CL) Low plasticity, very soft, damp, reddish brown, hydrocarbon odor	
11	369			80	Clay (CH) High plasticity, firm, damp, reddish brown, hydrocarbon odor	
13	660			90	Sandy Clay/Clayey Sand (SC/CL) Low plasticity, fine grain, soft, damp, reddish brown, hydrocarbon odor	
15	85			90	Sandy Clay (SC) Similar to above, saturated sand seams, hydrocarbon odor, brown	



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.310' W 108°25.742'; Boring ID SB03

Total Depth: 24' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6933.57
Elev., PAD (ft. msl): 6933.90
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,649.46 **E** 2,545,752.83

Well No.: MKTF-04
Start Date: 11/12/2013
Finish Date: 11/12/2013

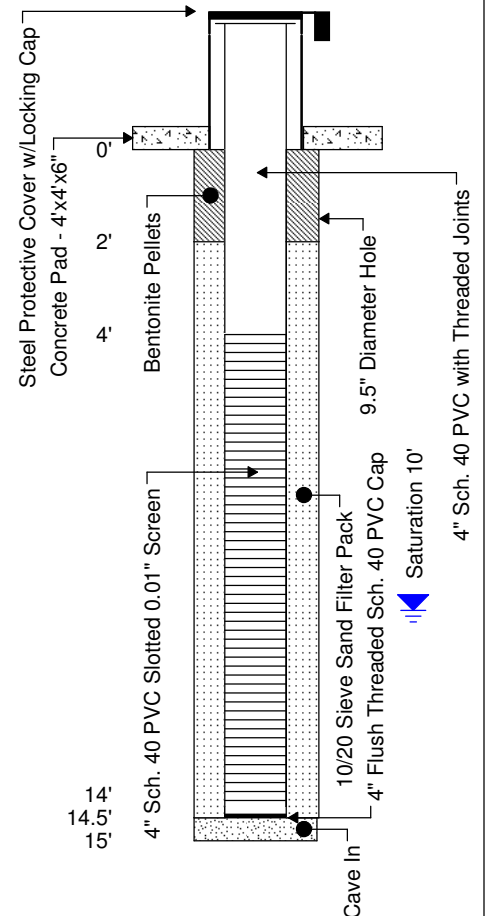
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	64			70	Sandy Clay (SC) Similar to above, moist to saturated, hydrocarbon odor, brown	 <p> 4" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 4" Flush Threaded Sch. 40 PVC Cap Cave In </p>
19	33			90	Sandy Clay (SC) Low plasticity, fine grain, soft, moist to saturated, light reddish brown, hydrocarbon odor, gravelly at base Silty Clay (CL) Low plasticity, stiff, damp, light reddish brown grading to yellowish/greenish gray, becomes more silty at base	
21						
23						
25					Total Depth = 24' BGL	
27						
29						
31						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.282' W 108°25.739'; Boring ID - SB06

Total Depth: 15' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6942.22
Elev., PAD (ft. msl): 6939.49
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,472.30 **E** 2,545,769.95

Well No.: MKTF-05
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3					Ground Surface	
1	52.6			60	Fill (Silty Clay/Gravel) Low plasticity, firm, damp, brown, faint odor	
3	180			100	Silty Clay (CL) Low plasticity, firm, damp, reddish brown, odor, calcareous	
5	224			90	Sandy Clay/Clayey Sand (CL/SC) Low plasticity, fine grain, damp, dark brown, hydrocarbon odor, sand seams present	
7	1202			90	Sandy Clay/Clayey Sand (CL) Similar to above	
9	1228			90	Sandy Silty Clay (CL) Low plasticity, soft, damp, dark brown, hydrocarbon odor	
11	1525			90	Sandy Clay (CL) Similar to above, with moist to saturated sand seams, hydrocarbon odor	
13	377			90	Clayey Sand (SC) Fine grain, loose to compact, saturated, hydrocarbon odor, dark brown	
15					Sandy Clay (CL) Low plasticity, soft to firm, moist, dark brown, hydrocarbon odor	
17					Total Depth = 15' BGL	
19						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'; Boring ID - SB08

Total Depth: 21' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): 6946.81
Elev., PAD (ft. msl): 6944.24
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,556.28 **E** 2,545,811.85

Well No.: MKTF-06
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3					Ground Surface	
1	15.9			70	Fill (Silt/Silty Clay) Low plasticity, stiff, dry, light brown, no odor	
3	228			60	Fill (Silty Clay/Gravel) Similar to above, dry, no odor	
5	177			60	Fill (Silty Clay) Similar to above, damp, no odor	
7	264			40	Fill (Silty Clay) Low plasticity, soft, damp, brown, gravel and wood debris	
9				--	No recovery	
11	90			10	Fill (Silty Clay/Gravel) Similar to above	
13	660			100	Sandy Silty Clay (CL) Low plasticity, soft, damp to moist at base, brown, hydrocarbon odor	
15						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'; Boring ID - SB08

Total Depth: 21' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): 6946.81
Elev., PAD (ft. msl): 6944.24
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,556.28 **E** 2,545,811.85

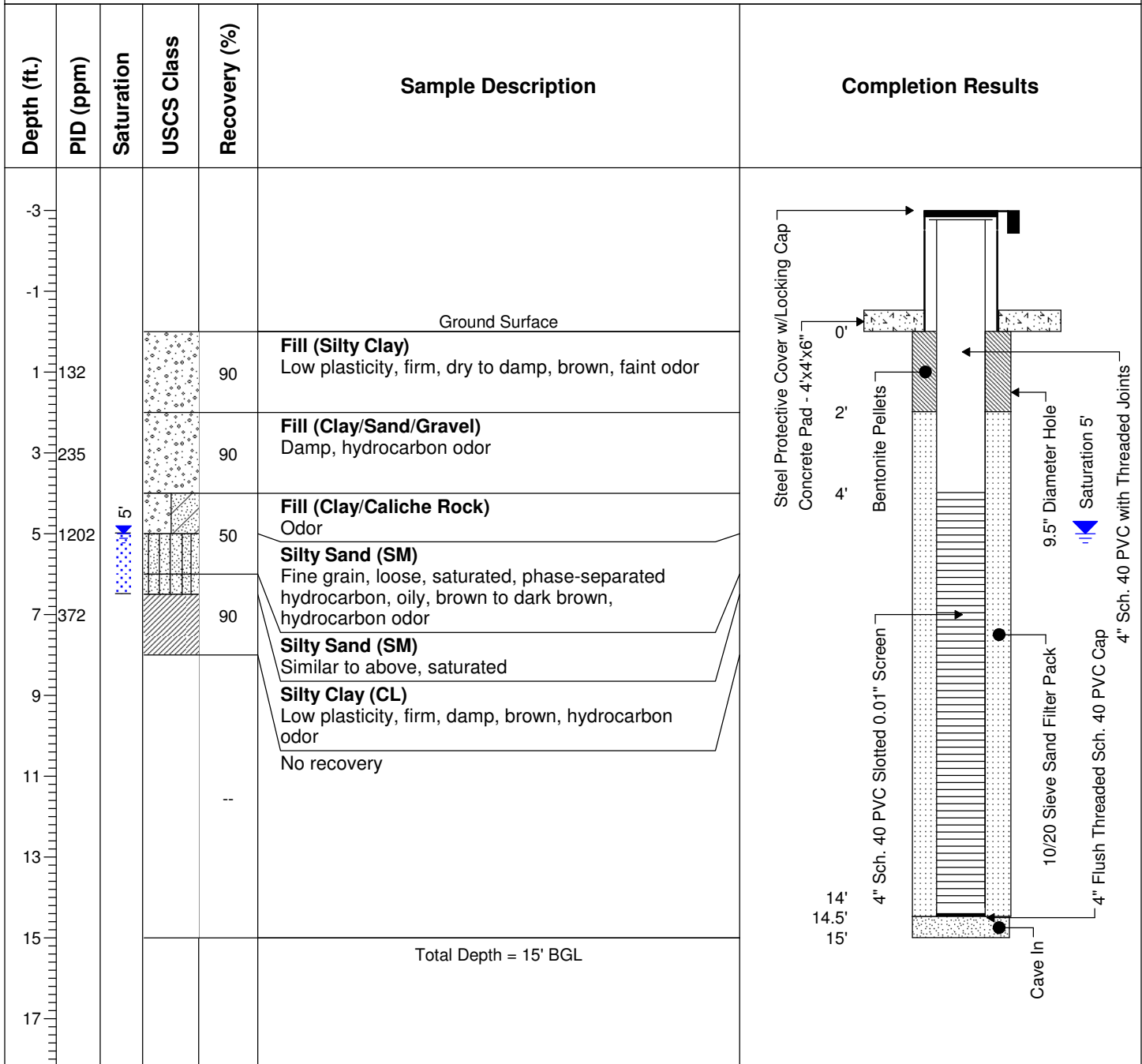
Well No.: MKTF-06
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
1115		17.5'		100	Sandy Silty Clay (CL) Similar to above, moist, oily, hydrocarbon odor	<p>20' 20.5' 21'</p> <p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Cave In</p> <p>4" Flush Threaded Sch. 40 PVC Cap</p> <p>Saturation 17.5'</p>
17				100	Gravelly Sandy Clay (CL) Low plasticity, firm, moist, oily, 1" gravel, strong hydrocarbon odor	
19				100	Clayey Gravel Sand (SC) Fine to medium grain, loose, saturated, phase-separated hydrocarbon present, black, hydrocarbon odor	
21				100	Sandy Clay (CL) Low plasticity, firm, moist, black hydrocarbon odor	
Total Depth = 21' BGL						
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.710'; Boring ID - SB10

Total Depth: 15' bgl
Ground Water: Saturated @ 5' bgl
Elev., TOC (ft. msl): 6947.18
Elev., PAD (ft. msl): 6944.40
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,555.11 **E** 2,545,885.42

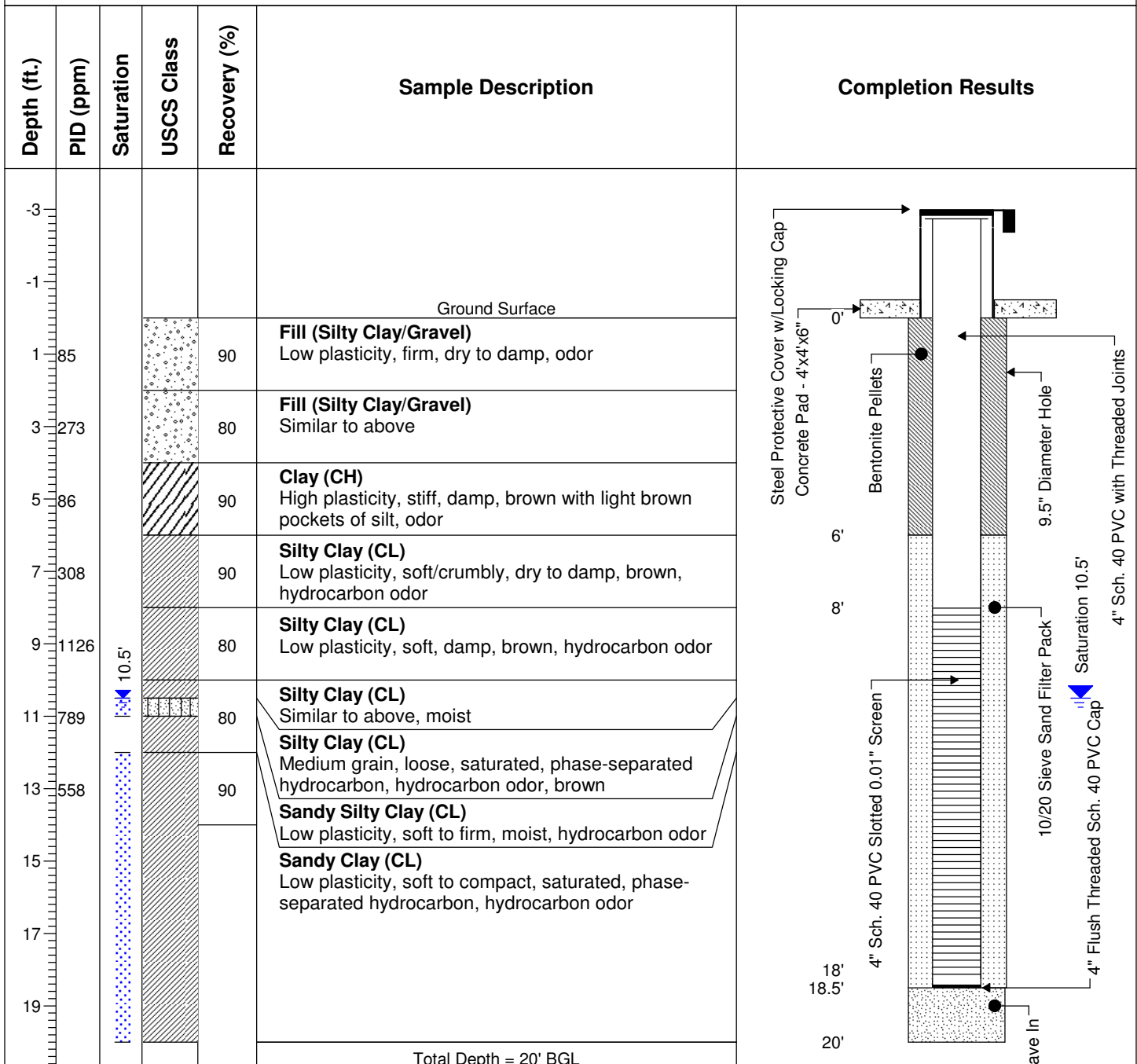
Well No.: MKTF-07
Start Date: 11/11/2013
Finish Date: 11/11/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.302' W 108°25.716'; Boring ID - SB11

Total Depth: 20' bgl
Ground Water: Saturated @ 10.5' bgl
Elev., TOC (ft. msl): 6947.09
Elev., PAD (ft. msl): 6944.02
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,598.94 **E** 2,545,885.02

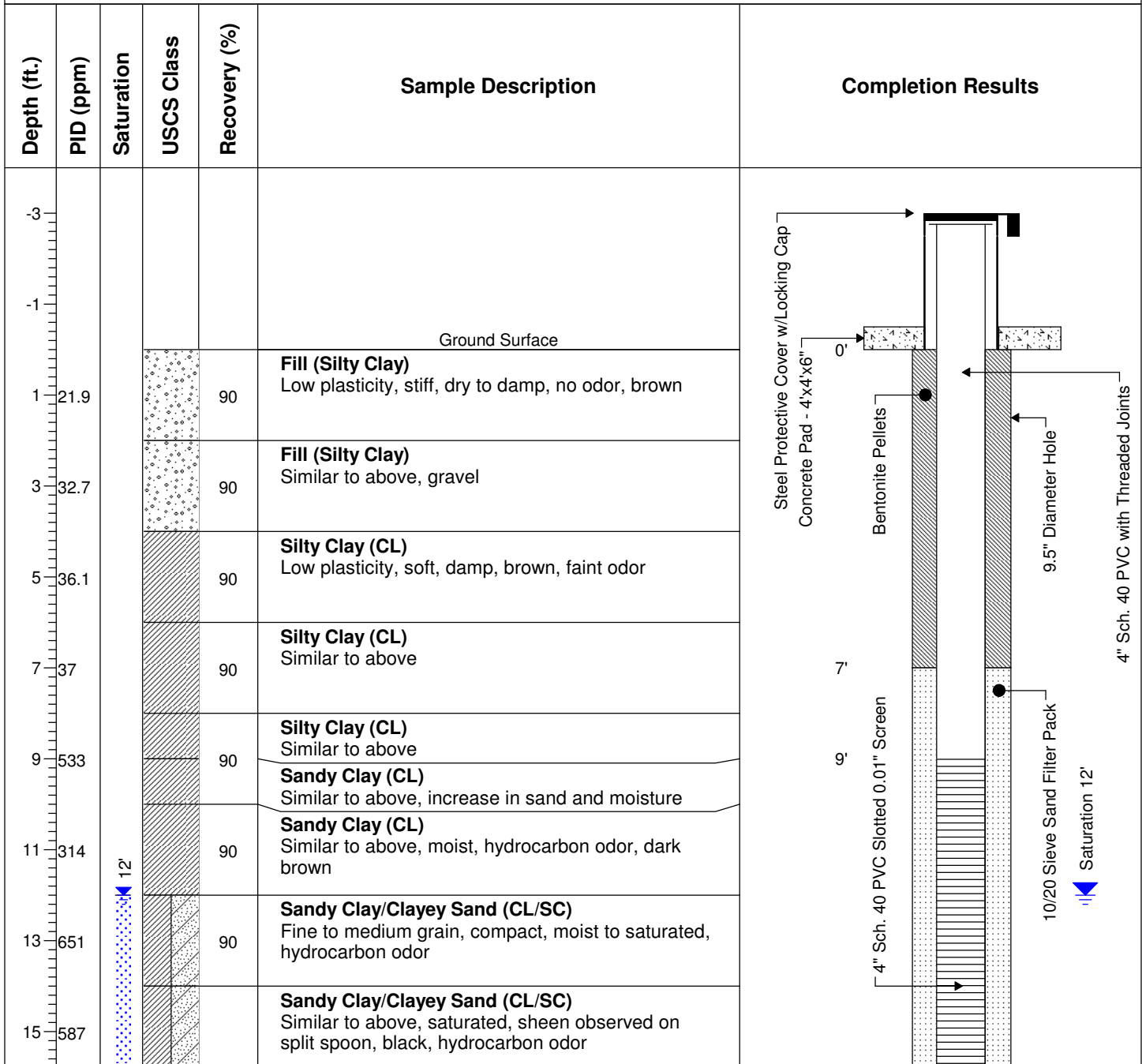
Well No.: MKTF-08
Start Date: 11/11/2013
Finish Date: 11/11/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.316' W 108°25.715'; Boring ID - SB13

Total Depth: 22' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6946.50
Elev., PAD (ft. msl): 6943.57
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,681.33 **E** 2,545,895.93

Well No.: MKTF-09
Start Date: 11/11/2013
Finish Date: 11/11/2013



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.316' W 108°25.715'; Boring ID - SB13

Total Depth: 22' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6946.50
Elev., PAD (ft. msl): 6943.57
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,681.33 **E** 2,545,895.93

Well No.: MKTF-09
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17				90	Sandy Clay/Clayey Sand (CL/SC) Fine to medium grain, compact, saturated, sheen observed on split spoon, black, hydrocarbon odor	<p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Cave In</p> <p>4" Flush Threaded Sch. 40 PVC Cap</p>
19					Total Depth = 22' BGL	
21						
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.724'; Boring ID SB16

Total Depth: 18' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6937.16
Elev., PAD (ft. msl): 6937.51
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,807.47 **E** 2,545,853.54

Well No.: MKTF-10
Start Date: 10/31/2013
Finish Date: 10/31/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	90			90	Fill (Silt/Gravel) Low plasticity, loose, dry, light brown	
3	14			90	Fill (Silty Clay/Gravel) Similar to above	
5	431			90	Silty Clay (CL) Low plasticity, stiff, dry, reddish brown, odor, calcareous	
7	448			60	Sand (SP) Fine grain, loose, dry, reddish brown, odor	
9	654	9		60	Sand (SP) Similar to above, saturated at 9' bgl, phase-separated hydrocarbon, hydrocarbon odor	
11	1559			90	Clayey Sand (SC) Fine grain, soft, saturated, phase-separated hydrocarbon, brown to black, hydrocarbon odor	
13	713			90	Clayey Sand/Sandy Clay (SC/CL) Low plasticity, firm to stiff, moist to saturated, hydrocarbon odor, dark brown	
15				90		
17						
19					Total Depth = 18' BGL	
21						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.739'; Boring ID - SB17

Total Depth: 19' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6931.34
Elev., PAD (ft. msl): 6931.61
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,806.93 **E** 2,545,754.77

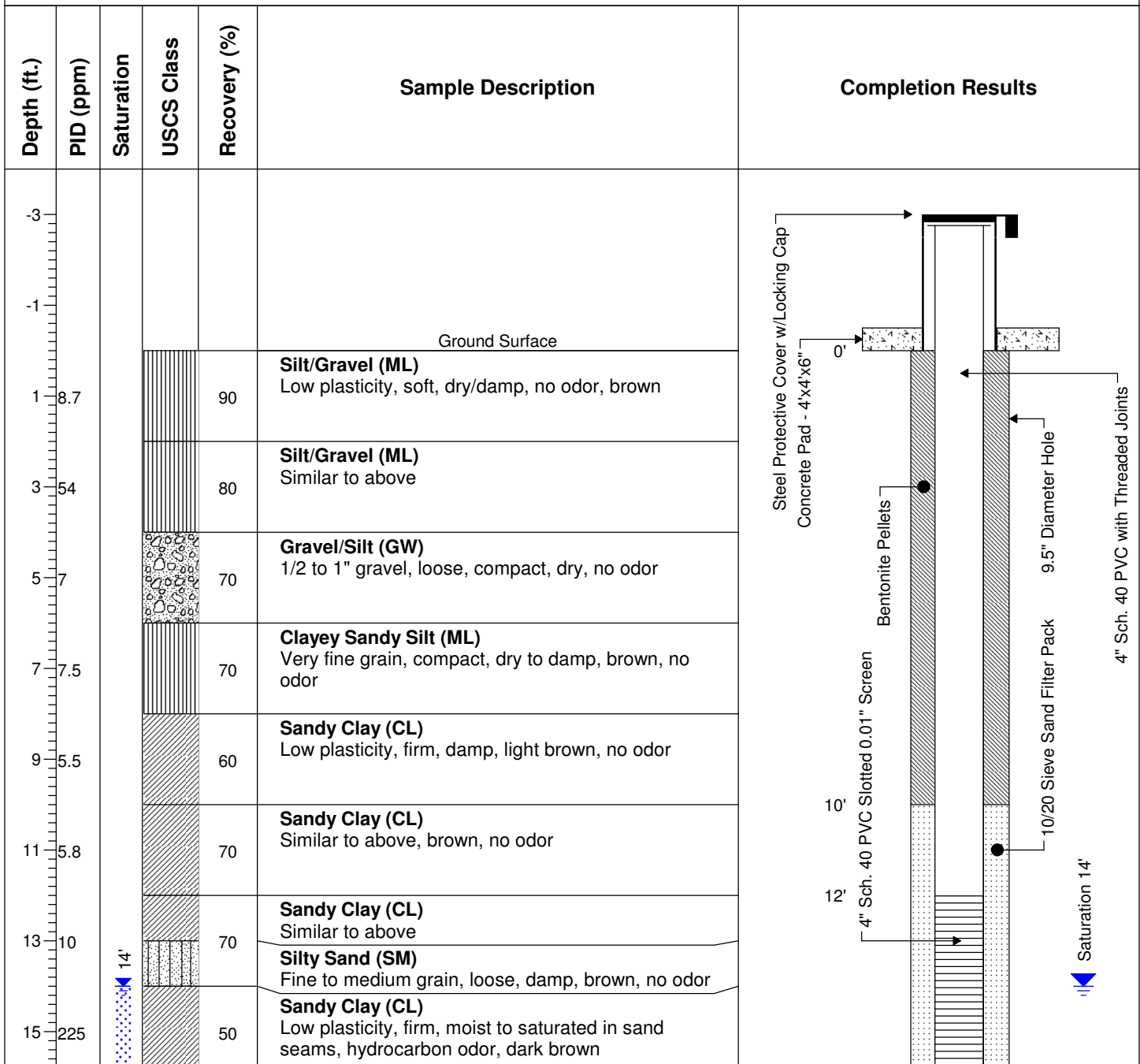
Well No.: MKTF-11
Start Date: 10/31/2013
Finish Date: 10/31/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	14			60	Fill (Silty Clay/Gravel) Low plasticity, stiff, dry, light brown	
3	36			70	Fill (Silty Clay) Similar to above	
5	80			90	Silty Clay (CL) Low plasticity, firm, damp, brown, calcareous	
7	125			80	Silty Clay (CL) Similar to above	
9	1259			80	Silty Clay (CL) Low plasticity, firm, damp, oily, hydrocarbon odor, dark brown	
11	860	12		70	Silty Clay (CL) Similar to above, moist, hydrocarbon odor, oily, phase-separated hydrocarbon	
13	1716			60	Sandy Clay (CL) Low plasticity, soft, moist to saturated, hydrocarbon odor, dark brown	
15	1050			70	Silty Sand (SM) Medium grain, loose, saturated, hydrocarbon odor, dark brown to black	
17				70	Sandy/Silty Clay (CL) Low plasticity, firm, saturated, dark brown to black, hydrocarbon odor	
19					Total Depth = 19' BGL	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'; Boring ID - SB19

Total Depth: 23' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6942.11
Elev., PAD (ft. msl): 6939.70
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,542.07 **E** 2,545,688.29

Well No.: MKTF-12
Start Date: 11/7/2013
Finish Date: 11/7/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'; Boring ID - SB19

Total Depth: 23' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6942.11
Elev., PAD (ft. msl): 6939.70
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,542.07 **E** 2,545,688.29

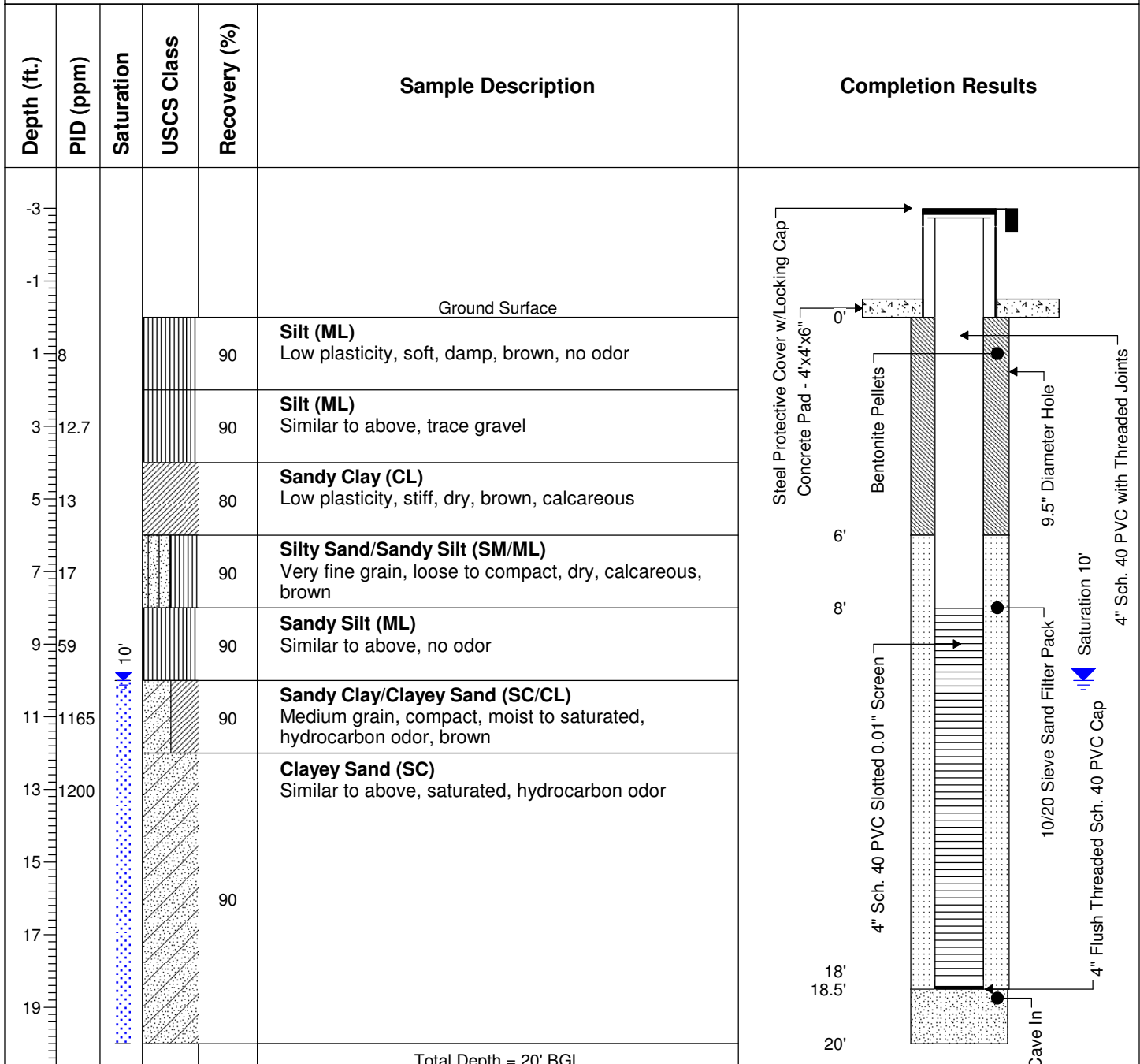
Well No.: MKTF-12
Start Date: 11/7/2013
Finish Date: 11/7/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	319			70	Sandy Clay (CL) Similar to above, moist, hydrocarbon odor	<p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch. 40 PVC Slotted 0.01" Screen</p> <p>4" Flush Threaded Sch. 40 PVC Cap</p> <p>Cave In</p>
19	400			--	Sandy Clay (CL) Similar to above, moist, hydrocarbon odor	
21	532			--	Sandy Clay/Clayey Sand (CL) Very fine grain, compact, moist to saturated, sheen observed in split spoon, hydrocarbon odor	
23					Total Depth = 23' BGL	
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.307' W 108°25.755'; Boring ID - SB20

Total Depth: 20' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6935.18
Elev., PAD (ft. msl): 6933.67
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,625.25 **E** 2,545,697.39

Well No.: MKTF-13
Start Date: 11/12/2013
Finish Date: 11/12/2013

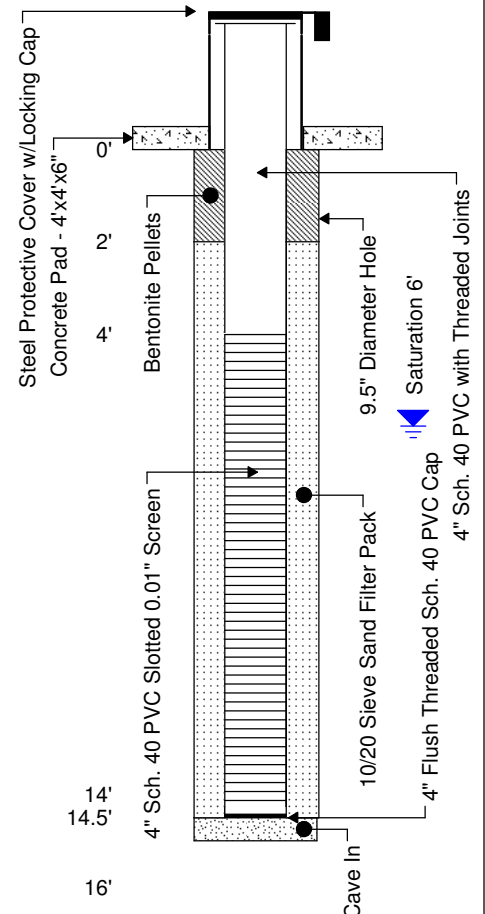


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.323' W 108°25.769'; Boring ID SB22

Total Depth: 15' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): 6928.02
Elev., PAD (ft. msl): 6925.65
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,719.43 **E** 2,545,625.96

Well No.: MKTF-14
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	18			20	Silty Clay (CL) Low plasticity, soft, damp, brown	
3	308			90	Silty Clay (CL) Similar to above, odor	
5	793	6'		90	Sandy Clay (CL) Low plasticity, firm, moist, oily, brown, trace gravel	
7	504			90	Clayey Sand (SC) Medium grain, loose to compact, saturated, phase-separated hydrocarbon, hydrocarbon odor, black	
9	760			90	Clayey Sand (SC) Similar to above	
11						
13						
15					Total Depth = 15' BGL	
17						
19						

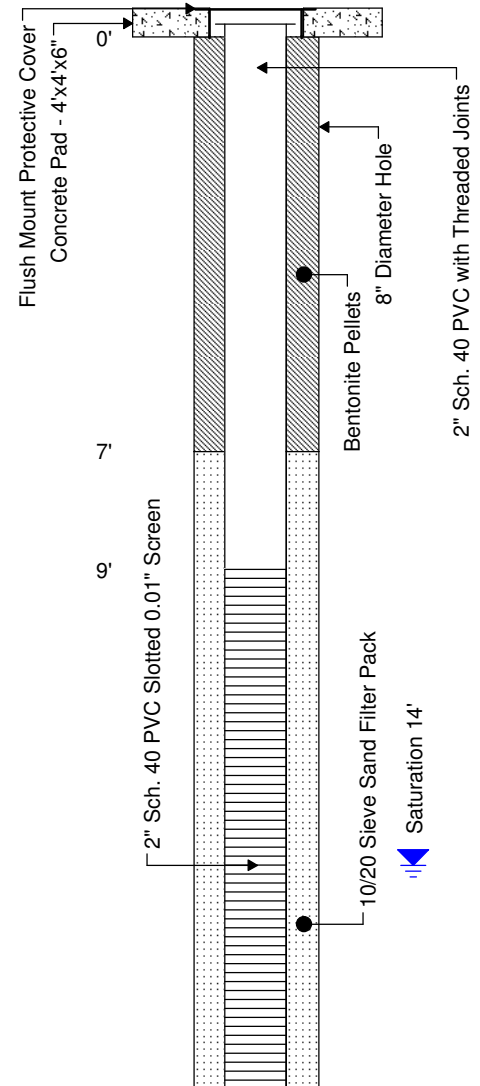


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.343' W 108°25.708'; Boring ID - SB31

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6943.48
Elev., PAD (ft. msl): 6943.74
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,845.57 **E** 2,545,934.58

Well No.: MKTF-15
Start Date: 10/29/2013 09:30
Finish Date: 10/29/2013 12:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	6.7			0	Fill (Clay and Gravel) No recovery	
3	14.6			90	Fill (Clay and Gravel) Reddish brown	
5				90	Fill (Clay and Gravel) Similar to above, no odor	
7	823			90	Fill (Silty Clay) Reddish brown, hydrocarbon odor	
9	1004			90	Silty Sandy Clay (CL) Low plasticity, firm to soft, damp, reddish brown, hydrocarbon odor	
11	293			70	Silty Sand (SM) Fine grain, compact, damp, light reddish brown, no odor	
13	221			80	Sand (SP) Similar to above, odor, moist to very moist	
15				80	Sand (SP) Fine to medium grain, loose, saturated, brown, hydrocarbon odor, phase-separated hydrocarbon present	
17				60	Sandy Silt (ML) Low plasticity, very soft, damp to moist, brown, hydrocarbon odor	



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.343' W 108°25.708'; Boring ID - SB31

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6943.48
Elev., PAD (ft. msl): 6943.74
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,845.57 **E** 2,545,934.58

Well No.: MKTF-15
Start Date: 10/29/2013 09:30
Finish Date: 10/29/2013 12:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
19				90	Sandy Silt/Silty Sand (ML/SM) Fine grain, loose to compact, moist to saturated, hydrocarbon odor, dark brown to black	<p>19' 19.33' 22'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>Bentonite Pellets</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
					Sandy Silt/Silty Sand (ML/SM) Similar to above, saturated in silty sand lenses, hydrocarbon odor	
21				90	Silty Clay (CL) Low plasticity, firm, damp, brown, faint odor	
					Silty Clay (CL) Similar to above, odor	
23					Total Depth = 22' BGL	
25						
27						
29						
31						
33						
35						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.323' W 108°25.680'; Boring ID - SB32

Total Depth: 16' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6950.58
Elev., PAD (ft. msl): 6951.00
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,718.14 **E** 2,546,068.55

Well No.: MKTF-16
Start Date: 11/7/2013 08:40
Finish Date: 11/7/2013 11:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	<p>Flush Mount Protective Cover Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Flush Threaded Sch. 40 PVC Cap 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Slot 40 PVC with Threaded Joints Saturation 9'</p>
1				0	Fill (Clay/Gravel) No recovery	
3	469			10	Fill (Clay/Gravel) Similar to above	
5				0	Fill (Clay/Gravel) Similar to above	
7				0	Fill (Clay/Gravel) Similar to above	
9	1445	9'		90	Fill (Clay/Gravel) Saturated at 9' bgl, black discoloration, hydrocarbon odor	
11	1255			90	Gravelly Sand (SW) High plasticity, firm, damp, dark brown, hydrocarbon odor	
13	1412			40	Clayey Sand (SC) Similar to above, hydrocarbon odor	
15	439			80	Clayey Sand (SC) Moderate plasticity, firm, damp, brown, hydrocarbon odor	
17					Total Depth = 16' BGL	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.248' W 108°25.724'; Boring ID - SB33

Total Depth: 25' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6945.76
Elev., PAD (ft. msl): 6945.79
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,268.93 **E** 2,545,850.73

Well No.: MKTF-17
Start Date: 11/14/2013 13:00
Finish Date: 11/14/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	<p>Flush Mount Protective Cover Concrete Pad - 4'x4'x6" 8" Diameter Hole Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 2" Sch. 40 PVC with Threaded Joints</p>
1				10	Fill (Asphalt/Base/Clay) Low plasticity, soft, damp, brown	
3	150			10	Fill (Clay) Similar to above	
5	157			90	Fill (Sand/Gravel/Clay) Moist to very moist, reddish brown, no odor	
7	92.1			20	Fill (Sand/Gravel/Clay) Similar to above, saturated, odor	
9	65.9			90	Clay (CH) High plasticity, firm, damp, faint odor, brown	
11	17			60	Clay (CH) Similar to above	
13	55			70	Clay (CH) High plasticity, soft, damp, dark brown and black, odor	
15	17.5			60	Clay (CH) Similar to above, faint odor	
17	11.3			10	Clay (CH) Similar to above, trace fine grain sand	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.248' W 108°25.724'; Boring ID - SB33

Total Depth: 25' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6945.76
Elev., PAD (ft. msl): 6945.79
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,268.93 **E** 2,545,850.73

Well No.: MKTF-17
Start Date: 11/14/2013 13:00
Finish Date: 11/14/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17.2		20'		10	Clay (CH) High plasticity, soft, damp, brown	<p>24' 24.33' 25'</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Saturation 20'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				70	Sandy Clay (CH) Moderate plasticity, soft, very moist to saturated in sand seams	
22				80	Silty Clayey Gravel (GM) Compact to loose, medium grain sand to 1/4" gravel - angular, saturated, brown	
24				90	Clay (CH) Moderate plasticity, firm to stiff, damp, greenish gray	
Total Depth = 25' BGL						
26						
28						
30						
32						
34						
36						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1				--	Fill (Gravel and Silty Clay)	
3	1009			20	Fill (Gravel and Silty Clay) Similar to above, strong hydrocarbon odor, damp	
5	693			60	Fill (Gravel and Silty Clay) Similar to above	
7	1108			70	Fill (Silty Clay) Low plasticity, firm, damp, brown, gravel present, strong hydrocarbon odor	
9	901			90	Fill (Clay/Sand/Gravel) Similar to above, saturated, odor, sheen observed	
11	803			60	Clay (CH) High plasticity, stiff, damp, brown, hydrocarbon odor	
13	254			70	Clay (CH) Similar to above, very fine grain, sand in partings	
15	200			30	Clay (CH) Similar to above	
17				--	No recovery	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

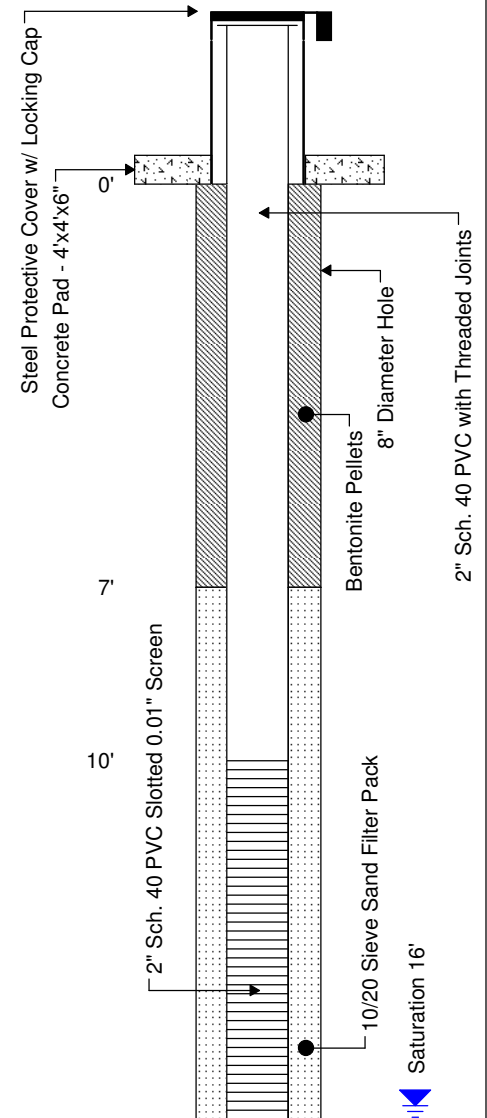
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
112				30	Clay (CH) High plasticity, firm, damp, brown, faint odor	<p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>10/20 Sieve Sand Filter Pack</p> <p>Saturation 23'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>27' 27.5'</p>
20				20	Clay (CH) Similar to above	
55						
22						
323				80	Clay (CH) Similar to above	
24					Sandy Clay/Clayey Sand (SC/CL) Fine grain, compact, very moist to saturated, brown, hydrocarbon present	
					Clayey Sand (SC) Similar to above, saturated	
26				90	Sandy Clay (CL) Low plasticity, firm, damp, hydrocarbon odor, greenish gray	
					Total Depth = 27' BGL	
28						
30						
32						
34						
36						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1				-	Fill (Asphate/Base/Clay) Odor	
3	1178			50	Fill (Silty Clay/Sandy Gravel) Brown, strong hydrocarbon odor	
5	1232			90	Fill (Silty Clay/Sandy Gravel) Similar to above, gray discoloration, strong hydrocarbon odor	
7	120			80	Clay (CH) High plasticity, stiff, damp, brown, odor, calcareous, sampling tube is oily	
9	375			70	Clay (CH) Similar to above, odor, oily	
11	601			70	Silty Sandy Clay (CL) Moderate plasticity, firm, damp, brown, hydrocarbon odor, sampling tube is oily	
13	1279			70	Sandy Clay (CL) Low plasticity, soft, damp to moist in sand seams, brown, strong hydrocarbon odor	
15	249			90	Sandy Clay (CL) Similar to above, hydrocarbon odor, tube is oily	
16'						



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

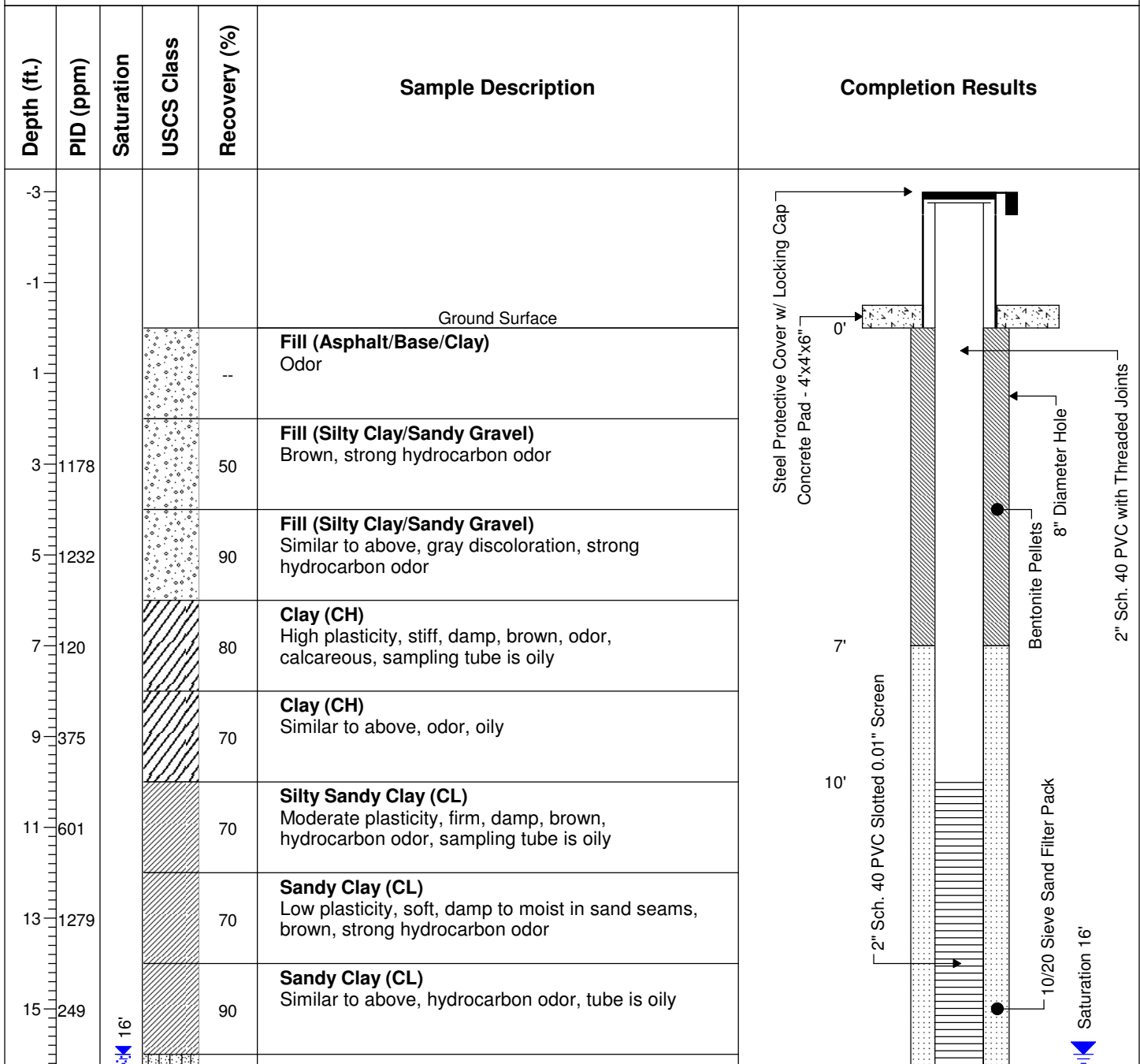
Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
18				90	Silty Sand (SM) Fine grain, loose, saturated, oily/phase-separated hydrocarbon, hydrocarbon odor, clay at base	<p>20' 20.33' 20.5'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				90	Silty Sand (SM) Similar to above	
20					Total Depth = 20' BGL	
22						
24						
26						
28						
30						
32						
34						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): 6944.67
Elev., PAD (ft. msl): 6944.89
Elev., GL (ft. msl): 6944.34
Site Coordinates:
N 1633381.19 **E** 2545842.82

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): 6944.67
Elev., PAD (ft. msl): 6944.89
Elev., GL (ft. msl): 6944.34
Site Coordinates:
N 1633381.19 **E** 2545842.82

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
18				90	Silty Sand (SM) Fine grain, loose, saturated, oily/phase-separated hydrocarbon, hydrocarbon odor, clay at base	<p>20' 20.33' 20.5'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				90	Silty Sand (SM) Similar to above	
Total Depth = 20' BGL						
22						
24						
26						
28						
30						
32						
34						

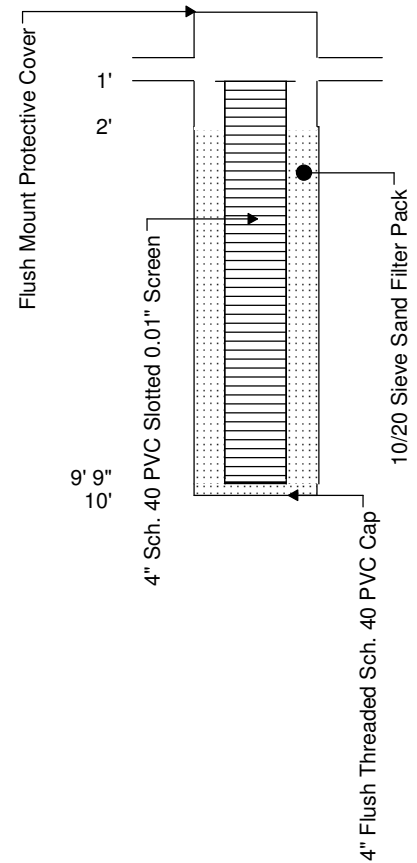
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Not Applicable
Driller: Western Refining Southwest, Inc.
Drilling Rig: Not Applicable
Drilling Method: Not Applicable
Sampling Method: Not Applicable
Comments: N 35°29.319' W 108°25.674'; Boring ID: Sump-N

Total Depth: 10' bgl
Ground Water: 7.86' ft. BTOC
Elev., TOC (ft. msl): 6951.78
Elev., PAD (ft. msl): 6951.89
Elev., GL (ft. msl): 6951.17
Site Coordinates:
N 1633698.28 **E** 2546111.23

Well No.: MKTF-20
Start Date: 2/10/2014
Finish Date: 2/10/2014

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1					Ground Surface	
3					Fill Material	
5						
7						
9						
11					Total Depth = 10' BGL	
13						
15						
17						
19						



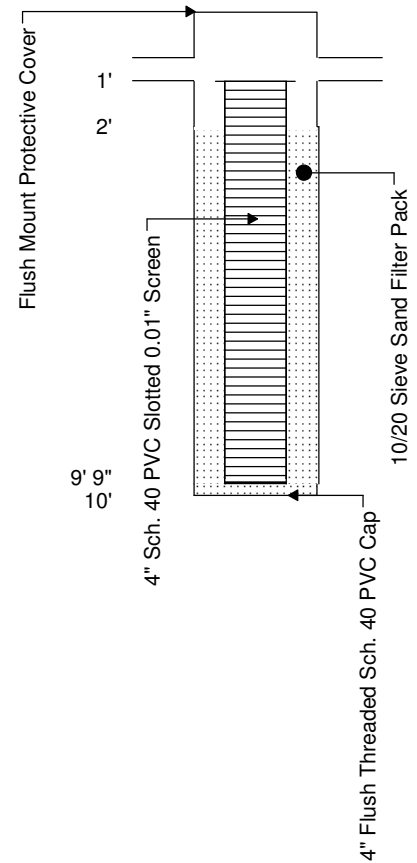
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Not Applicable
Driller: Western Refining Southwest, Inc.
Drilling Rig: Not Applicable
Drilling Method: Not Applicable
Sampling Method: Not Applicable
Comments: N 35°29.295' W 108°25.675'; Boring ID: Sump-S

Total Depth: 10' bgl
Ground Water: 7.60' ft. BTOC
Elev., TOC (ft. msl): 6952.57
Elev., PAD (ft. msl): 6952.68
Elev., GL (ft. msl): 6952.00
Site Coordinates:
N 1633570.30 **E** 2546110.00

Well No.: MKTF-21
Start Date: 2/10/2014
Finish Date: 2/10/2014

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1					Ground Surface	
3					Fill Material	
5						
7						
9						
11					Total Depth = 10' BGL	
13						
15						
17						
19						



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.802'; Boring ID - SB23

Total Depth: 32' bgl
Ground Water: Saturated @ 26' bgl
Elev., TOC (ft. msl): 6942.31
Elev., PAD (ft. msl): 6939.76
Elev., GL (ft. msl): 6938.57
Site Coordinates:
N 1633501.64 **E** 2545478.20

Well No.: MKTF-22
Start Date: 11/8/2013 12:15
Finish Date: 11/8/2013 15:30

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						<p>Steel Protective Cover w/Locking Cap Concrete Pad 4'x4x6" 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints Bentonite Pellets</p>
-1					Ground Surface	
1	3.4			10	Clayey Silt (ML) Low plasticity, very fine grain, compact to loose, damp, tan, no odor	
3	8.9			20	Clayey Silt (ML) Similar to above	
5	7.0			20	Clayey Silt (ML) Similar to above	
7	7.9			50	Clayey Silt (ML) Similar to above, light brown, no odor	
9	6.4			40	Clayey Silt (ML) Low plasticity, stiff, damp, light brown, no odor	
11	13.7			50	Clayey Silt (ML) Similar to above	
13	12.7			10	Clayey Silt (ML) Similar to above, very stiff	
15	10.1			70	Clayey Silt (ML) Very fine grain, stiff, damp, brown, no odor, becomes sandy at base	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.802'; Boring ID - SB23

Total Depth: 32' bgl
Ground Water: Saturated @ 26' bgl
Elev., TOC (ft. msl): 6942.31
Elev., PAD (ft. msl): 6939.76
Elev., GL (ft. msl): 6938.57
Site Coordinates:
N 1633501.64 **E** 2545478.20

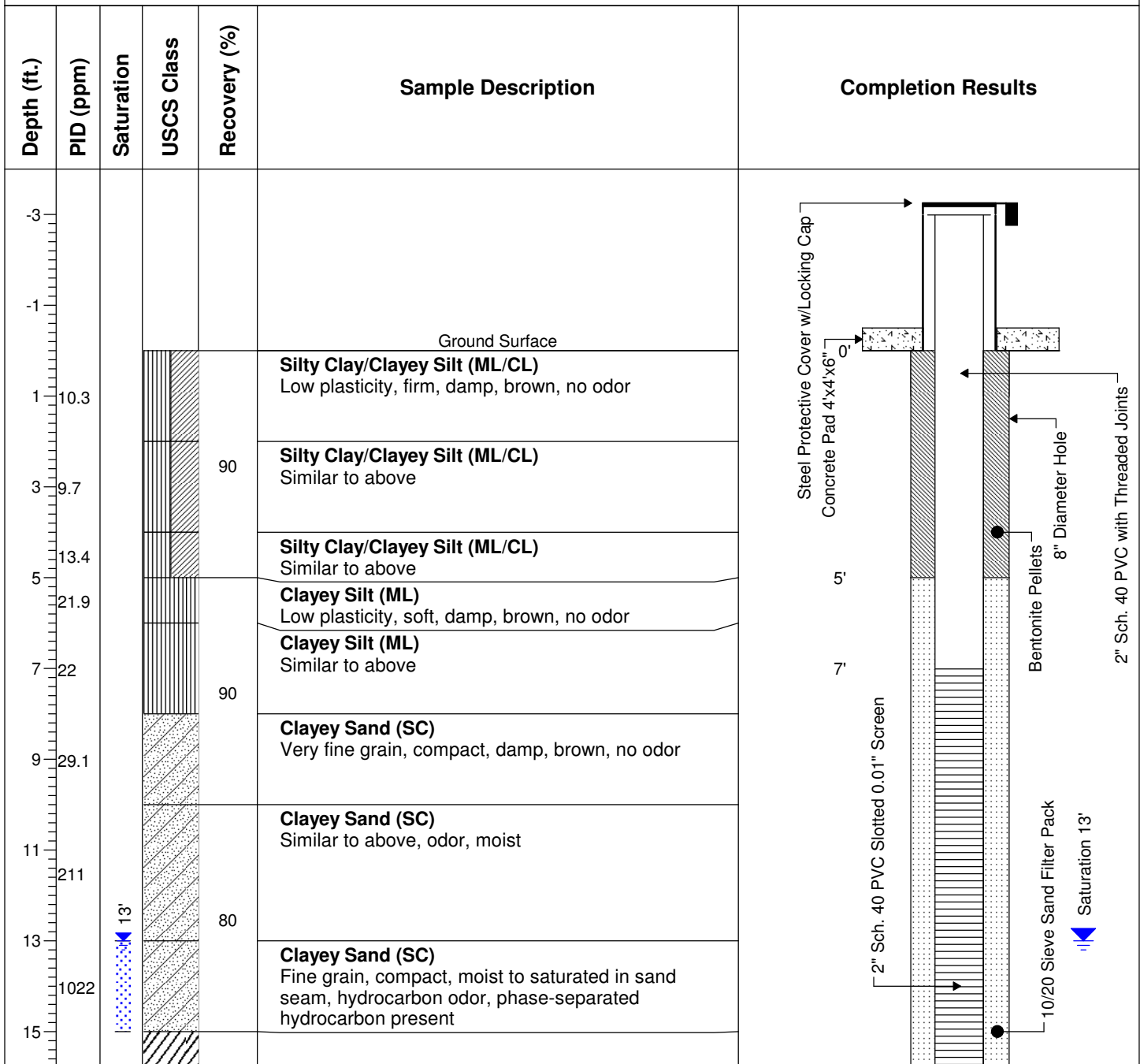
Well No.: MKTF-22
Start Date: 11/8/2013 12:15
Finish Date: 11/8/2013 15:30

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	13.2			10	Silty Clay/Clayey Silt (CL) Similar to above, increase in clay, damper, no odor	<p>20'</p> <p>22'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Bentonite Pellets</p> <p>10/20 Sieve Sand Filter Pack</p> <p>Saturation 26'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>Cave In</p> <p>32'</p> <p>32.33'</p> <p>32.5'</p>
19	17.2			90	Silty Clay (CL) Low plasticity, firm, damp, brown, no odor	
21	14.1			90	Sandy Clay (CL) Low plasticity, soft, damp, brown, no odor	
23	43.1			90	Sandy Clay (CL) Similar to above, damp, faint odor	
25	73.1			90	Sandy Clay (CL) Similar to above, very moist in sand seams, hydrocarbon odor	
27				90	Silty Sand (SM) Fine to medium grain, loose, saturated, brownish gray, hydrocarbon odor	
29				90	Clayey Silt (ML) Very fine grain, soft, moist, dark brown, hydrocarbon odor	
31				90	Sand (SP) Fine to medium grain, loose, saturated, brown, odor	
33				90	Silty Clay (CL) Low to moderate plasticity, firm, damp, brown and light olive/gray, no odor at base	
					Silty Clay (CL) Low plasticity, firm, damp, greenish gray, no odor	
Total Depth = 32' BGL						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.327' W 108°25.795'; Boring ID - SB25

Total Depth: 20' bgl
Ground Water: Saturated @ 13' bgl
Elev., TOC (ft. msl): 6929.98
Elev., PAD (ft. msl): 6927.23
Elev., GL (ft. msl): 6925.79
Site Coordinates:
N 1633750.93 **E** 2545503.70

Well No.: MKTF-23
Start Date: 11/4/2013 14:00
Finish Date: 11/4/2013 16:00



WELL INSTALLATION

Well No.: MKTF-23

Start Date: 11/4/2013 14:00

Finish Date: 11/4/2013 16:00

Client: Western Refining Southwest, Inc.

Site: Gallup Refinery - Seep West of Tank 102

Job No.: UEC01809

Geologist: Tracy Payne

Driller: Enviro-Drill, Inc.

Drilling Rig: CME 75

Drilling Method: Hollow Stem Augers

Sampling Method: Five-Foot Core Barrel

Comments: N 35°29.327' W 108°25.795'; Boring ID - SB25

Total Depth: 20' bgl

Ground Water: Saturated @ 13' bgl

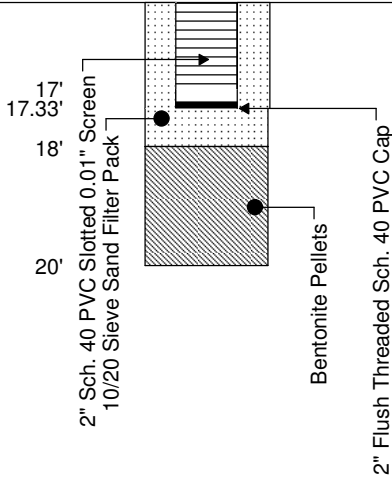
Elev., TOC (ft. msl): 6929.98

Elev., PAD (ft. msl): 6927.23

Elev., GL (ft. msl): 6925.79

Site Coordinates:

N 1633750.93 E 2545503.70

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
32.6					Clay (CH) High plasticity, stiff, damp, brown, no odor	 <p>17' 17.33' 18' 20'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>Bentonite Pellets</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
28.9				90		
19					Sandy Clay (CL) Moderate plasticity, firm, damp, brown and gray, no odor	
22.7						
21					Total Depth = 20' BGL	
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.342' W 108°25.800'; Boring ID - SB26

Total Depth: 30' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6928.72
Elev., PAD (ft. msl): 6926.07
Elev., GL (ft. msl): 6924.62
Site Coordinates:
N 1633853.19 **E** 2545468.48

Well No.: MKTF-24
Start Date: 10/29/2013 13:15
Finish Date: 10/29/2013 16:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						<p>Steel Protective Cover w/Locking Cap Concrete Pad 4'x4'x6" 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints Bentonite Pellets</p>
-1					Ground Surface	
1	14.1			90	Silt/Silty Sand (ML/SM) Very fine to fine grain, loose, dry, brown	
3	11.2			10	Silty Sand (SM) Fine grain, compact/very dense, damp, brown	
5	12.5			90	Silty Sandy Clay (CL) Low plasticity, very dense, damp, brown	
7	11.8			90	Silty Sandy Clay (CL) Similar to above	
9	14.8			60	Silty Sandy Clay (CL) Similar to above	
11	12.5			90	Silty Sandy Clay (CL) Similar to above	
13	12.8			90	Silty Sandy Clay (CL) Similar to above	
15	13.4			90	Clay (CH) High plasticity, firm, damp, brown, trace silt, no odor	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.342' W 108°25.800'; Boring ID - SB26

Total Depth: 30' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6928.72
Elev., PAD (ft. msl): 6926.07
Elev., GL (ft. msl): 6924.62
Site Coordinates:
N 1633853.19 **E** 2545468.48

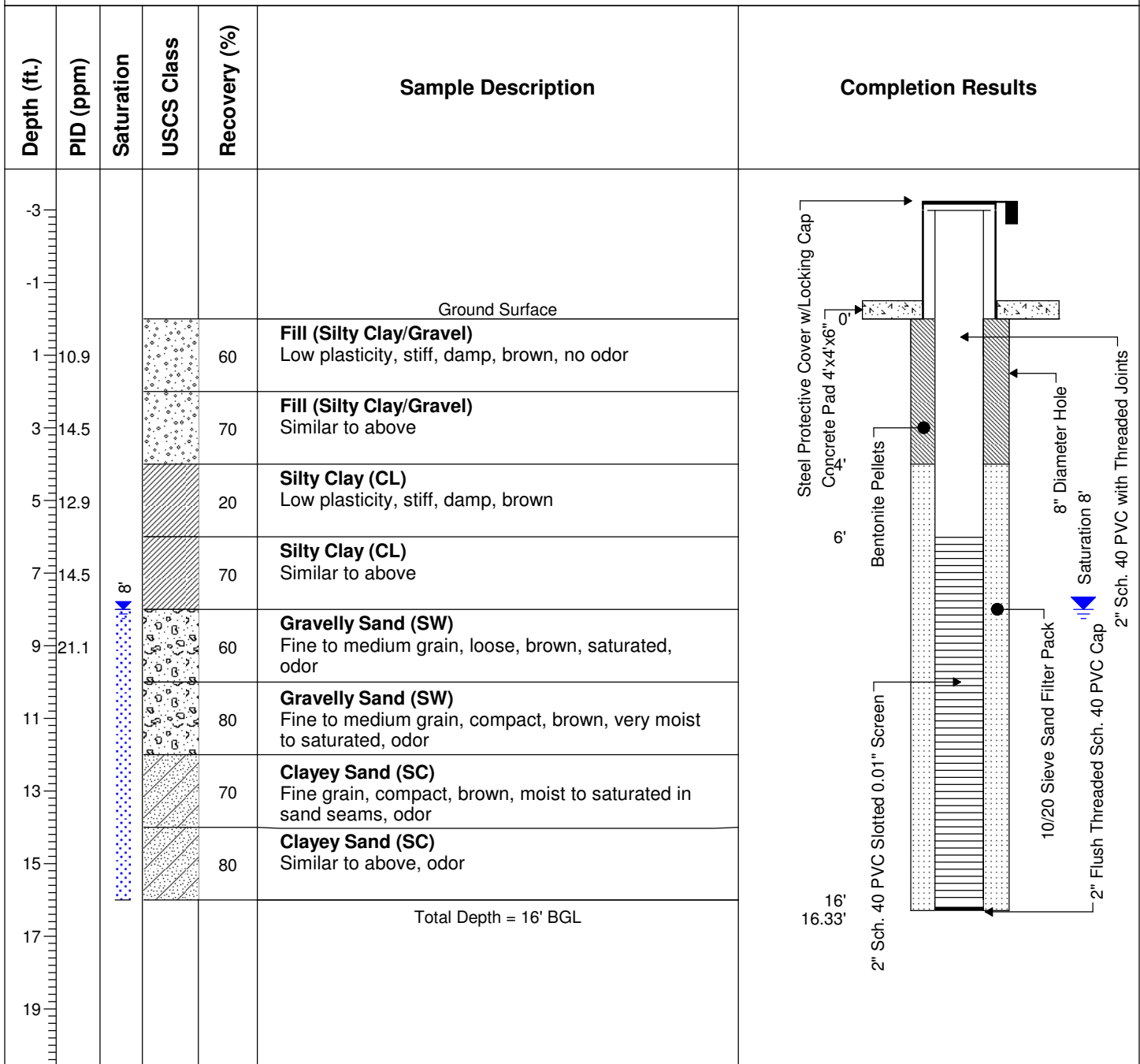
Well No.: MKTF-24
Start Date: 10/29/2013 13:15
Finish Date: 10/29/2013 16:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	16.8			70	Silty Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	<p>16'</p> <p>18'</p> <p>20' Saturation</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>Cave In</p>
19	33.7			90	Sandy Clay (CL) Low plasticity, soft, damp, brown, no odor	
21	40.8			90	Sandy Clay/Clayey Sand (CL/SC) Fine grain, compact to soft, moist to saturated, brown, no odor	
23				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, no odor	
25				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, no odor	
27				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, greenish gray sand at base	
29				90	Silt/Siltstone (ML) Low plasticity, very dense, dry, crumbly, brown/reddish brown, no odor	
31					Total Depth = 30' BGL	
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.372' W 108°25.840'; Boring ID - SB28

Total Depth: 16' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6916.19
Elev., PAD (ft. msl): 6913.35
Elev., GL (ft. msl): 6911.79
Site Coordinates:
N 1634015.86 **E** 2545275.68

Well No.: MKTF-25
Start Date: 10/30/2013 14:45
Finish Date: 10/30/2013 16:30

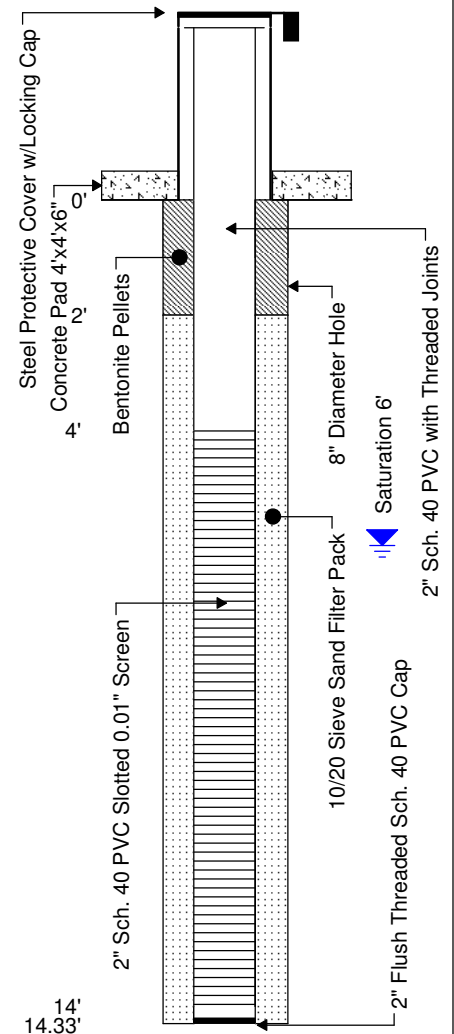


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.373' W 108°25.796'; Boring ID - SB29

Total Depth: 14' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): 6915.31
Elev., PAD (ft. msl): 6912.55
Elev., GL (ft. msl): 6911.35
Site Coordinates:
N 1634033.63 **E** 2545492.39

Well No.: MKTF-26
Start Date: 10/30/2013 10:40
Finish Date: 10/30/2013 12:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	17.5			80	Silty Clay (CL) Low plasticity, soft, damp, brown, no odor, trace small gravel	
3	9.4			60	Silty Clay (CL) Similar to above	
5	4.8			60	Silty Clay (CL) Similar to above	
7	34.8	6		90	Sandy Clay/Clayey Sand (SC/CL) Very fine grain, compact/soft, brown, moist, faint odor, saturated at base	
9				70	Sandy Clay (SC) Low plasticity, stiff, damp, brown, no odor	
11				60	Silt/Siltstone (ML) Low plasticity, very dense, dry, reddish brown, very fine grain sand in fissures, no odor	
13				60	Silt/Siltstone (ML) Similar to above	
15					Total Depth = 14' BGL	





WELL INSTALLATION

Well No.: MKTF-27

Start Date: 10/30/2013 09:00

Finish Date: 10/30/2013 10:20

Client: Western Refining Southwest, Inc.

Total Depth: 16' bgl

Site: Gallup Refinery - Seep West of Tank 102

Ground Water: Not Encountered

Job No.: UEC01809

Elev., TOC (ft. msl): 6917.90

Geologist: Tracy Payne

Elev., PAD (ft. msl): 6915.36

Driller: Enviro-Drill, Inc.

Elev., GL (ft. msl): 6914.18

Drilling Rig: CME 75

Site Coordinates:

Drilling Method: Hollow Stem Augers

N 1634115.56 **E** 2545620.98

Sampling Method: Split Spoon

Comments: N 35°29.387' W 108°25.771'; Boring ID - SB30

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1	3.3			90	Silty Clay (CL) Low plasticity, firm, damp, brown, occasional gravel	
3	4.1			80	Silty Clay (CL) Similar to above	
5	2.4			90	Silty Clay (CL) Similar to above	
7	4.1			90	Silty Clay (CL) Low to moderate plasticity, firm to soft, damp, brown, no odor, calcareous organics present	
9	3.3			80	Silt/Siltstone (ML) Low plasticity, very dense, dry, reddish brown with greenish gray very fine grain sand in fissures, no odor	
11	3.7			80	Silt/Siltstone (ML) Similar to above	
13	4.5			80	Silt/Siltstone (ML) Similar to above	
15	3.9			80	Silt/Siltstone (ML) Similar to above	
17					Total Depth = 16' BGL	
19						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.412' W 108°25.763', Air Temp: 48°F

Total Depth: 30' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): 6921.52
Elev., PAD (ft. msl): 6918.67
Elev., GL (ft. msl): 6917.51
Site Coordinates:
N 1634263.44 **E** 2545650.04

Well No.: MKTF-28
Start Date: 4/2/2014 11:30
Finish Date: 4/2/2014 14:25

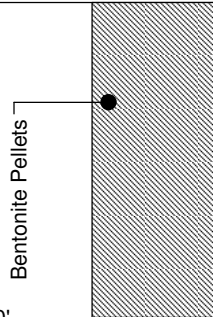
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	2.6			90	Fill (Silty Clay) Low plasticity, soft, damp, brown, no odor, sandy at base, moist	<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>
3	5.0					
5	3.6					
7	7.6			60	Silty Clay (CL) Similar to above, damp to moist at 7.5' bgl	
9	8.2					
11	8.1			60	Silty Clay (CL) Low plasticity, stiff, damp to dry, crumbly, brown, no odor	<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>
13	7.5					
15	9.1					
17	5.5			60	Silty Clay (CL) Similar to above	
19	7.8					<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>
21	3.5			60	Silty Clay (CL) Similar to above	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.412' W 108°25.763', Air Temp: 48°F

Total Depth: 30' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): 6921.52
Elev., PAD (ft. msl): 6918.67
Elev., GL (ft. msl): 6917.51
Site Coordinates:
N 1634263.44 **E** 2545650.04

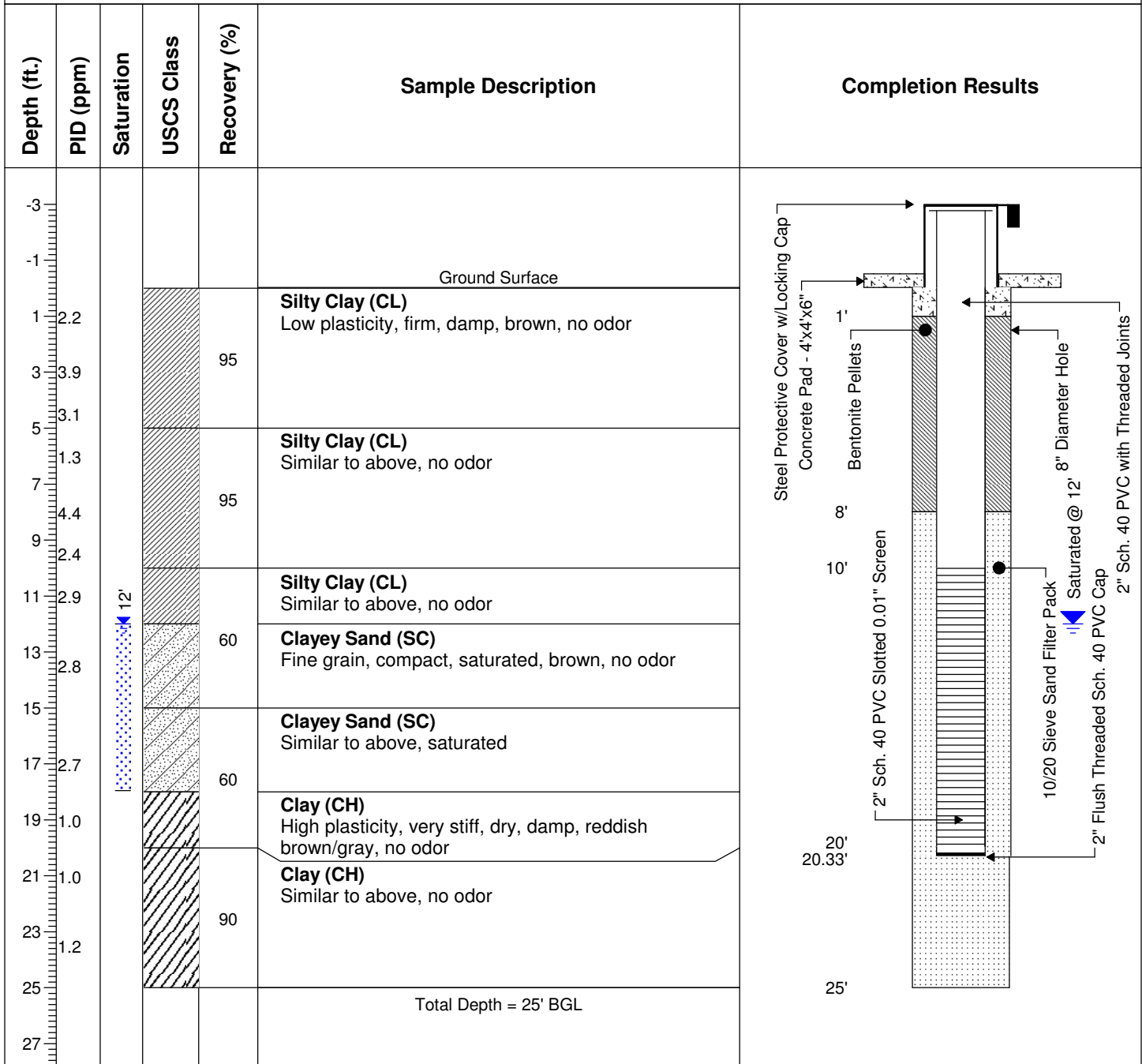
Well No.: MKTF-28
Start Date: 4/2/2014 11:30
Finish Date: 4/2/2014 14:25

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
24	4.3				Clay (CH) High plasticity, very stiff, reddish brown and gray, no odor, crumbly	
26	4.1			60	Clay (CH) Similar to above	
28	3.3					
30					Total Depth = 30' BGL	
32						
34						
36						
38						
40						
42						
44						
46						
48						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.406' W 108°25.846', Air Temp: 41 °F

Total Depth: 25' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6901.62
Elev., PAD (ft. msl): 6898.83
Elev., GL (ft. msl): 6897.67
Site Coordinates:
N 1634249.76 **E** 2545258.34

Well No.: MKTF-29
Start Date: 4/2/2014 08:30
Finish Date: 4/2/2014 11:15





WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.405' W 108°25.910', Air

Total Depth: 25' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6900.80
Elev., PAD (ft. msl): 6898.10
Elev., GL (ft. msl): 6896.68
Site Coordinates:
N 1634225.67 **E** 2544937.91

Well No.: MKTF-30
Start Date: 4/1/2014 13:00
Finish Date: 4/1/2014 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	12.3			30	Fill (Silty Clay) Low plasticity, firm, dry, brown, no odor	
3						
5	12.3			90	Fill (Silty Clay) Similar to above, dry, crumbly, no odor, sand at base	
7						
9	13.2					
11	17.1					
13	18.5	12'		80	Silty Sand (SM) Fine grain, compact to loose, moist to saturated at 12' bgl, brown, no odor, clayey at 14' bgl	
15	17.2					
17	13.1			90	Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	
19	13.8				Clayey Sand (SC) Very fine grain, compact, saturated, brown, no odor	
21	9.1				Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	
23	6.2			95	Clay (CH) Moderate to high plasticity, stiff, damp to dry, crumbly, brown/gray, no odor	
25					Total Depth = 25' BGL	
27						

Steel Protective Cover w/Locking Cap

Concrete Pad - 4'x4'x6"

Bentonite Pellets

1'

8'

10'

20'

20.33'

25'

2" Sch. 40 PVC with Threaded Joints

2" Sch. 40 PVC Slotted 0.01" Screen

10/20 Sieve Sand Filter Pack

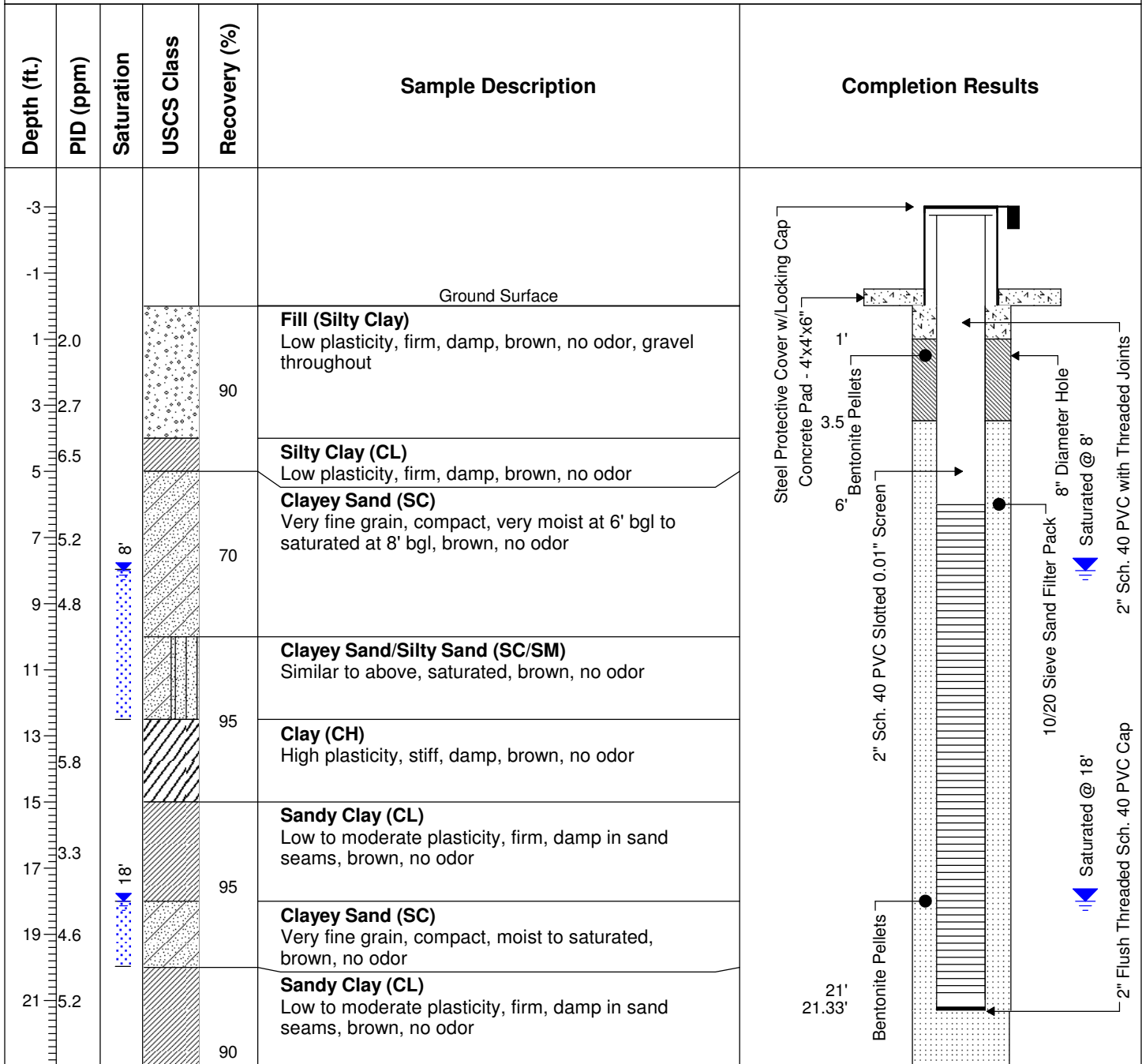
Saturated @ 12"

2" Flush Threaded Sch. 40 PVC Cap

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.350' W 108°25.909', Air Temp: 48°F; Boring ID - SB20

Total Depth: 30' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6906.87
Elev., PAD (ft. msl): 6904.26
Elev., GL (ft. msl): 6903.11
Site Coordinates:
N 1633898.83 **E** 2544938.99

Well No.: MKTF-31
Start Date: 4/1/2014 08:20
Finish Date: 4/1/2014 12:00



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.350' W 108°25.909', Air Temp: 48°F; Boring ID - SB20

Total Depth: 30' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6906.87
Elev., PAD (ft. msl): 6904.26
Elev., GL (ft. msl): 6903.11
Site Coordinates:
N 1633898.83 **E** 2544938.99

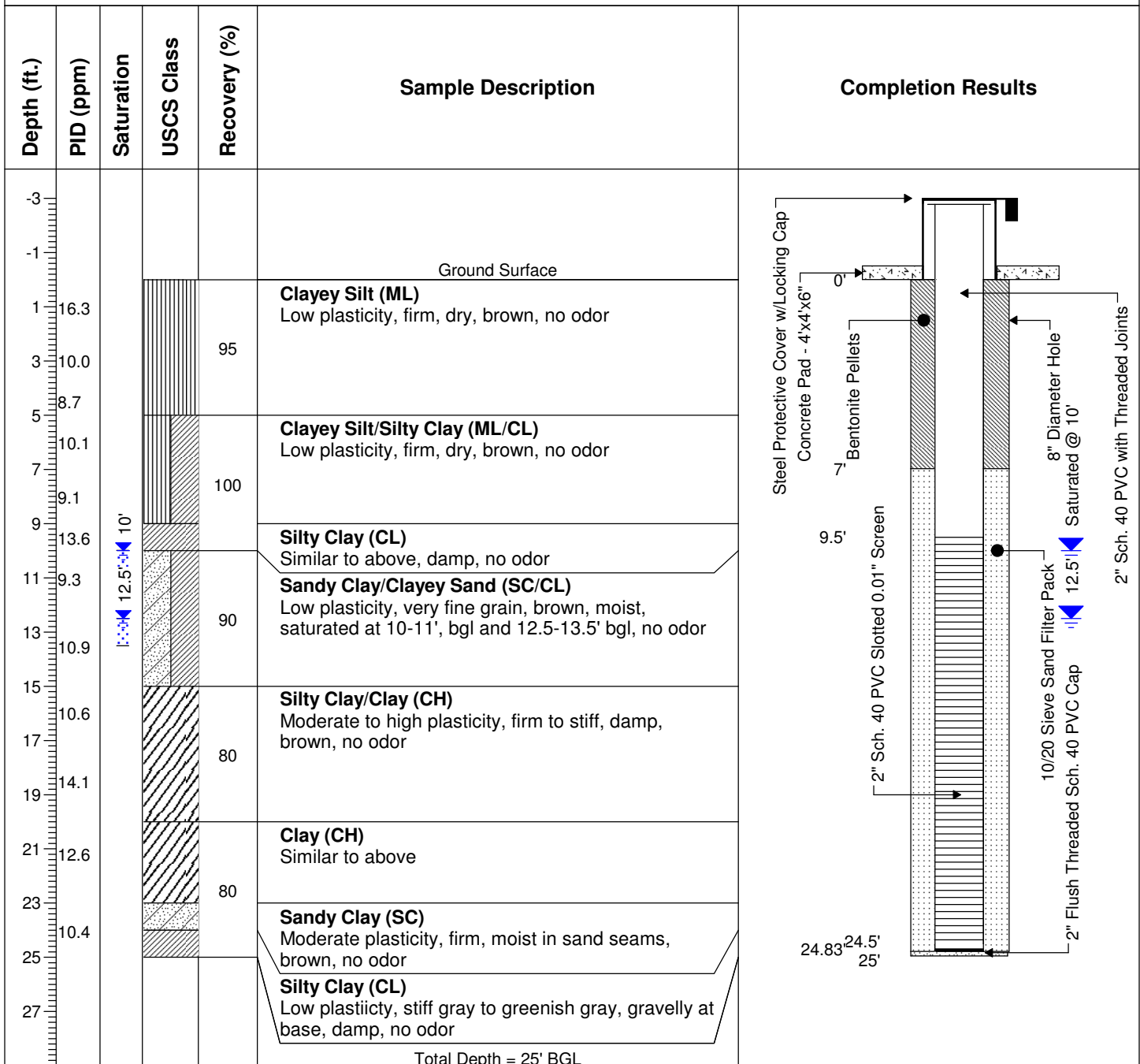
Well No.: MKTF-31
Start Date: 4/1/2014 08:20
Finish Date: 4/1/2014 12:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
24	7.2					
26	2.5			90	Clay (CH) Moderate plasticity, firm, dry to damp, crumbly, reddish brown, no odor	
28	2.3					
30					Total Depth = 30' BGL	30' 10/20 Sieve Sand Filter Pack
32						
34						
36						
38						
40						
42						
44						
46						
48						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.275' W 108°25.928', Air Temp: 58°F

Total Depth: 25' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6911.11
Elev., PAD (ft. msl): 6908.44
Elev., GL (ft. msl): 6907.16
Site Coordinates:
N 1633443.56 **E** 2544840.32

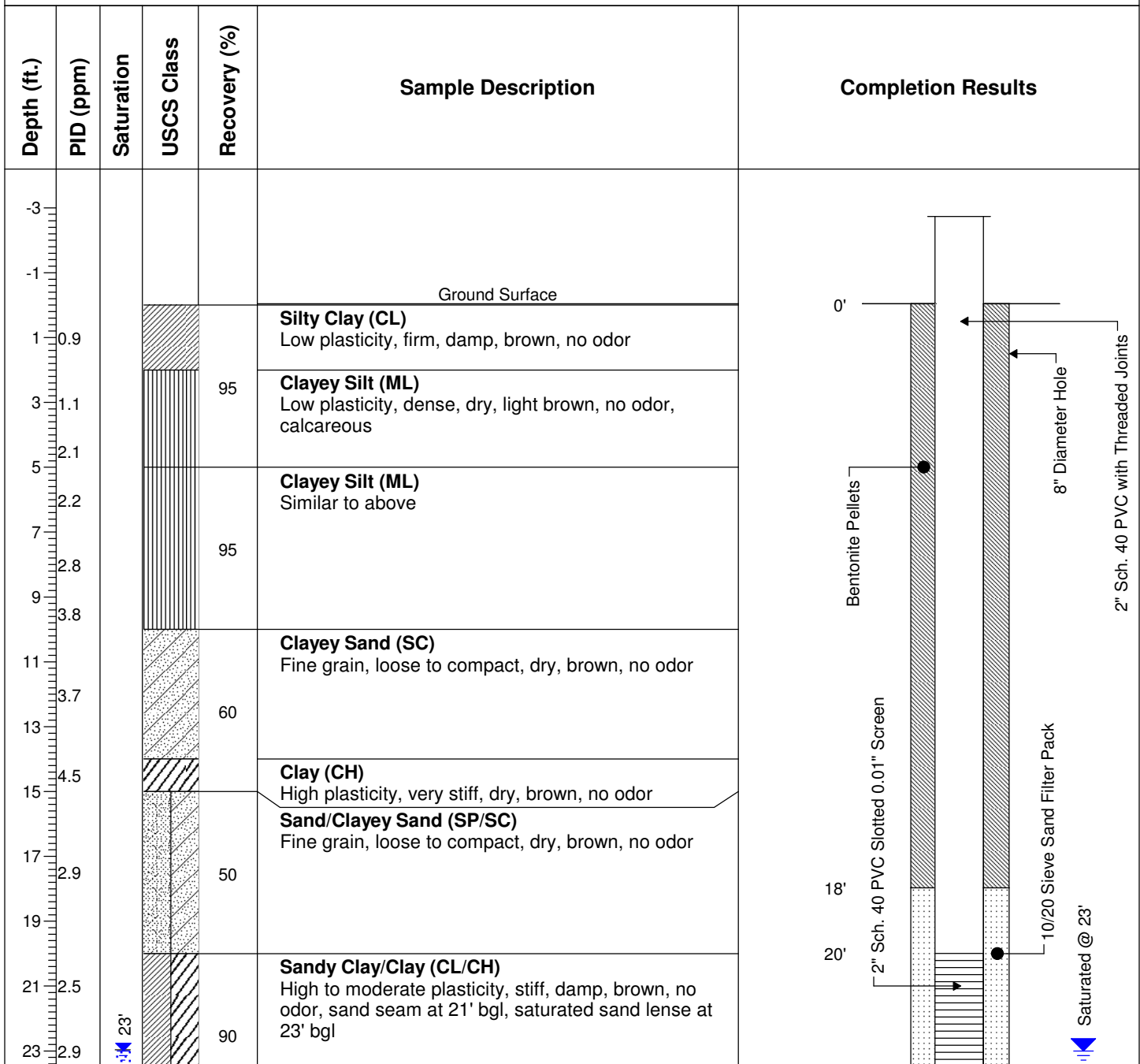
Well No.: MKTF-32
Start Date: 3/31/2014 14:40
Finish Date: 3/31/2014 16:30



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.246' W 108°25.830', Air Temp: 30°F

Total Depth: 35' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6939.75
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): 6936.59
Site Coordinates:
N 1633261.99 **E** 2545318.27

Well No.: MKTF-33
Start Date: 4/3/2014 08:40
Finish Date: 4/3/2014 12:00



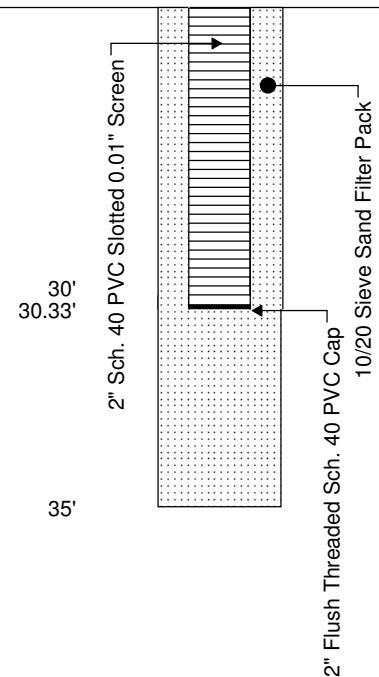
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.246' W 108°25.830', Air Temp: 30°F

Total Depth: 35' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6939.75
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): 6936.59
Site Coordinates:
N 1633261.99 **E** 2545318.27

Well No.: MKTF-33
Start Date: 4/3/2014 08:40
Finish Date: 4/3/2014 12:00

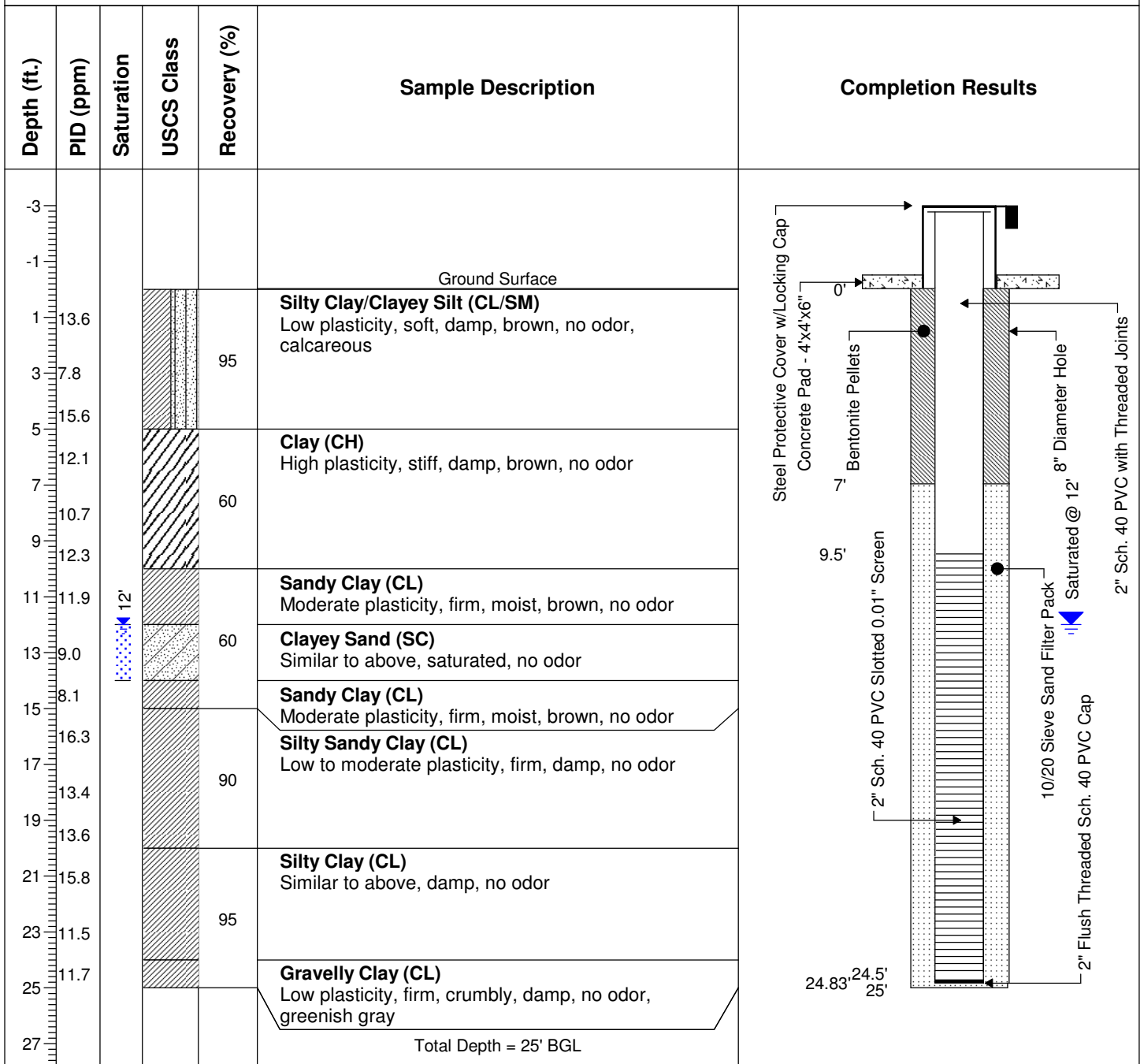
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
25	3.4					
27	1.6			90	Clayey Sand/Sandy Clay (SC/CL) Moderate plasticity, firm, moist to saturated throughout interval, brown, interbedded sand/clay, no odor	
29	2.5					
31				95	Clay (CH) High plasticity, very stiff, brown, damp, no odor	
33						
35					Total Depth = 35' BGL	
37						
39						
41						
43						
45						
47						
49						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.224' W 108°25.757', Air Temp: 49-51 °F

Total Depth: 25' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6945.35
Elev., PAD (ft. msl): 6942.42
Elev., GL (ft. msl): 6943.52
Site Coordinates:
N 1633118.42 **E** 2545681.30

Well No.: MKTF-34
Start Date: 3/31/2014 11:00
Finish Date: 3/31/2014 13:45



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 18'
Ground Water : 10'
Start Date : 11/19/2014
Finish Date : 11/19/2014

MKTF-35

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6951.65
Elev., PAD (ft. msl) : 6951.90
Elev., GL (ft. msl) : 6951.25
Site Coordinates :
N : 1633204.45
E : 2546011.60

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-35
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	Flush Mount Completion 2'x2'x6"
1	4.5			CL	100		SILTY CLAY, low, very stiff, damp, brown,	
2								Bentonite Pellets
3	46.6			CL	20		SILTY CLAY, SIMILAR TO ABOVE (STA), odor, gravel present,	2" Sch 40 PVC Casing Threaded Joints
4								
5	95			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, damp, reddish brown, odor, very coarse grain sand, 1/4" to 1" gravel, odor,	
6								
7	64			CL	80		SILTY CLAY, low, firm, damp, reddish brown, odor, occasional gravel,	
8								
9	78			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO 4-6', damp to moist, odor,	
10		▼						10/20 Sieve Sand Filter Pack
11	1790			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO ABOVE (STA), saturated, hydrocarbon (hc) odor,	2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
12				CL	90		SILTY CLAY, low, stiff, damp, reddish brown, light grey clay @ base, hc odor,	
13	2400			CL/SC	90		SILTY CLAY/SANDY CLAY, low, firm to stiff, damp, grey, hc odor, sand/silt varies across interval,	
14								
15	745			CL	50		SANDY GRAVELLY CLAY, STA, damp, grey, brown @ base, hc odor,	
16								
17	37			CL	90		CLAY, mod, very stiff, damp, brown and grey, faint odor.	2" Flush Threaded Sch 40 PVC Cap
18								
19								

1010 Travis Street
Houston, Texas 77002
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DiSorbo Consulting, LLC

8501 N. MoPac Expy, Suite 300
Austin, Texas 78759
512-693-4190

Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 16'
Ground Water : 10'
Start Date : 11/19/2014
Finish Date : 11/19/2014

MKTF-36

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6950.12
Elev., PAD (ft. msl) : 6950.67
Elev., GL (ft. msl) : 6949.87
Site Coordinates :
N : 1633349.47
E : 2545982.58

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-36
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	Flush Mount Completion 2'x2'x6"
1	812			CL	90		SANDY CLAY, low, stiff, dry, tan, no odor, gravel throughout,	Bentonite Pellets
2								
3	276			CL	60		SILTY CLAY, low, very stiff, dry, brown, hydrocarbon (hc) odor,	2" Sch 40 PVC Casing Threaded Joints
4								
5	1700			CL	60		SILTY CLAY, SIMILAR TO ABOVE (STA), trace sand/gravel, hc odor,	
6								
7	2411			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, firm, damp, tan, very coarse sand, 1/4" to 1" gravel, hc odor, moist to very moist in seams,	
8								
9	2278			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, moist, fluid in top of sampling spoon, strong hc odor, trace phase separated hydrocarbon (psh),	
10		▼					SILTY CLAY/SAND/GRAVEL, STA, saturated, psh,	10/20 Sieve Sand Filter Pack 2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
11	1879			CL/SP	90			
12				CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, saturated, psh,	
13	405			CL	90		SILTY CLAY, low, stiff, damp, brown, hc odor,	
14							SILTY CLAY, STA, damp, hc odor.	
15	450			CL	90			2" Flush Threaded Sch 40 PVC Cap
16								

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Austin, Texas 78759
512-693-4190

Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 24'
Ground Water : 8'
Start Date : 11/18/2014
Finish Date : 11/18/2014

MKTF-37

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6958.87
Elev., PAD (ft. msl) : 6959.07
Elev., GL (ft. msl) : 6958.62
Site Coordinates :
N : 1633291.89
E : 2546216.67

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-37
							DESCRIPTION	
-2								
-1								
0								
1	69				40		ASPHALT/GRAVEL BASE, CLAY, very stiff, brown, damp, faint odor,	
2								
3	367		CL		50		SILTY CLAY, low, very stiff, brown, damp, odor, gravel present,	
4								
5	355		CL/SP		60		SILTY CLAY/SAND/GRAVELLY, low to firm, damp, brown with sand/gravel, odor,	
6								
7	1790		CL/SP		80		SILTY CLAY/SAND/GRAVELLY, SIMILAR TO ABOVE (STA), odor,	
8								
9	2140		CL		90		SILTY CLAY, low, soft, moist to very moist, brown, strong odor,	
10			SW/GW		90		SANDY GRAVEL/GRAVELLY SAND, coarse to very coarse grain, compact, very moist, odor, tan,	
11	404		CL/SP		90		SILTY CLAY/SAND/GRAVEL, low to firm, damp, brown with coarse sand & gravel, odor,	
12								
13	454		CL		20		SANDY CLAY, low, soft, damp, odor, light grey, gravel @ base,	
14								
15	660		CL		50		SANDY CLAY, low, very stiff, damp, odor, light grey,	
16								
17	340		CL		30		SANDY CLAY, STA,	
18								
19	344		CL		30		SANDY CLAY, STA,	
20								
21	421		CL		60		SANDY CLAY, STA,	
22			SH		60		SHALE, CLAYEY, light purple, damp, very stiff, odor,	
23	375		SH		30		SHALE, STA,	
24								
25								

1010 Travis Street
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713-955-1230

DiSorbo Consulting, LLC

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Austin, Texas 78759
512-693-4190

Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 20.25'
Ground Water : 8'
Start Date : 11/20/2014
Finish Date : 11/20/2014

MKTF-38

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6954.89
Elev., PAD (ft. msl) : 6955.17
Elev., GL (ft. msl) : 6954.54
Site Coordinates :
N : 1633451.01
E : 2546222.09

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-38
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	
1	217			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, firm, damp, brown, coarse grain sand, 1/4" to 1" gravel, odor,	Flush Mount Completion 2'x2'x6"
2								Bentonite Pellets
3	70			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO ABOVE (STA), odor,	2" Sch 40 PVC Casing Threaded Joints
4								
5	42			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, odor,	
6								
7	20			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, odor,	
8		▼						▼
9	9			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, decrease in clay content, very moist to saturated, odor,	
10								
11	7			GW	90		SANDY GRAVEL, compact, brown, saturated, faint odor, very coarse grain sand, 1/4" to 1.5" gravel,	
12				CL	90			
				GW	90		SANDY CLAY, low, firm to soft, moist, brown,	10/20 Sieve Sand Filter Pack
13	8			GW	10		SANDY GRAVEL, STA (10-11), saturated,	2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
14							SANDY GRAVEL, STA, saturated,	
15	6			GW	10		SANDY GRAVEL, STA, saturated,	
16								
17	4			CL	50		SANDY CLAY, low, firm, damp to moist, greyish brown, faint odor,	
18								
19	5			CL	60		SANDY CLAY, STA,	
20								2" Flush Threaded Sch 40 PVC Cap
21								

Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 16'
Ground Water : 12'
Start Date : 11/14/2014
Finish Date : 11/14/2014

MKTF-39

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6953.75
Elev., PAD (ft. msl) : 6953.97
Elev., GL (ft. msl) : 6953.12
Site Coordinates :
N : 1633729.23
E : 2546265.99

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results MKTF-39
-2									
-1									
0									
1	2.1			ML	100			GRAVEL/CLAYEY SILT, FILL, brown, damp, faint odor,	
2								GRAVEL/SILTY CLAY, FILL, mod, stiff, damp, brown, no odor,	
3	29.4			CL	100			SANDY SILTY CLAY, FILL, low, soft, damp, brown, pea sized gravel, no odor, damp,	
4									
5	6.5			CL	90			SILTY GRAVELLY SAND, FILL, loose, medium sand to 1.5" gravel, brown, no odor, damp,	
6									
7	4.5			SW	90			SANDY CLAY/CLAYEY SAND, coarse, compact, damp to moist, brown, hydrocarbon (hc) odor, gravelly,	
8									
9	400			CL/SC	90			SANDY CLAY/CLAYEY SAND, SIMILAR TO ABOVE (STA), moist/oily, hc odor, gravelly,	
10									
11	569			CL	90			SANDY GRAVEL, loose, brown, saturated, hc odor, very coarse sand to 3/4" gravel,	
12	-			GP	90			SILTY CLAY, low, very stiff, dry to damp, grey, faint odor @ base,	
13	51			CL	90			SILTY CLAY, STA.	
14									
15	18			CL	90				
16									

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 22'
Ground Water : 10'
Start Date : 11/13/2014
Finish Date : 11/13/2014

MKTF-40

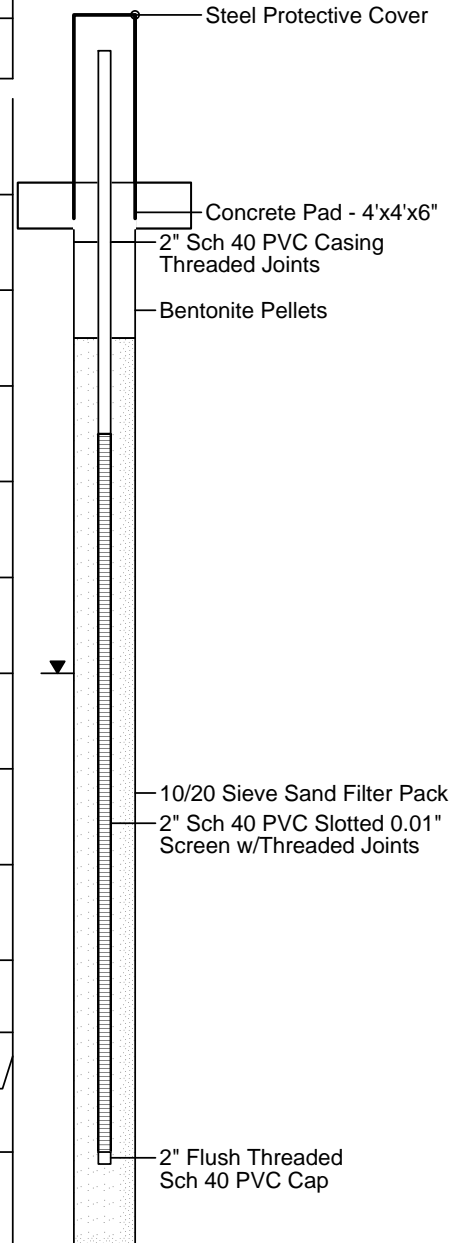
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6894.33
Elev., PAD (ft. msl) : 6891.35
Elev., GL (ft. msl) : 6890.48
Site Coordinates :
N : 1634085.50
E : 2544637.81

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
-2							
-1							
0							
1	0.8			CL	100		CLAY, mod, stiff, damp, brown, no odor, gravel,
2							
3	0.1			CL	90		CLAY, SIMILAR TO ABOVE (STA), gravel,
4							
5	0.7			CL	80		CLAY, STA,
6							
7	1.8			CL	90		SANDY CLAY, low, firm to soft, damp, brown, no odor, moist 7-8' ,
8							
9	2.0			CL	70		SANDY CLAY, STA, damp to moist,
10							
11	0.6			CL/SC	90		SANDY CLAY/CLAYEY SAND, STA, moist to saturated in clayey sand seams, no odor,
12							
13	1.5			CL	20		SANDY SILTY CLAY, low, stiff, damp, brown, no odor, moist to saturated in sand seams,
14							
15	2.2			CL/SC	80		SANDY CLAY/CLAYEY SAND, low, firm to soft, moist to saturated in clayey sand seams,
16							
17	2.2			CL/SC	80		SANDY CLAY/CLAYEY SAND, STA, moist to saturated,
18				CL	90		SILTY CLAY, low, very stiff, damp, reddish brown and grey, no odor,
19	2.5			CL	80		SILTY CLAY, STA,
20							
21	2.6			CL	50		SILTY CLAY, STA,
22							
23							

Completion Results

MKTF-40



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 37.25'
Ground Water : 34'
Start Date : 11/13/2014
Finish Date : 11/14/2014

MKTF-41

(Sheet 1 of 2)

Elev., TOC (ft.msl) : 6893.64
Elev., PAD (ft. msl) : 6891.11
Elev., GL (ft. msl) : 6889.80
Site Coordinates :
N : 1633499.80
E : 2544567.57

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results
-2									
-1									
0									
1	2.6			CL	80			SANDY SILTY CLAY, low, stiff, dry, brown, no odor, fine grained sand, occasional gravel,	
2									
3	2.3			CL	70			SANDY SILTY CLAY, SIMILAR TO ABOVE (STA), no odor,	
4									
5	1.2			CL	40			SANDY SILTY CLAY, STA, no odor,	
6									
7	2.4			CL/ML	50			SILTY CLAY/CLAYEY SILT, low, firm, dry, brown, no odor,	
8									
9	3.9			CL	60			SANDY CLAY, low, very stiff, dry, brown, no odor,	
10									
11	4.8			CL	30			SANDY CLAY, STA, damp,	
12									
13	3.5			CL	40			SANDY CLAY, STA,	
14									
15	1.2			CL	10			SANDY CLAY, STA,	
16									
17	3.9			CL	50			SILTY CLAY, low, very stiff, dry/damp, light reddish brown with grey @ base, no odor,	
18									
19	4.0			CL				SILTY CLAY, STA, reddish brown and light grey,	

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 37.25'
Ground Water : 34'
Start Date : 11/13/2014
Finish Date : 11/14/2014

MKTF-41

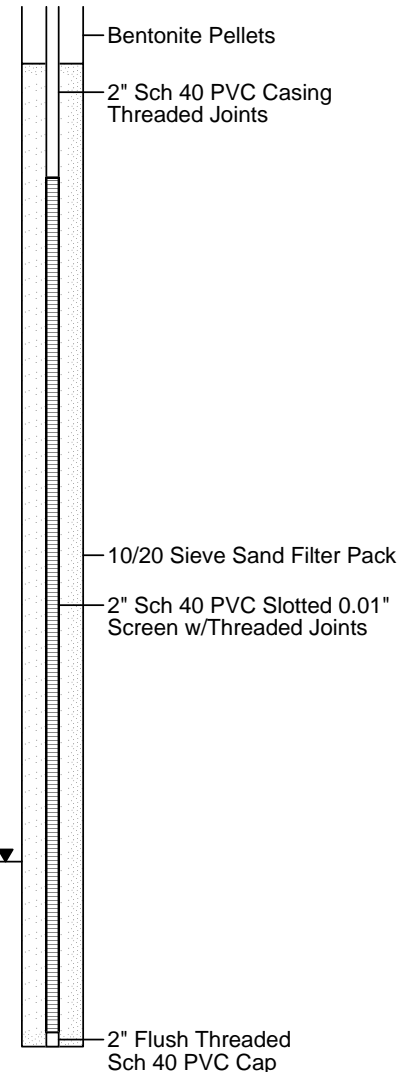
(Sheet 2 of 2)

Elev., TOC (ft.msl) : 6893.64
Elev., PAD (ft. msl) : 6891.11
Elev., GL (ft. msl) : 6889.80
Site Coordinates :
N : 1633499.80
E : 2544567.57

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
19	4.0			CL	80		
20							SILTY CLAY, STA, light reddish brown,
21	3.9			CL	50		
22							SILTY CLAY, STA, light reddish brown and trace grey,
23	3.6			CL	40		
24							SILTY CLAY, STA, light reddish brown,
25	3.3			CL	50		
26							SILTY CLAY, STA,
27	2.1			CL	10		
28							SILTY CLAY, STA,
29	2.8			CL	20		
30							SILTY CLAY, STA, moist @ top of sample,
31	2.6			CL	40		
32							SILTY CLAY, STA, calcareous,
33	3.1			CL	50		
34		▼					SILTY CLAY, STA, gravelly, moist to saturated, no odor, shale @ base,
35	2.9			CL	50		
36							SHALE, dark grey, dense to very dense,
37	-			SH	10		
38							
39							
40							

Completion Results

MKTF-41



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 30.25'
Ground Water :
Start Date : 11/12/2014
Finish Date : 11/12/2014

MKTF-42

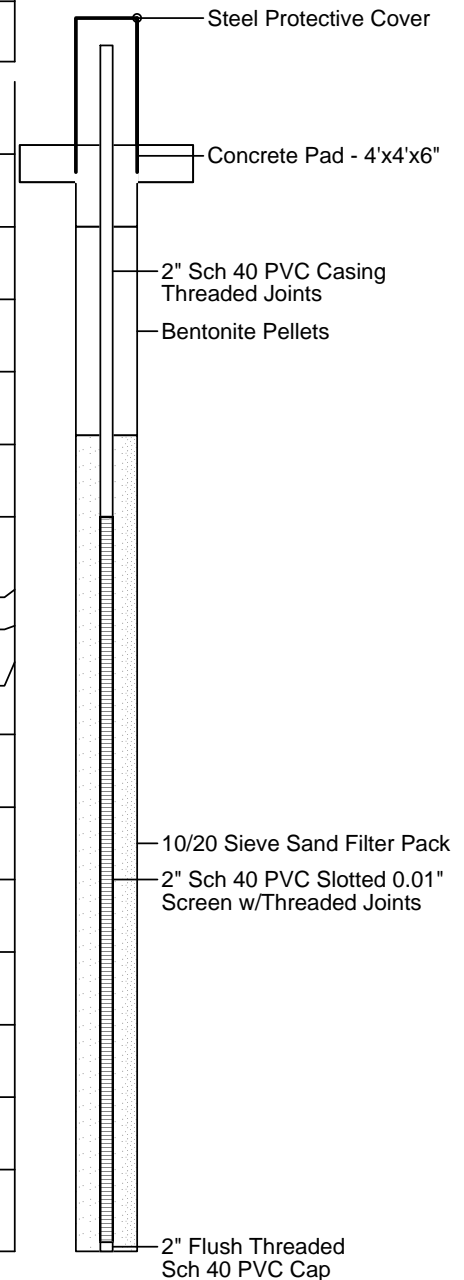
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6892.95
Elev., PAD (ft. msl) : 6890.42
Elev., GL (ft. msl) : 6888.75
Site Coordinates :
N : 1633078.09
E : 2544678.55

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
							Water Level Depth to water - 18.79 fbtoc 11-18-14 (not known to be static)
-2							
-1							
0							
1	1.7			CL	100		SILTY CLAY, low, firm, dry, light brown, no odor,
2							
3	2.8			CL	90		SILTY CLAY, low, very stiff, dry, light brown, calcareous, no odor, crumbly,
4							
5	3.8			CL	60		SILTY CLAY, SIMILAR TO ABOVE (STA),
6							
7	2.4			CL	60		SILTY CLAY, STA,
8							
9	4.1			CL	30		SILTY CLAY, STA,
10							
11	2.8			CL	50		SANDY CLAY, low, stiff, dry, light reddish brown with medium grained sand and interbedded sandstone less than 1/2" thick,
12							
13	3.9			CL	80		SANDY CLAY, STA,
14				CL	80		SILTY CLAY, low, very stiff, damp/dry, light reddish brown, no odor, calcareous,
15	2.5			CL	60		SILTY CLAY, STA, increase in moisture,
16							
17	2.3			CL	50		SILTY CLAY, STA, trace sand, standstone seam @ 17.5', very dense,
18							
19	2.4			CL	80		SILTY CLAY, STA, odor, extremely calcareous (50%),
20							
21	1.5			CL	80		SILTY CLAY, STA, calcareous,
22							
23	2.5			CL	10		SILTY CLAY, low, stiff, damp, reddish brown, no odor,
24							
25	1.4			CL	60		SILTY CLAY, STA,
26							
27	1.5			CL	60		SILTY CLAY, STA, trace grey,
28							
29	1.2			CL	50		SILTY CLAY, STA, grey and reddish brown.
30							
31							

Completion Results

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 28'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/11/2014

MKTF-43

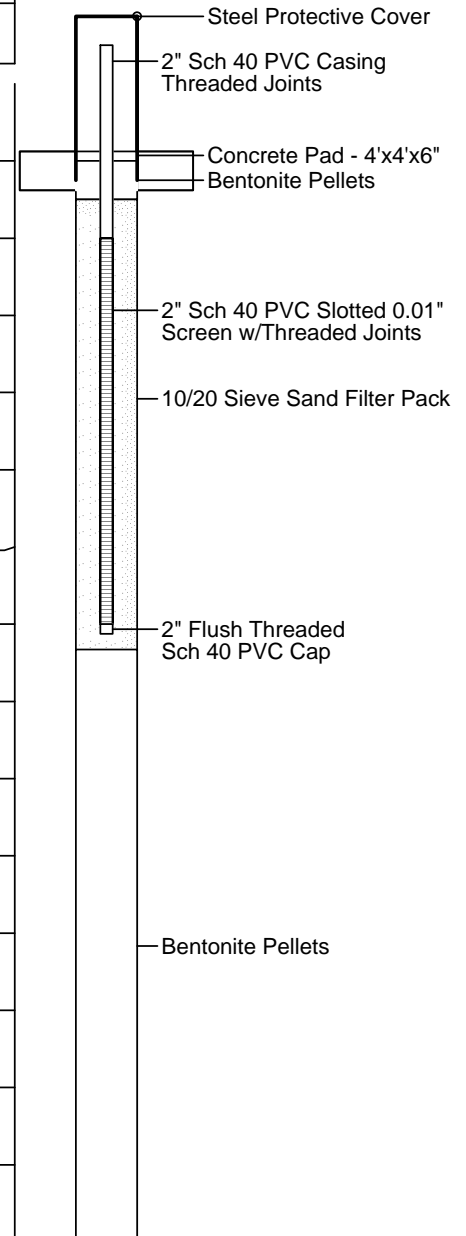
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6876.90
Elev., PAD (ft. msl) : 6874.12
Elev., GL (ft. msl) : 6873.22
Site Coordinates :
N : 1633490.97
E : 2544190.23

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
							Water Level Depth to water - 6.95 ftboc 11-18-14 (not known to be static)
-2							
-1							
0							
1	3.6			CH	100		CLAY, high, stiff, damp, brown, no odor,
2							
3	4.6			CH	50		CLAY, SIMILAR TO ABOVE (STA), moist in seams,
4							
5	4.2			CH	90		CLAY, STA, moist in seams,
6							
7	4.6			CH	90		CLAY, STA, reddish brown,
8							
9	4.0			CL	90		SILTY CLAY, low, soft, damp, reddish brown, crumbly, no odor, trace grey clay @ 9.5',
10							
11	3.3			CL	80		SILTY CLAY, STA, stiff,
12							
13	3.8			CL	60		SILTY CLAY, STA, very stiff,
14							
15	3.8			CL	80		SILTY CLAY, STA, very stiff, calcareous,
16							
17	2.9			CL	80		SILTY CLAY, STA,
18							
19	3.1			CL	50		SILTY CLAY, STA,
20							
21	3.1			CL	60		SILTY CLAY, STA,
22							
23	3.2			CL	10		SILTY CLAY, STA,
24							
25	3.3			CL	30		SILTY CLAY, STA, sandstone seam 24.50',
26							
27	3.2			CL	30		SILTY CLAY, STA.
28							
29							

Completion Results

MKTF-43



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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 50'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/12/2014

MKTF-44

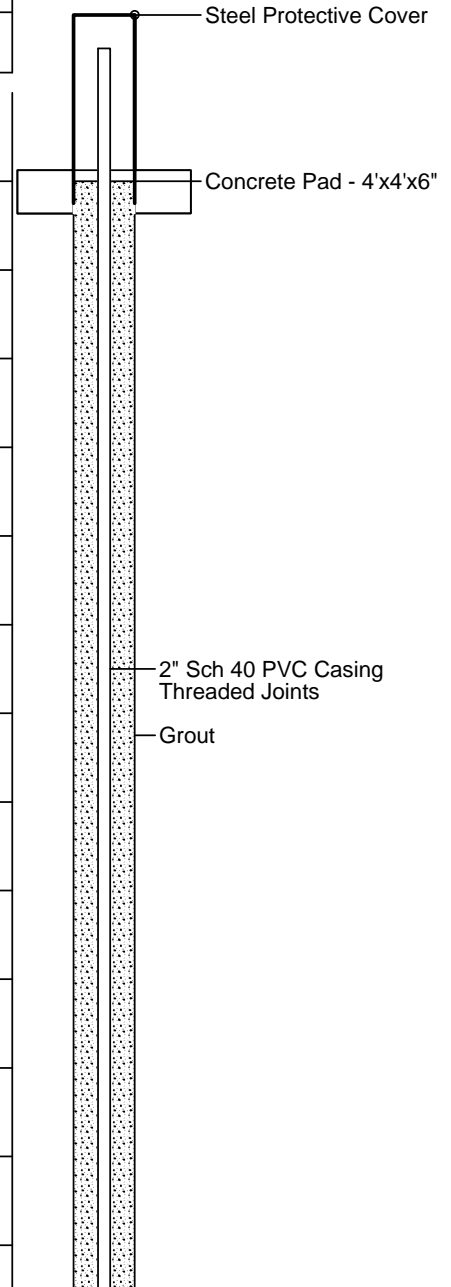
(Sheet 1 of 2)

Elev., TOC (ft.msl) : 6869.95
Elev., PAD (ft. msl) : 6867.41
Elev., GL (ft. msl) : 6866.06
Site Coordinates :
N : 1633681.48
E : 2542981.45

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Water Level Depth to water - 48.80 fbtoc 11-17-14 (not known to be static)
						DESCRIPTION
-2						
-1						
0						
1	6.3			CH	100	CLAY, high, very stiff, damp, brown, no odor,
2						
3	8.3			CH	80	CLAY, SIMILAR TO ABOVE (STA),
4						
5	8.2			CH	70	CLAY, STA,
6						
7	8.6			CH	90	CLAY, STA,
8						
9	8.2			CH	80	CLAY, STA,
10						
11	7.9			CH	90	CLAY, STA, trace silt,
12						
13	7.8			CH	90	CLAY, high, very stiff, damp, brown, no odor,
14						
15	6.5			CH	10	CLAY, STA,
16						
17	7.1			CH	80	CLAY, STA,
18						
19	7.6			CL	70	SANDY SILTY CLAY, low, stiff, damp, light brown, no odor, gravel @ base, soft/crumbly 19-19.5' with lesser amount of clay,
20						
21	5.5			CL	80	SILTY CLAY, STA with sand seams/sandstone fro 20.5-22, dry, crumbly,
22						
23	6.4			CL	80	SANDY SILTY CLAY, low, stiff, dry to damp, light brown, no odor,
24						
25	4.8			CL		GRAVELLY CLAY, STA, with gravel,

Completion Results

MKTF-44





Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 50'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/12/2014

MKTF-44

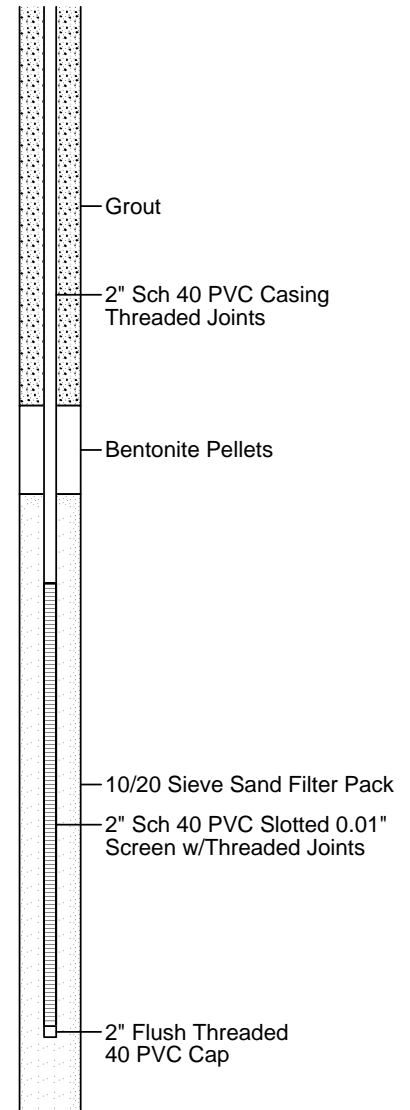
(Sheet 2 of 2)

Elev., TOC (ft.msl) : 6869.95
Elev., PAD (ft. msl) : 6867.41
Elev., GL (ft. msl) : 6866.06
Site Coordinates :
N : 1633681.48
E : 2542981.45

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Water Level
						DESCRIPTION
25	4.8			CL	70	
26						GRAVELLY CLAY, STA, very stiff,
27	3.8			CL	50	
28						SILTY CLAY, low, very stiff, damp/dry, reddish
29	4.8			CL	50	brown, no odor, calcareous,
30						SILTY CLAY, low, firm/crumbly, damp to dry,
31	4.6			CL	90	reddish brown, no odor, calcareous,
32						SILTY CLAY, STA, stiff to very stiff,
33	4.3			CL	80	
34						SILTY CLAY, STA,
35	3.6			CL	80	
36						SILTY CLAY, STA,
37	1.9			CL	10	
38						SILTY CLAY, STA,
39	4.4			CL	20	
40						SILTY CLAY, STA,
41	3.8			CL	80	
42						SILTY CLAY, low, very stiff, crumbly, damp to
43	3.8			CL	20	dry, reddish brown, no odor,
44						SILTY CLAY, STA,
45	3.9			CL	60	
46						SILTY CLAY, STA,
47	3.8			CL	40	
48						SILTY CLAY, STA,
49	3.7			CL	20	
50						
51						
52						

Completion Results

MKTF-44



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Appendix B

Investigation Derived Waste Management Plan

Investigation Derived Waste (IDW) Management Plan

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

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

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

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

Appendix C

Well Development and Purging Procedures

Well Development

All monitoring wells will be developed to create an effective filter pack around the well screen, correct damage to the formation caused by drilling, remove fine particles from the formation near the borehole, and assist in restoring the natural water quality of the aquifer in the vicinity of the well. Newly installed monitoring wells will not be developed for at least 48 hours after the surface pad and outer protective casing are installed. This will allow sufficient time for the well materials to cure before the development procedures are initiated. A new monitoring well will be developed until the column of water in the well is free of visible sediment, and the pH, temperature, turbidity, and specific conductivity have stabilized. In most cases, the above requirements can be satisfied. However, in some cases, the pH, temperature, and specific conductivity may stabilize but the water remains turbid. In this case, continuous flushing may be necessary to complete the well development. If the well is pumped dry, the water level will be allowed to sufficiently recover before the next development period is initiated. The common methods used for developing wells include:

- (1) pumping and over-pumping;
- (2) backwashing;
- (3) surging (with a surge block);
- (4) bailing;
- (5) jetting; and
- (6) airlift pumping.

These development procedures will be used, either individually or in combination, to achieve the most effective well development. However, the most favorable well development methods include pumping, over-pumping, bailing, surging, or a combination of these methods. Well development methods and equipment that alter the chemical composition of the groundwater will not be used.

Development methods that involve adding water or other fluids to the well or borehole, or that use air to accomplish well development will be avoided, if possible. Approval will be obtained from the NMED prior to introducing air, water, or other fluids into the well for the purpose of well development. If water is introduced to a borehole during well drilling and completion, then the same or greater volume of water will be removed from the well during development. In addition, the volume of water withdrawn from a well during development will be recorded, and best efforts will be used to avoid pumping wells dry during development activities.

Well Purging

All zones in each monitoring well will be purged by removing groundwater prior to sampling and in order to ensure that formation water is being sampled. Purge volumes will be determined by monitoring, at a minimum, groundwater pH, specific conductance, dissolved oxygen concentrations, turbidity, redox potential, and temperature during purging of volumes and at measurement intervals of not less than $\frac{1}{4}$ the pre-purge well volume. The groundwater quality parameters and fluid levels will be measured using a YSI Professional Plus Multiparameter Meter, YSI Water Quality Sonde, Hach Portable Turbidimeter, and a Geotech Interface Meter. The volume of groundwater purged, the instruments used, and the readings obtained at each interval will be recorded on the field monitoring log. In general, water samples may be obtained from the well after the measured parameters of the purge water have stabilized to within ten percent for three consecutive measurements. Well purging

may also be conducted in accordance with the NMED's Position Paper "Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring" (October 30, 2001). If necessary, a written request for a variance from the described methods of well purging for individual wells may be submitted to NMED no later than 90 days prior to scheduled sampling activities.

Appendix D

Photos



Photo #1 – Looking north across east end of apron surrounding Truck Loading Rack.



Photo #2 – Looking west across south end of apron surrounding Truck Loading Rack.



Photo #3 – Looking north across northeastern portion of apron surrounding Truck Loading Rack.



Photo #4 – Looking south-southeast across east side of apron surrounding Truck Loading Rack.



Photo #5 – Looking north at Ethanol and Crude Oil Unloading Rack.



Photo #6 – Looking southwest at Ethanol and Crude Oil Unloading Rack



Photo #7 – Looking southwest at loading bay 4 on north end of Truck Loading Rack.



Photo 7a – Closeup view of sump in loading bay 4.



Photo 8 – Looking west at loading bays 3 and 5



Photo 8a – Looking west at bays 3 and 5



Photo 9 – Looking west at loading bay 2.



Photo 9a – Close up view of sump in loading bay 2.



Photo 10 – Looking west at loading bay 1 on south end of Truck Loading Rack.



Photo 10a – Closeup view of drain in loading bay 1.



MICHELLE LUJAN GRISHAM
Governor

HOWIE C. MORALES
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6313
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov



JAMES C. KENNEY
Cabinet Secretary Designate

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 31, 2019

John Moore
Environmental Superintendent
Western Refining Southwest Inc., Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

**RE: DISAPPROVAL
INVESTIGATION WORK PLAN AREA OF CONCERN 35
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY
EPA ID# NMD000333211
HWB-WRG-18-010**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed the *Investigation Work Plan Area of Concern 35* (Work Plan), dated August 2018, submitted on behalf of Western Refining Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Disapproval with the following comments.

The Work Plan was submitted based on the updated schedule agreed to in the RCRA Permit Table E-2 (Corrective Action Submittal Schedule). The required submittal date was August 30, 2018. The Work Plan was received September 19, 2018. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 through 7, 912, 913, 1001, and 1002).

Comment 1

The Permittee is careful to point out several times in the Work Plan that no waste material was historically handled at these units. The facility is not permitted to handle waste materials. These units and others listed in the Permittee's RCRA Permit under corrective action are listed because there is a history of handling material that may contain listed hazardous waste or hazardous constituents which have or may have, during the unit's use, been released to the environment.

Comment 2

In the Background, Section 2.1 (Main Truck Loading Rack Area), the Permittee lists two recent releases and states, “[t]here have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies.” There is a historical lack of follow up regarding cleanup of releases; therefore, it is not always clear if or when releases were fully addressed. For instance, the release notification form for the December 23, 2009 release of ultra-low sulfur diesel from the leaking underground pipe at the west end of the main loading rack indicated that the release affected an adjacent field, stating, “[i]n further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off [sic] in accordance with applicable regulations.” There was no report that provided information on soil disposal or confirmation sampling related to this release. Revise this section to more accurately describe the cleanup or lack thereof of releases.

Comment 3

Section 2.3 (Additive Tank Farm Loading Rack) states that methyl tert butyl ether (MTBE) is not and has not been stored in these tanks. Based on Figure 5 (MTBE Concentration Map March 2015) the greatest concentration of MTBE in groundwater appears to be near the Additive Tank Farm/Loading Rack and the Main Truck Loading Rack. Since MTBE was added to fuel as an anti-knocking agent, it is likely that releases occurred at the Main Truck Loading Rack during fuel transfer. Units where fuel loading or unloading occurs can be a source of contaminants over time because of small releases or steady, but small leakage that can contaminate soils. Releases are not limited to tank leaks that may contribute to releases to the environment. No revision necessary; however, when planning investigations, the Permittee must take into account that tanks are not the only potential contaminant source.

Comment 4

The Permittee must revise the background section of the Work Plan to address the following:

- a) The Permittee must add a discussion regarding the state of the concrete pads at the units. Provide photographs of the concrete pads, as appropriate.
- b) The background section must include information regarding the results of the dye tracer study conducted as part of the Hydrocarbon Seep Interim Measures that included the truck rack.
- c) Additionally, the background section must reference information regarding the Sanitary Lagoon since the Permittee references this Work Plan in the Sanitary Lagoon Investigation Work Plan, dated October 2018 and states that the “Area A” referenced therein will be investigated as part of this Work Plan.
- d) The Permittee proposed to install three groundwater monitoring wells in the *Investigation Work Plan Up-gradient MKTF Wells*, dated August 2018. One of the proposed wells is located at the southern boundary of AOC 35. In the revised Work Plan, reference the

work plan to indicate that a related groundwater investigation is concurrently proposed in the vicinity of AOC 35.

Comment 5

In Section 4.1 (AOC 35 Investigation) the Permittee states, “[t]wo new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18.” The Permittee includes a similar proposal to install additional wells near MKTF-17 and MKTF-18 in the *Work Plan 2015 Annual Groundwater Report Comments*, dated October 2018; however, the proposed locations are different. Clarify if the Permittee plans to install two sets of additional borings near the MKTF-17 and MKTF-18 wells or if one set can satisfy the requirements included in NMED’s comments regarding the 2015 Groundwater Monitoring Report and for this Work Plan.

Comment 6

In Section 4.1 (AOC 35 Investigation) the Permittee states, “[e]ach well will be screened in the upper-most saturated interval, which based on the borings logs from MKTF-17 and MKTF-18 should be encountered within 8 feet and 10 feet below ground level (bgl), respectively.” Section 4.2.1 (Drilling Activities) also states that slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet. The 2017 depth-to-water (DTW) measurements indicate that the groundwater depths are deeper than nine feet below ground surface (bgs) in well MKTF-17. The well placed next to MKTF-17 must be installed deeper than ten feet bgs. Revise the Work Plan accordingly. In addition, all proposed wells must be installed to accommodate the decreasing trend in groundwater elevations in recent years (e.g., deeper total depths, longer screened intervals).

Comment 7

In Section 4.2 (Soil Sample Field Screening and Logging) the Permittee states, “[d]iscrete soil samples will be retained for laboratory analyses from within the following intervals: 0.0-0.5 feet (at soil borings with evidence of impacts near the land surface);” The Permittee must collect surface soil samples even if there is no evidence of impacts. If the surface is covered with gravel, the Permittee must move the gravel and collect a sample from the surface directly below the gravel and note that gravel was removed to collect a surface soil sample.

Comment 8

The Permittee discusses drilling methods in Section 4 (Scope of Services), but does not include methods and procedures used for sample collection. For example, describe how soil samples obtained for laboratory analysis will be collected from the hand auger and from the macrocore or dual tube used for geoprobe sampling. Include this information in the revised Work Plan.

Comment 9

In Section 4.3 (Groundwater Sample Collection) the Permittee states, “[g]roundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposal bailers... Sample collection methods will be documented in the field monitoring reports.” Prior to collection of groundwater samples for laboratory analyses, the Permittee must measure DTW and the total depths of each well, and collect field groundwater

quality data (e.g., dissolved oxygen, pH, temperature, conductivity, redox potential, turbidity) during well purging. Include descriptions of the field procedures in the revised Work Plan.

Comment 10

In Section 4.6 (Chemical Analyses), the Permittee states, “[g]roundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).” The groundwater samples must also be analyzed for nitrate and nitrite because of potential wastewater discharges at the site. Include the nitrate and nitrite analyses for groundwater samples in the revised Work Plan.

Comment 11

So many of the MKTF wells contain separate phase hydrocarbons (SPH) that the representation of benzene and MTBE concentrations in Figure 4 (Benzene Concentration Map March 2015) and Figure 5 (MTBE Concentration Map March 2015) may not be accurate. The Permittee recently indicated the SPH in wells has significantly decreased over time. Present concentration maps with updated SPH thickness and groundwater concentrations of benzene and MTBE in the revised Report for comparison.

Comment 12

In Figure 6 (Proposed Sampling Locations), many of the proposed soil boring locations are placed along an oily water drain line from the laboratory, what appears to be a drain line along the marketing tank farm tanks, and the sanitary sewer line. The Permittee must move some of the proposed borings to locations where transfers of materials occur. While leaks from the sewer system are a concern, releases from the units can occur from other points as well. For instance, at the Retail Tank Farm, the pipe rack to the east of the tanks could be a potential contaminant source, boring SB32/MKTF-16 exhibits a concentration of 19 mg/L of benzene, which appears to be one of the highest concentrations of benzene in groundwater and is located to the east of those racks. Revise the Work Plan to add or adjust proposed boring locations to account for sources other than the sewer system.

The Permittee must address all comments in this Disapproval letter and submit a revised Work Plan. Provide NMED with two hard copies with labeled electronic versions of the revised Work Plan. Include a red-line strikeout version, in electronic format, showing where all the revisions to the Work Plan have been made. The revised Work Plan must be accompanied with a response letter that details where all the revisions to the Work Plan have been made, cross-referencing NMED's numbered comments. The revised Work Plan must be submitted to NMED by no later than **July 27, 2019**.

Mr. Moore
January 31, 2019
Page 5

If you have any questions regarding this letter, please contact Kristen Van Horn at (505) 476-6046.

Sincerely,



John E. Kielling
Chief
Hazardous Waste Bureau

cc: D. Cobrainm NMED HWB
K. Van Horn, NMED HWB
M. Suzuki, NMED HWB
C. Chavez, EMNRD OCD
B. Moore, Marathon
L. King, EPA

File: WRG 2019 and Reading
HWB-WRG-18-010

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Hand delivered – September 19, 2018

New Mexico Environment Department (NMED)
Hazardous Waste Bureau
Attn: Mr. John E. Kielling, Chief
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505-6303

RE: INVESTIGATIVE WORK PLAN FOR AOC 35
WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY
EPA ID# NMD000333211

Dear Sir:

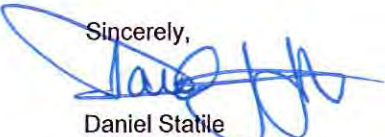
Pursuant to the terms and conditions of the Western Refining Southwest, Inc., Gallup Refinery's ("Gallup Refinery") Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 – 7, 912, 913, 1001, and 1002). Gallup Refinery is submitting two hard copies and an electronic format via CD. Also, the New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division (OCD) has been provided a copy of this information for their consideration.

If you have any questions about the information being provided herein, please do not hesitate to contact Brian Moore by telephone at (505) 726-9745 or by email at Brian.Moore@andeavor.com.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Daniel Statile
Vice President Refining
Western Refining Southwest, Inc. – Gallup Refinery

Enclosure

cc: C. Chavez (OCD via electronic submittal)

INVESTIGATION WORK PLAN AREA OF CONCERN 35



Gallup Refinery
Western Refining Southwest, Inc.
Gallup, New Mexico

EPA ID# NMD000333211

AUGUST 2018

A handwritten signature in black ink, appearing to read 'Scott Crouch', written over a horizontal line.

Scott Crouch
Senior Geologist



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Appendix A Boring Logs

Appendix B Investigation Derived Waste Management Plan

List of Acronyms

benzene, toluene, ethylbenzene, and xylene (BTEX)
Code of Federal Regulations (CFR)
Contract Laboratory Program (CLP)
data quality objective (DQO)
diesel range organics (DRO)
dilution attenuation factor (DAF)
Environmental Protection Agency (EPA)
investigation derived waste (IDW)
Maximum Contaminant Level (MCL)
mean sea level (msl)
monitoring well (MW)
motor oil range organics (MRO)
methyl tert butyl ether (MTBE)
New Mexico Administrative Code (NMAC)
New Mexico Environment Department (NMED)
New Mexico Oil Conservation Division (NMOCD)
photoionization detector (PID)
polynuclear aromatic hydrocarbon (PAH)
polyvinyl chloride (PVC)
quality assurance/quality control (QA/QC)
Resource Conservation and Recovery Act (RCRA)
separate-phase hydrocarbon (SPH)
semi-volatile organic compound (SVOC)
Solid Waste Management Unit (SWMU)
total petroleum hydrocarbon (TPH)
toxicity characteristic leaching procedure (TCLP)
volatile organic compound (VOC)

Executive Summary

The Gallup Refinery, which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Pursuant to the terms and conditions of the facility Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this Investigation Work Plan has been prepared for Area of Concern (AOC) 35. AOC 35 includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm/loading rack, and the retail tank farm (Tanks 1 – 7, 912, 913, 1001, and 1002).

Groundwater samples collected from wells near the retail tank farm [also known as the marketing tank farm (MKTF)] (e.g., MKTF-07, -08, -09, -10, -16, and -18) have shown impacts from petroleum hydrocarbons, to include such constituents as benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert butyl ether (MTBE) above screening levels. Similar impacts also extent to the south near the main truck loading racks as shown in groundwater samples collected from this area. This investigation will focus on identification of potential source areas that have in the past or are continuing to contribute to the observed impacts to groundwater. Twenty soil borings are proposed to evaluate the presence of source areas. Soil samples will be collected from each boring and a groundwater sample will be collected if groundwater is encountered. In addition, two shallow permanent monitoring wells will be installed to evaluate conditions in the perched groundwater zone previously identified on the western side of the main truck loading rack. The soil and groundwater samples will be analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), Skinner List metals, iron, and manganese. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Section 1

Introduction

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

The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck. Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

This investigation work plan addresses AOC 35, which includes the main truck loading rack, crude slop and ethanol unloading facility, additive tank farm loading rack, and the retail tank farm (tanks 1 – 7, 912, 913, 1001, and 1002) (Figure 2). The purposes of this investigation are to:

- determine the source of the elevated concentrations of petroleum hydrocarbon constituents (e.g., BTEX) and MTBE detected in groundwater samples collected from the MKTF wells in the area of AOC 35; and
- evaluate the groundwater quality in the shallow perched zone that has been observed in MKTF-7, -17 and -18 at the base of the surficial fill material.

The investigation activities will be conducted in accordance with Section IV.H.5 of the Post-Closure Care Permit.

Section 2 Background

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

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

2.1 Main Truck Loading Rack Area

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

There have been documented releases at the loading rack that were discovered at the time of the release and addressed, including notification to the appropriate regulatory agencies. On December 4, 2007, approximately 6,800 gallons of gasoline was spilled when a truck driver erroneously opened a valve on a tanker truck (Release Notification dated Dec. 7, 2007) and on December 23, 2009, approximately 44 barrels (1,848 gallons) of diesel fuel was spilled from a leaking underground pipeline at the west end of the loading rack (Release Notification dated Dec. 29, 2009).

As part of the Interim Measures to address the Hydrocarbon Seep Area, which is located to the northwest of the main loading racks, new monitoring wells were installed near the loading racks. These wells are identified as the MKTF wells. In addition, during the field reconnaissance process to locate potential drilling locations near the main loading racks, an unidentified well was located to the west of the main loading racks and it was subsequently numbered as MKTF-45 (Figure 3). The well is measured as being 30.24 feet deep and has contained separate-phase hydrocarbon (SPH) since it was first gauged in 2014. It appears the well was installed to help address historic releases near the main loading racks; however, no documentation of this has been found in site records despite

repeated attempts to locate any information on the well. Well MKTF-36 was installed immediately down-gradient of the loading racks in November 2014 and SPH was identified while drilling the boring. Fluid level measurements for wells near AOC 35 are provided in Table 1. Boring logs for the nearby wells are provided in Appendix A. Chemical analyses of groundwater samples collected in the area of AOC 35 are summarized in Table 2. Figures 4 and 5 show the distribution of benzene and MTBE in groundwater, which appear to have a source in the vicinity of the main loading racks.

Underground piping near the main loading racks includes a sanitary sewer drain line running east to west to the north of the loading rack (Figure 6). In addition, there are oily water drain lines (process sewer) that run from the lab building to the loading rack and then the line continues to the north after picking up discharge from sumps located at the loading rack. The sumps collect small spills that may occur on the loading rack concrete apron and de minimis volumes of product that drained from loading hoses. The sump is no longer use to collect fluids from loading hoses and would only serve as an emergency drain in the case of a release during loading operations.

2.2 Crude Slop and Ethanol Unloading Facility

This facility is located approximately 80 feet northwest of the main loading racks and is used to unload recovered oil and transmix that may be reclaimed from various locations within the refinery. The area is also used to unload ethanol that is delivered to the refinery via truck. It was put into service sometime before the 1990s and is still in operation. The unloading area is approximately 15 feet by 40 feet and includes overhead pipelines and associated connections to support unloading operations. The pad drains to a sump, which is connected to the process sewer (Figure 6).

2.3 Additive Tank Farm Loading Rack

Petroleum product additives are stored in aboveground tanks at this location (Figure 2). These additive tanks are all small aboveground tanks located approximately 150 feet west of the main loading rack. The additive tanks were installed prior to 1997, but the exact date is uncertain. No wastes are managed and only products (i.e., fuel additives) are managed in this area. Methyl tert butyl ether (MTBE) is not and has not been stored in these tanks.

2.4 Retail Tank Farm

The retail tank farm is located approximately 150 feet northwest of the main loading racks and includes Tanks 1 – 7, 912, 913, 1001, and 1002 (Figure 2). Retail petroleum products (e.g.,

gasoline, diesel, and biodiesel) are stored in these tanks and MTBE was stored in Tank 6 prior to discontinuation of its use in 2006. Ethanol has been stored in Tank 6 since the use of MTBE was discontinued. The first tanks were constructed in 1963 and have had routine inspections both external and internal since construction. Details of the tanks size, materials, construction dates, etc. are provided in Table 3.

The fuels are delivered to the marketing tanks via pipelines that run primarily aboveground. Ethanol is unloaded at the adjacent ethanol unloading facility and transferred to Tanks 5 and 6 via aboveground lines. The fuels and additives (i.e., ethanol) are subsequently transferred to the main loading racks via aboveground pipelines where they are loaded into tanker trucks.

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

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

2.5 Prior Investigations

The earliest investigation in the area is referenced in *Comprehensive Facility Investigation Work Plan* that was prepared for the NMOCD in June 1997 (Giant Refining Company, 1997). The work plan references “groundwater impact area #4” as being in the vicinity of the truck loading rack. It is stated that the source of the impact is a spill of hydrocarbon that occurred in the early 1980s. The area is further described as having residual hydrocarbons present at low levels and declining through natural biodegradation. No quantitative information could be located to substantiate the description of the conditions provided in the 1997 Work Plan.

As discussed above in Section 2.1, groundwater conditions in the vicinity of AOC 35 were recently investigated as part of the interim measures effort for the Hydrocarbon Seep Area (DiSorbo, 2016). Figure 6 shows the location of numerous monitoring wells (MKTF designation) in and around AOC 35. These wells are primarily screened across the contact of the Chinle Group (Petrified Forest

Formation) that forms an aquitard and the overlying alluvial/fluvial deposits (Quaternary Alluvium). Groundwater samples collected from the existing MKTF wells have shown the presence of petroleum hydrocarbons, including constituents such as BTEX and related constituents (e.g., MTBE) at concentrations above screening levels. These analyses are summarized in Table 2. The distribution of these constituents as shown on Figures 3 and 4 indicates a source of groundwater contamination from within AOC 35.

Section 3

Site Conditions

3.1 Surface Conditions

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

Regional surface water features include the refinery evaporation ponds and a number of small ponds (one cattle water pond and two small unnamed spring fed ponds). The site is located in the Puerco River Valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Puerco River. The Puerco River continues to the west to the confluence with the Little Colorado River. The South Fork of the Puerco River is intermittent and retains flow only during and immediately following precipitation events.

3.2 Subsurface Conditions

The shallow subsurface soils consist of fluvial and alluvial deposits comprised of clay and silt with minor inter-bedded sand layers. Very low permeability bedrock (e.g., claystones and siltstones) underlie the surface soils and effectively form an aquitard. The Chinle Group, which is Upper Triassic, crops out over a large area on the southern margin of the San Juan Basin. The uppermost recognized local Formation is the Petrified Forest Formation and the Sonsela Sandstone Bed is the uppermost recognized regional aquifer. Aquifer test of the Sonsela Bed northeast of Prewitt indicated a transmissivity of greater than 100 ft²/day (Stone and others, 1983). The Sonsela Sandstone's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the refinery. The Sonsela Sandstone forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the refinery property.

The diverse properties and complex, irregular stratigraphy of the surface soils across the site cause a wide range of hydraulic conductivity ranging from less than 10⁻² cm/sec for gravel like sands immediately overlying the Petrified Forest Formation to 10⁻⁸ cm/sec in the clay soils located near the surface (Western, 2009). Generally, shallow groundwater at the refinery follows the upper contact of

the Petrified Forest Formation with prevailing flow from the southeast to the northwest, although localized areas may have varying flow directions (Figure 3). Fluid level measurements for wells in the area of AOC 35 are included in Table 1.

Section 4

Scope of Services

The site investigation of soil and groundwater will be conducted to identify potential sources within the area of AOC 35. Additional shallow monitoring wells will be installed to evaluate a shallow perched zone identified to the west of the main loading rack. The investigation will commence upon approval of this investigation work plan by NMED.

4.1 AOC 35 Investigation

An investigation of soil and groundwater conditions in AOC 35 is proposed to determine the source of BTEX and MTBE that has been detected in groundwater samples collected from monitoring wells in the vicinity of AOC 35. The boring locations identified on Figure 6 were selected based on field reconnaissance to identify visibly stained soils, water drains at aboveground storage tanks, and sumps and related features. In addition, borings are located along an underground sanitary sewer pipeline and underground oily water drain lines identified from site records.

All soil borings will be extended to the depth of refusal or to the top of bedrock, whichever occurs first. If saturation is encountered, then a groundwater sample will be collected.

Two new shallow monitoring wells are proposed; one adjacent to existing monitoring well MKTF-17 and the second near MKTF-18. Each well will be screened in the upper-most saturated interval, which based on the borings logs from MKTF-17 and MKTF-18 should be encountered within 8 feet and 10 feet below ground level (bgl), respectively. Borings logs for MKTF-17 and MKTF-18 are included in Appendix A.

4.2 Soil Sample Field Screening and Logging

Samples obtained from the soil borings will be screened in the field on 2.0 foot intervals for evidence of contaminants. Field screening results will be recorded on the exploratory boring logs. Field screening results will be used to aid in the possible selection of soil samples for laboratory analysis. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds.

Visual screening includes examination of soil samples for evidence of staining caused by petroleum-related compounds or other substances that may cause staining of natural soils such as elemental

sulfur or cyanide compounds. Headspace vapor screening targets volatile organic compounds and involves placing a soil sample in a plastic sample bag or a foil sealed container allowing space for ambient air. The container will be sealed and then shaken gently to expose the soil to the air trapped in the container. The sealed container will be allowed to rest for a minimum of 5 minutes while vapors equilibrate. Vapors present within the sample bag's headspace will then be measured by inserting the probe of the instrument in a small opening in the bag or through the foil. The maximum value and the ambient air temperature will be recorded on the field boring or test pit log for each sample.

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

Discrete soil samples will be retained for laboratory analyses from within the following intervals:

- 0.0-0.5 feet (at soil borings with evidence of impacts near the land surface);
- 2.0-2.5 feet or the top of native soil if identifiable (at all soil borings);
- > 2.0 feet (from the interval in each soil boring with the greatest apparent degree of contamination, based on field observations and field screening);
- From the bottom of each borehole (all soil borings);
- From the 0.5 foot interval at the top of saturation (applicable only to borings that reach saturation); and
- Any additional intervals as determined based on field screening results.

The physical characteristics of the samples (such as mineralogy, ASTM soil classification, moisture content, texture, color, presence of stains or odors, and/or field screening results), depth where each sample was obtained, method of sample collection, and other observations will be recorded in the field log by a qualified geologist or engineer. Detailed logs of each boring will be completed in the field by a qualified engineer or geologist. Additional information, such as the presence of water-bearing zones and any unusual or noticeable conditions encountered during drilling, will be recorded on the logs.

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

- Field duplicates will be collected at a rate of 10 percent; and
- Equipment blanks will be collected from all sampling apparatus at a frequency of one per day.

4.2.1 Drilling Activities

Due to physical access limitations (e.g., near the tank water draws) and high traffic concerns in other locations, the soil borings will be completed using hand augers or a geo-probe using a macrocore for shallow intervals, converting to dual tube for deeper intervals. Both soil and groundwater samples can be collected using the dual tube technology. The two new permanent wells will be installed using hollow-stem augers. The drilling equipment will be properly decontaminated before drilling each boring. The NMED will be notified as early as practicable if conditions arise or are encountered that do not allow the advancement of borings to the specified depths or at planned sampling locations. Appropriate actions (e.g., installation of protective surface casing or relocation of borings to a less threatening location) will be taken to minimize any negative impacts from investigative borings. Slotted (0.01 inch) PVC well screen will be placed at the bottom of the borings at the two permanent wells and will extend for a maximum of 10 feet. A 10/20 sand filter pack will be installed to a minimum of one foot over the top of the well screen.

4.3 Groundwater Sample Collection

Groundwater samples will be collected from the new monitoring wells within 24 hours of the completion of well purging using disposal bailers. Alternatively, well sampling may also be conducted in accordance with the NMED's Position Paper *Use of Low-Flow and other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (October 30, 2001, as updated). Sample collection methods will be documented in the field monitoring reports. The samples will be transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample handling and chain-of-custody procedures will be in accordance with the procedures presented below in Section 4.4.1.

Groundwater samples intended for metals analysis will be submitted to the laboratory as both total and dissolved metals samples. QA/QC samples will be collected to monitor the validity of the groundwater sample collection procedures as follows:

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- Field duplicate water samples will be obtained at a frequency of ten percent, with a minimum, of one duplicate sample per sampling event;
 - Equipment rinsate blanks will be obtained for chemical analysis at the rate of ten percent or a minimum of one rinsate blank per sampling day. Equipment rinsate blanks will be collected at a rate of one per sampling day if disposable sampling equipment is used. Rinsate samples will be generated by rinsing deionized water through unused or decontaminated sampling equipment. The rinsate sample will be placed in the appropriate sample container and submitted with the groundwater samples to the analytical laboratory for the appropriate analyses; and
 - Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses. Trip blanks will consist of a sample of analyte-free deionized water prepared by the laboratory and placed in an appropriate sample container. The trip blank will be prepared by the analytical laboratory prior to the sampling event and will be kept with the shipping containers and placed with other water samples obtained from the site each day. Trip blanks will be analyzed at a frequency of one for each shipping container of groundwater samples to be analyzed for VOCs.

4.3.1 Sample Handling

At a minimum, the following procedures will be used at all times when collecting samples during investigation, corrective action, and monitoring activities:

1. Neoprene, nitrile, or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample;
2. All samples collected of each medium for chemical analysis will be transferred into clean sample containers supplied by the project analytical laboratory with the exception of soil, rock, and sediment samples obtained in Encore® samplers. Sample container volumes and preservation methods will be in accordance with the most recent standard EPA and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis; and
3. Sample labels and documentation will be completed for each sample following procedures discussed below. Immediately after the samples are collected, they will be stored in a cooler with ice or other appropriate storage method until they are delivered to the analytical laboratory. Standard chain-of-custody procedures, as described below, will

be followed for all samples collected. All samples will be submitted to the laboratory soon enough to allow the laboratory to conduct the analyses within the method holding times.

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

1. Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site.
2. Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage. Temperature blanks will be included with each shipping container.
3. Each cooler or other container will be delivered directly to the analytical laboratory.
4. Glass bottles will be separated in the shipping container by cushioning material to prevent breakage.
5. Plastic containers will be protected from possible puncture during shipping using cushioning material.
6. The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory.
7. Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol.
8. Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.
9. Upon receipt of the samples at the laboratory, the custody seals will be broken, the chain-of-custody form will be signed as received by the laboratory, and the conditions of the samples will be recorded on the form. The original chain-of-custody form will remain with the laboratory and copies will be returned to the relinquishing party.
10. Copies of all chain-of-custody forms generated as part of sampling activities will be maintained on-site.

4.4 Collection and Management of Investigation Derived Waste

Drill cuttings, excess sample material and decontamination fluids, and all other investigation derived waste (IDW) associated with soil borings will be contained and characterized using methods based on

the boring location, boring depth, drilling method, and type of contaminants suspected or encountered. All purged groundwater and decontamination water will be characterized prior to disposal unless it is disposed in the refinery wastewater treatment system upstream of the API Separator. An IDW management plan is included as Appendix B.

Field equipment requiring calibration will be calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. At a minimum, calibration checks will be conducted daily, or at other intervals approved by the Department, and the instruments will be recalibrated, if necessary. Calibration measurements will be recorded in the daily field logs. If field equipment becomes inoperable, its use will be discontinued until the necessary repairs are made. In the interim, a properly calibrated replacement instrument will be used.

4.5 Documentation of Field Activities

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

1. Site or unit designation;
2. Date;
3. Time of arrival and departure;
4. Field investigation team members including subcontractors and visitors;
5. Weather conditions;
6. Daily activities and times conducted;
7. Observations;
8. Record of samples collected with sample designations and locations specified;
9. Photographic log, as appropriate;
10. Field monitoring data, including health and safety monitoring;
11. Equipment used and calibration records, if appropriate;
12. List of additional data sheets and maps completed;
13. An inventory of the waste generated and the method of storage or disposal; and
14. Signature of personnel completing the field record.

4.6 Chemical Analyses

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

Groundwater and soil samples will be analyzed by the following methods:

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

Groundwater and soil samples will also be analyzed for the following Skinner List metals and iron and manganese using the indicated analytical methods shown. The groundwater samples collected for metals analysis will be analyzed for total and dissolved concentrations. Groundwater samples will also be analyzed for major anions (e.g., carbonate, bicarbonate, sulfate, fluoride and chloride).

Inorganic Analytical Methods

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

Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020

Groundwater field measurements will be obtained for pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, and temperature.

4.7 Data Quality Objectives

The Data Quality Objectives (DQOs) were developed to ensure that newly collected data are of sufficient quality and quantity to address the project goals, including Quality Assurance/Quality Control (QA/QC) issues (EPA, 2006). The project goals are established to determine and evaluate the presence, nature, and extent of releases of contaminants at specified SWMUs. The type of data required to meet the project goals includes chemical analyses of soil and groundwater to determine if there has been a release of contaminants.

The quantity of data is location specific and is based on the historical operations at individual locations. Method detection limits should be 20% or less of the applicable background levels, cleanup standards and screening levels.

Additional DQOs include precision, accuracy, representativeness, completeness, and comparability. Precision is a measurement of the reproducibility of measurements under a given set of circumstances and is commonly stated in terms of standard deviation or coefficient of variation (EPA, 1987). Precision is also specific to sampling activities and analytical performance. Sampling precision will be evaluated through the analyses of duplicate field samples and laboratory replicates will be utilized to assess laboratory precision.

Accuracy is a measurement in the bias of a measurement system and may include many sources of potential error, including the sampling process, field contamination, preservation, handling, sample matrix, sample preparation, and analysis techniques (EPA, 1987). An evaluation of the accuracy will be performed by reviewing the results of field/trip blanks, matrix spikes, and laboratory QC samples.

Representativeness is an expression of the degree to which the data accurately and precisely represent the true environmental conditions. Sample locations and the number of samples have been selected to ensure the data is representative of actual environmental conditions. Based on SWMU specific conditions, this may include either biased (i.e., judgmental) locations/depths or

unbiased (systematic grid samples) locations. In addition, sample collection techniques (e.g., field monitoring and decontamination of sampling equipment) will be utilized to help ensure representative results.

Completeness is defined as the percentage of measurements taken that are actually valid measurements, considering field QA and laboratory QC problems. EPA Contract Laboratory Program (CLP) data has been found to be 80-85% complete on a nationwide basis and this has been extrapolated to indicate that Level III, IV, and V analytical techniques will generate data that are approximately 80% complete (EPA, 1987). As an overall project goal, the completeness goal is 85%; however, some samples may be critical based on location or field screening results and thus a sample-by-sample evaluation will be performed to determine if the completeness goals have been obtained.

Comparability is a qualitative parameter, which expresses the confidence with which one data set can be compared to another. Industry standard sample collection techniques and routine EPA analytical methods will be utilized to help ensure data are comparable to historical and future data. Analytical results will be reported in appropriate units for comparison to historical data and cleanup levels.

Section 5

References

DiSorbo, 2016, Interim Measures Report Hydrocarbon Seep Area, Western Refining Gallup Refinery, p. 15.

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Geoscience Consultants, Ltd, 1985a, Inventory of Solid Waste Management Units, June 14, 1985, p. 22.

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

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Western, 2013, Annual Ground Water Monitoring Report: Gallup Refinery - 2013, p. 225.

Tables

Table 1 Fluid Levels

Table 2 Groundwater Analytical Summary

Table 3 Marketing Tanks Records

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/07/13	01/21/14	MKTF-03	03/02/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.42	1.17	7.59	6,924.10	6925.04	3 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.95	1.30	8.25	6,923.44	6924.48	3 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	6.35	0.80	7.15	6,924.54	6925.18	3 - 18	Chinle/Alluvium Interface
			11/28/17	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	7.00	0.95	7.95	6923.74	6924.50	3 - 18	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-04	03/02/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	8.31	6,925.26	NA	10 - 22	Chinle/Alluvium Interface
			06/07/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	9.28	6,924.29	NA	10 - 22	Chinle/Alluvium Interface
			09/26/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	ND	NA	8.80	6,924.77	NA	10 - 22	Chinle/Alluvium Interface
			11/29/17	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.27	22.30	ND	NA	9.30	6,924.27	NA	10 - 22	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-05	03/02/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.33	0.29	13.62	6,928.60	6928.83	4 - 14	Chinle/Alluvium Interface
			06/07/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.79	0.46	14.25	6,927.97	6928.34	4 - 14	Chinle/Alluvium Interface
			09/26/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.01	0.49	13.50	6,928.72	6929.11	4 - 14	Chinle/Alluvium Interface
			11/28/17	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	13.98	0.77	14.75	6,927.47	6928.09	4 - 14	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-06	03/15/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	15.95	0.10	16.05	6,930.76	6930.84	8 - 20	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.60	0.64	17.24	6,929.57	6930.08	8 - 20	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.01	0.71	16.72	6,930.09	6930.66	8 - 20	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	16.55	1.15	17.70	6,929.11	6930.03	8 - 20	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-07	03/15/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.63	1.97	12.60	6,934.58	6936.16	4 - 14	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.20	1.30	11.50	6,935.68	6936.72	4 - 14	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	9.80	1.30	11.10	6,936.08	6937.12	4 - 14	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	10.40	1.40	11.80	6,935.38	6936.50	4 - 14	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-08	03/15/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	11.99	0.61	12.60	6,934.49	6934.98	8 - 18	Chinle/Alluvium Interface
			06/12/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	11.98	0.42	12.40	6,934.69	6935.03	8 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	12.15	0.45	12.60	6,934.49	6934.85	8 - 18	Chinle/Alluvium Interface
			11/28/17	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	12.68	0.52	13.20	6,933.89	6934.31	8 - 18	Chinle/Alluvium Interface
11/11/13	01/21/14	MKTF-09	03/15/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
			06/12/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.64	6,933.86	NA	7 - 19	Chinle/Alluvium Interface
			09/28/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	ND	NA	12.69	6,933.81	NA	7 - 19	Chinle/Alluvium Interface
			11/29/17	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.75	22.75	ND	NA	13.15	6,933.35	NA	7 - 19	Chinle/Alluvium Interface
10/31/13	01/21/14	MKTF-10	03/02/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.47	6,929.69	NA	7 - 17	Chinle/Alluvium Interface
			06/07/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.02	6,930.14	NA	7 - 17	Chinle/Alluvium Interface
			09/27/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	6.78	6,930.38	NA	7 - 17	Chinle/Alluvium Interface
			11/29/17	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	ND	NA	7.00	6,930.16	NA	7 - 17	Chinle/Alluvium Interface

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/31/13	01/21/14	MKTF-11	03/02/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	6.96	6,924.38	NA	8 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	7.39	6,923.95	NA	8 - 18	Chinle/Alluvium Interface
			09/26/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	6.70	6,924.64	NA	8 - 18	Chinle/Alluvium Interface
			11/29/17	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	ND	NA	8.00	6,923.34	NA	8 - 18	Chinle/Alluvium Interface
11/07/13	01/21/14	MKTF-12	03/15/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	17.75	0.06	17.81	6,924.30	6924.35	12 - 22	Chinle/Alluvium Interface
			06/07/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	18.60	0.19	18.79	6,923.32	6923.47	12 - 22	Chinle/Alluvium Interface
			10/03/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	17.30	0.13	17.43	6,924.68	6924.78	12 - 22	Chinle/Alluvium Interface
			11/27/17	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	18.43	0.13	18.56	6,923.55	6923.65	12 - 22	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-13	03/15/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	ND	NA	12.60	6,922.58	NA	8 - 18	Chinle/Alluvium Interface
			06/07/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	13.35	0.06	13.41	6,921.77	6921.82	8 - 18	Chinle/Alluvium Interface
			10/03/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	11.91	0.03	11.94	6,923.24	6923.26	8 - 18	Chinle/Alluvium Interface
			11/27/17	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	13.14	0.01	13.15	6,922.03	6922.04	8 - 18	Chinle/Alluvium Interface
11/12/13	01/21/14	MKTF-14	03/08/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	5.77	0.98	6.75	6,921.27	6922.05	4 - 14	Chinle/Alluvium Interface
			06/07/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	6.68	0.84	7.52	6,920.50	6921.17	4 - 14	Chinle/Alluvium Interface
			10/03/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	5.70	0.41	6.11	6,921.91	6922.24	4 - 14	Chinle/Alluvium Interface
			11/27/17	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	6.56	0.37	6.93	6,921.09	6921.39	4 - 14	Chinle/Alluvium Interface
10/29/13	01/21/14	MKTF-15	03/02/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	12.15	6,931.33	NA	9 - 19	Chinle/Alluvium Interface
			06/07/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	11.93	6,931.55	NA	9 - 19	Chinle/Alluvium Interface
			09/26/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	12.00	0.10	12.10	6,931.38	6931.46	9 - 19	Chinle/Alluvium Interface
			11/29/17	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	ND	NA	12.13	6,931.35	NA	9 - 19	Chinle/Alluvium Interface
11/07/13	01/21/14	MKTF-16	03/14/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.45	6,943.13	NA	4 - 14	Chinle/Alluvium Interface
			06/07/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	7.66	6,942.92	NA	4 - 14	Chinle/Alluvium Interface
			09/26/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.00	6,942.58	NA	4 - 14	Chinle/Alluvium Interface
			11/28/17	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	ND	NA	8.22	6,942.36	NA	4 - 14	Chinle/Alluvium Interface
11/14/13	01/21/14	MKTF-17	03/08/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	8.20	6,937.56	NA	14 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	9.98	6,935.78	NA	14 - 24	Chinle/Alluvium Interface
			09/26/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	ND	NA	9.33	6,936.43	NA	14 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.11	24.65	ND	NA	13.68	6,932.08	NA	14 - 24	Chinle/Alluvium Interface
11/15/13	01/21/14	MKTF-18	03/01/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	ND	NA	7.81	6,942.84	NA	17 - 27	Chinle/Alluvium Interface
			06/14/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	ND	NA	6.30	6,944.35	NA	17 - 27	Chinle/Alluvium Interface
			09/27/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	6.35	0.02	6.37	6,944.28	6944.30	17 - 27	Chinle/Alluvium Interface
			11/30/17	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	6.29	0.01	6.30	6,944.35	6944.36	17 - 27	Chinle/Alluvium Interface
11/05/13	04/30/14	MKTF-19	03/08/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	9.82	6,934.85	NA	10 - 20	Chinle/Alluvium Interface
			06/14/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	10.58	6,934.09	NA	10 - 20	Chinle/Alluvium Interface
			09/26/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	ND	NA	11.00	6,933.67	NA	10 - 20	Chinle/Alluvium Interface
			11/30/17	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,926.47	18.20	ND	NA	11.70	6,932.97	NA	10 - 20	Chinle/Alluvium Interface
02/10/14	04/30/14	MKTF-20	03/14/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	5.70	6,946.08	NA	2 - 10	Chinle/Alluvium Interface
			06/12/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	5.57	6,946.21	NA	2 - 10	Chinle/Alluvium Interface
			09/26/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	ND	NA	6.23	6,945.55	NA	2 - 10	Chinle/Alluvium Interface
			11/28/17	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,942.20	9.58	ND	NA	6.53	6,945.25	NA	2 - 10	Chinle/Alluvium Interface

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
02/10/14	04/30/14	MKTf-21	03/14/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.50	6,947.07	NA	2 - 10	Chinle/Alluvium Interface
			06/21/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.09	6,947.48	NA	2 - 10	Chinle/Alluvium Interface
			09/26/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	ND	NA	5.69	6,946.88	NA	2 - 10	Chinle/Alluvium Interface
			11/28/17	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,943.76	8.81	ND	NA	6.25	6,946.32	NA	2 - 10	Chinle/Alluvium Interface
03/31/14	04/30/14	MKTf-34	03/01/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	16.50	6,938.85	NA	9 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	17.63	6,927.72	NA	9 - 24	Chinle/Alluvium Interface
			09/26/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	ND	NA	17.62	6,927.73	NA	9 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.65	27.70	ND	NA	18.03	6,927.32	NA	9 - 24	Chinle/Alluvium Interface
11/19/14	12/16/14	MKTf-35	03/01/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	6.18	6,945.47	NA	6 - 16	Chinle/Alluvium Interface
			06/14/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	7.12	6,944.53	NA	6 - 16	Chinle/Alluvium Interface
			09/27/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	7.70	6,943.95	NA	6 - 16	Chinle/Alluvium Interface
			11/30/17	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	ND	NA	8.15	6,943.50	NA	6 - 16	Chinle/Alluvium Interface
11/19/14	12/16/14	MKTf-36	03/01/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.56	6,944.56	NA	5 15	Chinle/Alluvium Interface
			06/14/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.40	6,944.72	NA	5 15	Chinle/Alluvium Interface
			09/27/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	5.80	6,944.32	NA	5 15	Chinle/Alluvium Interface
			11/30/17	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	ND	NA	6.45	6,943.67	NA	5 15	Chinle/Alluvium Interface
11/18/14	12/16/14	MKTf-37	03/01/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	ND	NA	6.90	6,951.97	NA	4 - 24	Chinle/Alluvium Interface
			06/14/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	7.20	0.04	7.24	6,951.63	6951.66	4 - 24	Chinle/Alluvium Interface
			09/27/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	7.83	0.06	7.89	6,950.98	6951.03	4 - 24	Chinle/Alluvium Interface
			11/30/17	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	8.39	0.02	8.41	6,950.46	6950.48	4 - 24	Chinle/Alluvium Interface
11/20/14	12/16/14	MKTf-38	03/14/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.41	6,948.48	NA	5 - 20	Chinle/Alluvium Interface
			06/21/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.40	6,948.49	NA	5 - 20	Chinle/Alluvium Interface
			09/28/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	6.32	6,948.57	NA	5 - 20	Chinle/Alluvium Interface
			11/30/17	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	ND	NA	7.83	6,947.06	NA	5 - 20	Chinle/Alluvium Interface
11/14/14	12/16/14	MKTf-39	03/14/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	6.44	6,947.31	NA	5 - 15	Chinle/Alluvium Interface
			06/08/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	6.25	6,947.50	NA	5 - 15	Chinle/Alluvium Interface
			09/28/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	ND	NA	7.32	6,946.43	NA	5 - 15	Chinle/Alluvium Interface
			11/28/17	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.57	15.18	ND	NA	7.55	6,946.20	NA	5 - 15	Chinle/Alluvium Interface
Pre-existing	12/16/14	MKTf-45	03/01/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	10.32	0.31	10.63	6,938.96	6939.21	Unknown	Chinle/Alluvium Interface
			06/14/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.50	0.50	12.00	6,937.59	6937.99	Unknown	Chinle/Alluvium Interface
			10/03/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.48	0.53	12.01	6,937.58	6938.00	Unknown	Chinle/Alluvium Interface
			11/30/17	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	12.76	0.47	13.23	6,936.36	6936.74	Unknown	Chinle/Alluvium Interface

DEFINITIONS:

DTB - Depth to Bottom

DTW - Depth to Water

ND - Not Dectected

NA - Not Applicable

SPH - Separate Phase Hydrocarbons

NOTES:

1) Wells surveyed by a licensed professional surveyor-Hammon Enterprises, Inc. (HEI)

Negative number in Stick up Length column indicates well is flush mount and located at or below ground level
Depth to Water Column - if a measurement of 0.00 is indicated - means water level is at top of casing - Full.
Dry indicates no water was detected in the well.

Table 1
Fluid Level Measurements

Date of Installation	Date of Survey ¹	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to ² SPH (ft)	SPH ³ Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected ⁴ Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
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2) "0" indicates no SPH level.

3) Depth to SPH - Depth to Water Measurement = SPH Column Thickness.

4) Corrected Water Table Elevaton applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Groundwater Elevation)

5) 10/3/17 - Samples collected after end of third quarter due to rain storms and monitor well accessibility

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-4	11/2/2016	8260B	0.9	0.018	0.64	0.85	2.1
	9/11/2016	8260B	0.9	0.015	0.67	0.76	2.4
	6/9/2016	8260B	0.6	0.015	0.58	0.72	1.8
	2/29/2016	8260B	0.8	0.017	0.73	0.8	2.2
	11/3/2015	8260B	0.4	0.015	0.7	0.78	1.5
	8/18/2015	8260B	0.3	0.011	0.43	0.55	1.4
	6/4/2015	8260B	0.31	0.013	0.45	0.56	1.3
	3/16/2015	8260B	0.22	<0.01	0.26	0.34	1.2
	11/13/2014	8260B	0.18	<0.01	0.28	0.26	1.4
	9/15/2014	8260B	0.15	<0.005	0.14	0.14	1.4
	6/4/2014	8260B	0.67	0.019	0.57	0.68	1.8
	4/11/2014	8260B	1.0	0.025	0.8	1.0	2.4
MKTf-9	11/2/2016	8260B	1.6	0.026	0.21	0.052	0.5
	9/11/2016	8260B	2	0.03	0.22	0.059	0.62
	6/9/2016	8260B	1.4	0.029	0.21	0.056	0.53
	2/29/2016	8260B	1.6	0.029	0.24	0.064	0.69
	11/3/2015	8260B	1.5	0.036	0.23	0.07	0.63
	8/18/2015	8260B	1.2	0.035	0.2	0.063	0.6
	6/4/2015	8260B	0.89	0.025	0.15	0.039	0.43
	3/16/2015	8260B	0.49	0.013	0.08	0.018	0.5
	11/14/2014	8260B	0.81	0.033	0.15	0.11	0.77
	9/18/2014	8260B	0.75	0.027	0.096	0.043	0.76
	6/5/2014	8260B	1.3	0.052	0.2	0.098	1.2
	4/14/2014	8260B	1.1	0.038	0.14	0.075	1.2
MKTf-10	11/2/2016	8260B	17	22	1.7	8	<0.1
	9/11/2016	8260b	16	20	1.6	7.3	<0.1
	6/9/2016	8260B	15	22	1.7	8.9	0.018
	2/29/2016	8260B	11	23	1.7	7.7	<0.1
	11/3/2015	8260B	12	22	1.6	6.8	<0.05
	8/18/2015	8260B	9.2	19	1.5	6.5	<0.5
	6/4/2015	8260B	10	20	1.5	6.5	<0.05
	3/16/2015	8260B	11	21	1.6	6.8	<0.05
	11/14/2014	8260B	11	20	1.7	7.6	<0.02
	9/18/2014	8260B	11	15	0.93	4.0	<0.05
	6/6/2014	8260B	12	14	0.74	3.4	0.019
	4/11/2014	8260B	14	19	1.5	6.9	<0.05
MKTf-11	11/2/2016	8260B	3.9	4.5	0.52	1.6	0.071
	9/11/2016	8260B	4.5	4.8	0.53	1.6	0.081
	6/9/2016	8260B	4.5	5.8	0.57	1.8	0.078
	2/29/2016	8260B	5.1	6.4	0.67	2.2	0.12
	11/3/2015	8260B	11	13	0.96	3.9	0.056
	8/18/2015	8260B	3.7	4.2	0.5	1.5	0.082
	6/4/2015	8260B	12	13	1.2	4.9	0.041
	3/16/2015	8260B	10	11	0.93	3.7	0.048
	11/13/2014	8260B	9.5	8.2	0.77	2.3	0.08
	9/15/2014	8260B	9.5	7.1	0.72	2.0	0.083
	6/5/2014	8260B	12	7.8	0.75	2.2	0.096
	4/11/2014	8260B	15	7.6	0.93	2.2	0.15

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
Well ID	DATE SAMPLED	METHOD	Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
MKTf-15	11/2/2016	8260B	20	16	2.1	7.6	0.099
	9/11/2016	8260B	24	16	2.0	7.3	0.096
	6/4/15 , 3/16/15	8260B	SPH DETECTED				
	9/17/2014	8260B	11	7.0	1.4	4.3	0.38
	6/5/2014	8260B	12	8.8	1.3	3.7	0.27
	4/10/2014	8260B	16	2.4	1.2	6.1	0.27
	11/1/2013	8021B	12	12	1.5	4.8	NA
MKTf-16	11/3/2016	8260B	19	0.22	0.88	3.4	0.97
	9/12/2016	8260B	23	0.24	1.3	4.3	1.7
	6/9/2016	8260B	16	0.34	1.1	3.6	1.4
	2/29/2016	8260B	19	0.28	1.0	3.9	1.4
	11/3/2015	8260B	28	0.62	1.7	6.6	1.7
	8/23/2015	8260B	24	0.64	1.4	5.6	2.1
	6/8/2015	8260B	23	1.3	1.4	5.3	2.0
	3/16/2015	8260B	19	0.45	1.4	5.4	1.6
	11/18/2014	8260B	20	1.2	1.3	5.8	1.4
	9/17/2014	8260B	17	1.4	1.2	5.3	2.1
	6/5/2014	8260B	18	3.7	1.7	8.1	2.0
	4/10/2014	8260B	11	7.5	1.1	3.6	0.27
	11/19/2013	8021B	9.9	8.2	1.9	9.8	NA
MKTf-17	11/8/2016	8260B	0.76	0.0019	0.39	0.0043	0.36
	9/13/2016	8260B	1.3	0.0021	0.55	<0.015	0.38
	6/10/2016	8260B	1.9	0.006	0.52	0.24	0.49
	2/26/2016	8260B	0.26	<0.005	0.018	0.023	0.64
	11/3/2015	8260B	0.029	<0.002	0.31	<0.003	0.77
	8/18/2015	8260B	0.036	0.0011	0.3	0.0018	0.64
	6/8/2015	8260B	0.011	<0.001	0.018	<0.0015	0.5
	3/12/2015	8260B	0.0028	<0.001	0.0059	<0.0015	0.59
	11/18/2014	8260B	0.14	<0.001	0.078	<0.0015	0.57
	9/18/2014	8260B	0.55	<0.01	0.24	<0.015	0.69
	6/6/2014	8260B	2.6	<0.01	0.48	0.068	1.1
	4/9/2014	8260B	3.5	<0.01	0.58	0.27	1.3
	11/13/2013	8021B	1.8	1.6	0.71	2.7	NA
MKTf-18	11/8/2016	8260B	0.016	0.0003	0.014	0.0008	0.081
	9/13/2016	8260B	0.016	0.0004	0.015	0.0013	0.074
	6/10/2016	8260B	0.016	0.0005	0.021	0.0025	0.092
	2/26/2016	8260B	0.017	0.0006	0.034	0.0056	0.071
	11/3/2015	8260B	0.019	<0.002	0.041	0.017	0.083
	8/18/2015	8260B	0.032	0.0016	0.054	0.019	0.1
	6/8/2015	8260B	0.05	0.0033	0.049	0.031	0.082
	3/17/2015	8260B	0.058	<0.005	0.017	0.029	0.091
	11/18/2014	8260B	0.096	0.0076	0.09	0.047	0.1
	9/18/2014	8260B	0.12	0.013	0.069	0.042	0.12
	6/6/2014	8260B	0.29	0.014	0.036	0.055	0.14
	4/14/2014	8260B	0.29	0.015	0.058	0.044	0.15
	11/19/2013	8021B	0.33	0.37	0.13	0.47	NA

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-19	11/8/2016	8260B	1.3	0.0068	0.7	1.0	10
	9/13/2016	8260B	1.4	0.0075	0.69	0.92	8.9
	6/10/2016	8260B	1.5	0.0064	0.69	0.66	7.9
	2/25/2016	8260B	1.5	0.005	0.79	0.67	8.6
	11/3/2015	8260B	2.8	0.022	0.76	0.93	8.4
	8/18/2015	8260B	2.4	0.015	0.74	0.45	8.8
	6/8/2015	8260B	1.8	0.013	0.59	0.31	9.1
	3/12/2015	8260B	1.4	<0.01	0.43	0.15	9.7
	11/18/2014	8260B	2.3	<0.05	0.74	0.36	9.7
	9/24/2014	8260B	1.8	<0.05	0.73	0.76	11
	4/9/2014	8260B	1.4	<0.05	0.68	0.61	9.7
	11/5/2013	8021B	0.64	0.14	0.47	1.1	NA
MKTf-20 ¹	11/3/2016	8260B	13.0	0.4	1.1	9.2	0.19
	9/12/2016	8260B	18.0	0.48	1.3	8.8	0.16
	6/9/2016	8260B	11.0	0.39	0.85	7.9	0.16
	3/1/2016	8260B	13.0	0.47	1.1	9.2	0.13
	3/16/2015	8260B	7.0	2.3	0.089	9.6	<0.05
	11/18/2014	8260B	4.4	1.3	0.48	10	0.083
	4/11/2014	8260B	25	17	2.8	14	0.38
MKTf-21 ¹	11/3/2016	8260B	7.6	0.068	0.4	2.3	0.77
	9/12/2016	8260B	9.3	0.059	0.48	2.0	0.68
	6/9/2016	8260B	7.5	0.17	0.25	1.3	0.55
	3/1/2016	8260B	4.6	0.34	0.15	1.3	0.48
	6/10/2015	8260B	6.2	0.48	0.18	0.81	0.82
	3/16/2015	8260B	3.7	0.26	0.013	0.27	0.63
	4/11/2014	8260B	7.2	13	2.1	11	0.58
MKTf-34	11/8/2016	8260B	0.0001	<0.001	0.0002	<0.0015	0.001
	9/13/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.000
	6/10/2016	8260B	0.0005	<0.001	0.0003	<0.0015	0.001
	2/25/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/3/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/18/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/8/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTf-35	4/9/2014	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	11/3/2016	8260B	0.065	0.0003	0.0550	0.0100	0.01
	9/13/2016	8260B	0.37	0.0005	0.0250	0.0110	0.012
	6/10/2016	8260B	0.067	0.0003	0.0120	0.0055	0.019
	2/26/2016	8260B	0.046	<0.005	0.0340	0.0045	0.02
	11/3/2015	8260B	0.19	<0.001	0.0390	0.0023	0.048
	8/18/2015	8260B	0.97	<0.005	0.1600	<0.0075	0.061
	6/4/2015	8260B	0.79	0.0023	0.1900	0.0021	0.027
	3/17/2015	8260B	0.47	0.0052	0.3200	0.1700	0.033
MKTf-36	11/21/2014	8260B	0.039	<0.001	0.052	0.073	0.066
	11/8/2016	8260B	8.4	0.021	1.3	0.13	6.0
	9/13/2016	8260B	SPH DETECTED				
	8/18/2015	8260B	9.0	0.033	1.6	0.064	8.0
	6/4/2015	8260B	8.1	0.034	1.6	0.14	8.4
	3/17/2015	8260B	8.3	0.023	1.4	0.078	8.3
	11/21/2014	8260B	8.4	0.032	1.5	0.56	7.2

Table 2
Groundwater Analyses Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL			0.005	1.0	0.7	10	NE
NMED Tap Water (March 2017)			0.00455	1.09	0.015	0.193	0.143
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	DATE SAMPLED	METHOD					
MKTf-37	11/3/2016	8260B	0.96	0.012	0.014	0.84	0.03
	8/18/2015	8260B	0.76	0.14	0.024	1.6	0.05
	6/4/2015	8260B	1.2	0.058	0.017	0.93	0.054
	3/17/2015	8260B	0.82	0.27	0.029	0.49	0.057
	11/21/2014	8260B	0.14	0.2	0.009	1.3	0.027
MKTf-38	11/1/2016	8260B	0.0004	<0.001	<0.001	<0.0015	0.0010
	9/13/2016	8260B	0.0009	<0.001	<0.001	<0.0015	0.0006
	6/8/2016	8260B	0.0012	<0.001	<0.001	<0.0015	0.0052
	2/29/2016	8260B	0.0003	<0.001	<0.001	<0.0015	0.0006
	11/9/2015	8260B	0.0013	<0.001	<0.001	<0.0015	0.0043
	8/24/2015	8260B	0.0017	<0.001	<0.001	<0.0015	0.0073
	6/10/2015	8260B	0.0054	<0.001	<0.001	<0.0015	0.0076
	3/16/2015	8260B	0.0092	0.0180	<0.001	<0.0015	0.0060
	11/21/2014	8260B	0.0028	<0.001	0.0029	0.0031	0.0074
MKTf-39	11/1/2016	8260B	0.013	<0.005	0.059	<0.0075	<0.005
	9/13/2016	8260B	0.016	<0.005	0.06	<0.0075	<0.005
	6/8/2016	8260B	0.016	<0.001	0.061	7.E-03	4.E-04
	3/3/2016	8260B	0.019	<0.001	0.064	6.9E-04	<0.001
	11/9/2015	8260B	0.021	<0.001	0.064	<0.0015	<0.001
	8/23/2015	8260B	0.023	<0.001	0.06	1.6E-03	<0.001
	6/10/2015	8260B	0.025	<0.002	0.064	<0.003	<0.002
	3/16/2015	8260B	0.016	<0.002	0.039	<0.003	<0.002
	11/18/2014	8260B	0.02	<0.005	0.06	<0.0075	<0.005

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

EPA Regional Screening Level (RSL) Summary Table

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

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-4	11/2/2016	8015D/300.0	4.1	9.8	<5.0	1	180	<0.5	<0.5	6.1
	9/11/2016	8015D/300.0	5.3	10	<5.0	0.74	220	<1.0	<1.0	4.1
	6/9/2016	8015D/300.0	3.9	9	<5.0	0.79	250	<1.0	<1.0	7.0
	2/29/2016	8015D/300.0	3.6	9.2	<5.0	0.97	250	<1.0	<1.0	3.2
	11/3/2015	8015D/300.0	3.0	8.6	<5.0	0.96	300	<1.0	<1.0	3.0
	8/18/2015	8015D	3.7	6.8	<5.0	0.86	300	<0.1	<0.1	4.2
	6/4/2015	8015D	2.3	6.2	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	1.9	4.8	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	2.0	4.2	<5.0	<1.0	250	<1.0	<1.0	26
	9/15/2014	8015D	1.5	3.4	<5.0	NA	NA	NA	NA	NA
	6/4/2014	300.0/8015D	2.9	8.2	<5.0	0.7	0.19	<1.0	<1.0	6.8
	4/11/2014	8015D	4.5	9.4	<5.0	NA	NA	NA	NA	NA
MKTf-9	11/2/2016	300.0/8015D	1.6	7.8	<5.0	0.46	150	<0.5	<0.5	71
	9/11/2016	8015D/300.0	2.3	6.7	<5.0	0.26	160	<1.0	<1.0	57
	6/9/2016	300.0/8015D	1.7	7.8	<5.0	0.35	170	<1.0	<1.0	81
	2/29/2016	300.0/8015D	2.5	7.4	<5.0	0.47	170	<1.0	<1.0	70
	11/3/2015	300.0/8015D	5.3	9.8	<5.0	0.46	170	<0.1	<0.1	110
	8/18/2015	8015D/300.0	4.7	7.1	<5.0	0.43	170	<0.1	<0.1	130
	6/4/2015	8015D	1.8	4.1	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	<1.0	3.3	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	2.1	4.4	<5.0	<1.0	180	<1.0	<1.0	140
	9/18/2014	8015D	1.4	5.6	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.7	6.2	<5.0	0.43	180	<1.0	<1.0	78
	4/14/2014	8015D	3.6	5.7	<5.0	NA	NA	NA	NA	NA
MKTf-10	11/2/2016	300.0/8015D	3.8	100	<5.0	<0.05	230	<0.5	<0.5	<2.5
	9/11/2016	8015D/300.0	6	110	<5.0	<2.0	240	<1.0	<1.0	<2.5
	6/9/2016	300.0/8015D	8	110	<5.0	<2.0	260	<1.0	<1.0	0.4
	2/29/2016	300.0/8015D	14	110	<5.0	<2.0	280	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	8	100	<5.0	<2.0	380	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	55	130	<5.0	<5.0	390	<0.5	<0.5	<2.5
	6/4/2015	8015D	23	79	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	32	80	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	74	84	<5.0	270	260	<2.0	<2.0	<5.0
	9/18/2014	8015D	7.7	88	<5.0	NA	NA	NA	NA	NA
	6/6/2014 ¹	300.0/8015D	5.5	64	<5.0	NA	NA	NA	NA	NA
	4/11/2014	8015D	5.9	88	<5.0	NA	NA	NA	NA	NA
MKTf-11	11/2/2016	300.0/8015D	1.6	27	<5.0	<0.5	900	<0.5	<0.5	2.2
	9/11/2016	8015D/300.0	1.7	29	<5.0	<2.0	880	<1.0	<1.0	2.2
	6/9/2016	300.0/8015D	1.4	39	<5.0	<2.0	1000	<1.0	<1.0	2.2
	2/29/2016	300.0/8015D	1.5	42	<5.0	<0.5	1600	<1.0	<1.0	0.58
	11/3/2015	300.0/8015D	2.9	71	<5.0	<2.0	740	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	1.6	36	<5.0	<2.0	1200	<2.0	<0.1	1.2

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-11	6/4/2015	8015D	2.8	71	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.6	55	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	1.8	35	<5.0	6.5	780	<1.0	<1.0	<5.0
	9/15/2014	8015D	1.8	57	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.6	48	<5.0	7.0	480	<1.0	<1.0	11
	4/11/2014	300.0/8015D	2.7	53	<5.0	NA	NA	NA	NA	NA
MKTf-15	11/2/2016	8015D/300.0	6.2	110	<5.0	<0.05	2800	<2.0	<0.5	<2.5
	9/11/2016	8015D/300.0	17		<5.0	<2.0	3100	<4.0	<4.0	<2.5
	9/17/2014	8015D	17	88	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	10	57	<5.0	<2.0	5200	<4.0	<4.0	1.2
	4/10/2014	8015D	4.1	71	<5.0	NA	NA	NA	NA	NA
	11/1/2013	8015D	2.4	65	<5.0	NA	NA	NA	NA	NA
MKTf-16	11/3/2016	300.0/8015D	3.3	70	<5.0	1.2	380	<0.5	<0.5	<2.5
	9/12/2016	300.0/8015D	3.5	62	<5.0	1.3	390	<1.0	<1.0	0.36
	6/9/2016	300.0/8015D	3	69	<5.0	NA	NA	NA	NA	NA
	2/29/2016	300.0/8015D	2.6	73	<5.0	1	710	<1.0	<1.0	0.068
	11/3/2015	300.0/8015D	3.1	91	<5.0	0.88	1000	<1.0	<1.0	<2.5
	8/23/2015	8015D/300.0	3.7	83	<5.0	0.66	1700	<1.0	<1.0	<2.5
	6/8/2015	8015D	4.3	69	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.9	61	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.7	53	<5.0	1.5	700	<0.5	<0.5	<2.5
	9/17/2014	8015D	4.6	66	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	5.7	71	<5.0	1.1	540	<1.0	<1.0	<2.5
	4/10/2014	8015D	3.5	67	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	4.2	68	<5.0	NA	NA	NA	NA	NA
MKTf-17	11/8/2016	300.0/8015D	1.3	4.5	<5.0	0.77	64	<1.0	<1.0	45
	9/13/2016	300.0/8015D	1.6	7.5	<5.0	0.83	70	0.58	0.58	45
	6/10/2016	300.0/8015d	2.1	9.2	<5.0	NA	NA	NA	NA	NA
	2/26/2016	300.0/8015D	<1.0	1.6	<5.0	0.54	76	<1.0	<1.0	180
	11/3/2015	300.0/8015D	1.5	2.5	<5.0	0.61	78	<0.1	<0.1	120
	8/18/2015	8015D/300.0	1.1	1.7	<0.005	0.5	74	<0.1	<0.01	160
	6/8/2015	8015D	1.3	0.77	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	0.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	1.4	1.2	<5.0	0.66	84	<0.1	<0.1	200
	9/18/2014	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
	4/9/2014	8015D	2.6	8.6	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	5.8	17	<5.0	NA	NA	NA	NA	NA
MKTf-18	11/8/2016	300.0/8015D	1.7	0.6	<5.0	0.62	160	<1.0	<1.0	0.23
	9/13/2016	300.0/8015D	2.2	0.56	<5.0	0.67	170	<1.0	<1.0	0.34
	6/10/2016	8015D/300.0	1.9	0.71	<5.0	0.63	180	<1.0	<1.0	0.21
	2/26/2016	300.0/8015D	0.3	0.79	<5.0	0.64	160	<1.0	<1.0	0.26
	11/3/2015	300.0/8015D	2.5	1.3	<5.0	0.61	160	<0.1	<0.1	<0.5
	8/18/2015	8015D/300.0	34	1.3	<5.0	0.55	170	<0.1	<0.1	<0.5
	6/8/2015	8015D	3.3	1.4	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	5.4	1.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.3	1.4	<5.0	0.68	160	<0.5	<0.5	<2.5
	9/18/2014	8015D	3.1	1.4	<5.0	NA	NA	NA	NA	NA
	6/6/2014	8015D/300.0	7.8	2.2	<5.0	0.65	170	<1.0	<1.0	0.95
	4/14/2014	8015D	4.4	2.2	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	11	4	<5.0	NA	NA	NA	NA	NA
MKTf-19	11/8/2016	300.0/8015D	6.7	26	<5.0	0.28	110	<1.0	<1.0	0.89
	9/13/2016	300.0/8015D	7.3	25	<5.0	0.34	130	<1.0	<1.0	0.57
	6/10/2016	8015D/300.0	7.2	21	<5.0	0.17	150	<1.0	<1.0	0.28
	2/25/2016	300.0/8015D	7.8	22	<5.0	0.24	150	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	13	34	<5.0	<0.5	130	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	27	20	<5.0	0.18	140	<0.1	0.17	<0.5
	6/8/2015	8015D	9.9	19	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	9.3	14	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	13	20	<5.0	<0.5	110	<0.5	<0.5	<2.5
	9/24/2014	8015D	61	16	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	17	18	<5.0	NA	NA	NA	NA	NA
	11/5/2013	8015D	7.2	10	<5.0	NA	NA	NA	NA	NA

Table 2
Groundwater Analyses Summary

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 20NMAC 6.2.3103			NE	NE	NE	1.6	250.0	NE	10	600.0
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	1.0	10	NE
NMED Tap Water (March 2017)			0.0398	0.0398	0.0398	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	DATE SAMPLED	METHOD								
MKTf-39	11/1/2016	8015D	17	0.36	<5.0	0.97	1300	<0.5	<0.5	<2.5
	9/13/2016	8015D/300.0	10	1.1	<5.0	0.26	1900	<2.0	<2.0	<10
	6/8/2016	8015D/300.0	19	0.67	<5.0	0.54	2300	<2.0	<2.0	0.21
	3/3/2016	8015D/300.0	13	0.46	<5.0	0.71	2900	<4.0	<4.0	4.2
	11/9/2015	8015D	23	0.44	<5.0	<2.0	6400	<2.0	<0.1	<0.5
	8/23/2015	8015D/300.0	13	0.93	<5.0	<0.5	9100	<4.0	<4.0	<2.5
	6/10/2015	8015D	44	0.44	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	6.2	0.21	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	15	0.39	<5.0	NA	NA	NA	NA	NA

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

EPA Regional Screening Level (RSL) Summary Table

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

NOTES

1) No samples collected for General Chemistry - not enough water.

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103				0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)				8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)				5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	DATE SAMPLED	METHOD														
MKTF-4	11/2/2016	200.7/200.8	0.01	2.8	<0.002	<0.006	<0.006	<0.006	4.6	0.0006	1.5	0.01	<0.005	<0.0002	0.004	0.006
	9/11/2016	200.7/200.8	0.01	3.4	<0.002	<0.006	<0.006	<0.006	6.7	0.0030	1.5	0.014	<0.005	<0.0002	0.003	0.007
	6/9/2016	200.7/200.8	0.009	3.1	<0.002	<0.006	<0.006	<0.006	6.2	0.0019	1.7	0.010	<0.005	<0.0002	0.005	0.016
	2/29/2016	200.7/200.8	0.008	3.0	<0.002	<0.006	<0.006	<0.006	5.6	0.0036	1.5	0.004	<0.005	<0.0002	0.004	0.022
	11/3/2015	200.7/200.8	0.014	3.4	<0.002	<0.006	<0.006	<0.006	16	0.0063	1.7	0.016	<0.005	<0.0002	0.002	0.012
	8/18/2015	200.7/200.8	0.0085	3.0	<0.002	<0.006	0.006	0.006	17	0.0170	1.9	<0.01	<0.005	<0.0002	0.004	0.025
	6/4/2015	200.7/200.8	0.0082	2.5	<0.002	0.009	<0.006	<0.006	13	0.0097	1.9	<0.01	<0.005	<0.0002	0.005	0.017
	3/16/2015	200.7/200.8	<0.01	1.8	<0.002	0.009	0.012	0.012	11	0.022	2.5	0.016	<0.005	<0.0002	0.017	0.03
	11/13/2014	200.7/200.8	0.0079	1.9	<0.002	0.009	0.009	0.015	15	0.023	2.5	<0.05	<0.005	<0.0002	0.013	0.03
	9/15/2014	200.7/200.8	0.0060	2.0	<0.002	0.015	0.021	0.021	20	0.036	2.9	0.008	<0.005	<0.0002	0.02	0.044
	6/4/2014	200.7/200.8	0.0061	1.4	<0.002	0.009	0.013	0.013	7.9	0.013	2.1	0.013	<0.005	<0.0002	0.009	0.02
MKTF-9	11/2/2016	200.7/200.8	0.0028	0.47	<0.002	<0.006	<0.006	<0.006	1.7	0.002	3.6	0.006	<0.005	<0.0002	0.007	0.003
	9/11/2016	200.7/200.8	0.0033	0.52	<0.002	<0.006	<0.006	<0.006	2.3	0.002	3.8	0.007	<0.005	<0.0002	0.006	<0.01
	6/9/2016	200.7/200.8	0.0023	0.49	<0.002	<0.006	<0.006	<0.006	2.1	0.002	3.6	0.005	<0.005	<0.0002	0.007	<0.01
	2/29/2016	200.7/200.8	0.0020	0.64	<0.002	<0.006	<0.006	<0.006	4.0	0.004	4.2	0.002	<0.005	<0.0002	0.005	0.012
	11/3/2015	200.7/200.8	0.0045	0.71	<0.002	<0.006	<0.006	<0.006	8.8	0.011	4.3	<0.05	<0.005	<0.0002	0.005	0.019
	8/18/2015	200.7/200.8	0.0042	0.81	<0.002	<0.006	<0.006	8.9E-03	7.7	0.015	3.7	<0.005	<0.005	<0.0002	0.005	0.027
	6/4/2015	200.7/200.8	<0.005	0.34	<0.002	<0.006	<0.006	<0.006	3.1	<0.005	3.0	<0.005	<0.005	<0.0002	0.008	<0.01
	3/16/2015	200.7/200.8	0.0029	0.22	<0.002	<0.002	<0.002	<0.002	2.0	0.002	2.4	0.005	<0.005	<0.0002	0.014	0.01
	11/14/2014	200.7/200.8	<0.005	0.39	<0.002	<0.006	<0.006	<0.006	4.5	0.005	2.7	<0.01	<0.005	<0.0002	0.010	0.013
	9/18/2014	200.7/200.8	<0.005	0.33	<0.002	<0.006	<0.006	<0.006	2.4	<0.001	2.8	<0.005	<0.005	<0.0002	0.012	<0.01
	6/5/2014	200.7/200.8	<0.005	0.58	<0.002	<0.006	<0.006	<0.006	6.7	0.006	3.8	0.007	<0.005	<0.0002	0.006	0.015
MKTF-10	11/2/2016	200.7/200.8	0.0096	6	<0.002	<0.006	<0.006	<0.006	10	0.001	5.2	0.0049	<0.005	<0.0002	0.0009	0.0044
	9/11/2016	200.7/200.8	0.0083	11	<0.002	<0.006	<0.006	<0.006	26	0.002	12	0.0058	<0.005	<0.0002	0.0012	0.0027
	6/9/2016	200.7/200.8	0.0060	13	<0.002	<0.006	<0.006	<0.006	36	0.002	15	0.0033	<0.005	<0.0002	0.0008	0.0190
	2/29/2016	200.7/200.8	0.0086	16	<0.002	<0.006	<0.006	<0.006	57	0.003	21	0.0020	<0.005	<0.0002	0.0015	0.0140
	11/3/2015	200.7/200.8	0.0059	14	<0.002	<0.006	<0.006	<0.006	61	0.025	19	<0.05	<0.005	<0.0002	0.0019	0.0320
	8/18/2015	200.7/200.8	0.0380	15	<0.002	0.013	<0.006	<0.006	64	0.58	22	<0.05	<0.005	0.0003	0.0630	0.4900
	6/4/2015	200.7/200.8	0.015	19	<0.002	0.077	0.1	0.1	120	0.19	24	<0.01	<0.005	<0.0002	0.0140	0.1500
	3/16/2015	200.7/200.8	0.019	22	<0.002	0.036	0.095	0.095	100	0.2	27	<0.01	<0.005	<0.0002	0.0190	0.1400
	11/14/2014	200.7/200.8	<0.04	45	<0.004	0.099	0.24	0.24	250	0.58	49	<0.04	<0.01	<0.0004	0.0520	0.3100
	9/18/2014	200.7/200.8	<0.005	12	<0.002	<0.006	<0.006	<0.006	46	0.002	15	0.0032	<0.005	<0.0002	0.0013	<0.01
	6/6/2014	200.7/200.8	<0.005	7.7	<0.002	<0.006	<0.006	<0.006	25	<0.005	9.5	0.0061	<0.005	<0.0002	<0.005	<0.01

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103				0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)				8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)				5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	DATE SAMPLED	METHOD														
MKTF-11	11/2/2016	200.7/200.8	0.014	2.7	<0.002	<0.006	<0.006	<0.006	8.4	0.001	4.0	0.005	<0.005	<0.0002	0.007	0.017
	9/11/2016	200.7/200.8	0.013	2.9	<0.002	<0.006	<0.006	<0.006	7.1	0.001	4.1	0.005	<0.005	<0.0002	0.007	0.012
	6/9/2016	200.7/200.8	0.012	3.4	<0.002	<0.006	<0.006	<0.006	8.1	0.001	4.0	0.003	<0.005	<0.0002	0.009	0.016
	2/29/2016	200.7/200.8	0.013	3.9	<0.002	<0.006	<0.006	<0.006	11	0.003	6.4	0.002	<0.005	<0.0002	0.005	0.018
	11/3/2015	200.7/200.8	0.008	3.8	<0.002	<0.006	<0.006	<0.006	15	0.003	3.5	0.005	<0.005	<0.0002	0.001	0.017
	8/18/2015	200.7/200.8	0.009	2.4	<0.002	<0.006	<0.006	<0.006	14	0.007	4.0	0.003	<0.005	<0.0002	0.003	0.024
	6/4/2015	200.7/200.8	0.006	2.7	<0.002	<0.006	<0.006	<0.006	0.013	0.003	3.0	<0.005	<0.005	<0.0002	<0.0025	0.013
	3/16/2015	200.7/200.8	0.009	1.9	<0.002	<0.006	<0.006	<0.006	10	0.007	3.1	0.006	<0.005	<0.0002	0.002	0.024
	11/13/2014	200.7/200.8	0.009	1.7	<0.002	<0.006	<0.006	<0.006	5.8	<0.005	3.4	<0.005	<0.005	<0.0002	<0.005	0.012
	9/15/2014	200.7/200.8	0.007	1.4	<0.002	<0.006	<0.006	<0.006	8.1	0.006	3.1	0.003	<0.005	<0.0002	0.006	0.021
MKTF-15	6/5/2014	200.7/200.8	0.006	1.2	<0.002	6.1E-03	<0.006	<0.006	8.8	0.010	2.8	0.006	<0.005	<0.0002	<0.005	0.038
	11/2/2016	200.7/200.8	0.004	22	<0.002	<0.006	<0.006	<0.006	34	0.006	6.8	6.9E-03	<0.005	<0.0002	<0.0025	0.28
	9/11/2016	200.7/200.8	0.002	23	<0.002	<0.006	<0.006	<0.006	35	0.006	7.7	5.4E-03	<0.005	<0.0002	<0.0025	0.018
	9/17/2015	200.7/200.8	<0.005	29	<0.002	<0.006	<0.006	<0.006	18	<0.01	9.8	<0.005	<0.005	<0.0002	<0.01	0.023
	6/5/2014	200.7/200.8	<0.01	25	<0.002	7.4E-03	<0.006	<0.006	11	0.011	7.9	<0.01	<0.005	<0.0002	<0.005	0.017
	11/3/2016	200.7/200.8	0.015	0.67	<0.002	<0.006	3.8E-03	3.6	0.003	0.86	0.01	<0.005	<0.005	<0.0002	7.7E-03	0.02
	9/12/2016	200.7/200.8	0.014	0.72	<0.002	<0.006	<0.006	<0.006	4.6	0.003	0.96	0.014	<0.005	<0.0002	6.7E-03	0.022
	2/29/2016	200.7/200.8	9.2E-03	1.3	<0.002	<0.006	<0.006	<0.006	6.5	0.003	1.8	4.9E-03	<0.005	<0.0002	6.6E-04	0.034
	11/3/2015	200.7/200.8	0.018	3.0	<0.002	<0.006	<0.006	<0.006	13	0.003	3.9	0.021	<0.005	<0.0002	5.3E-04	0.023
	8/23/2015	200.7/200.8	0.014	3.9	<0.002	<0.006	<0.006	<0.006	16	0.001	5.5	<0.02	<0.005	<0.0002	<0.0005	0.01
MKTF-16	6/8/2015	200.7/200.8	9.7E-03	2.2	<0.002	<0.006	9.1E-03	12	<0.0025	3.3	7.2E-03	<0.025	<0.005	<0.0002	<0.0025	0.023
	3/16/2015	200.7/200.8	<0.01	1.0	<0.002	<0.006	0.023	7.2	<0.01	1.3	<0.02	<0.005	<0.005	<0.0002	<0.01	0.035
	11/18/2014	200.7/200.8	0.01	1.1	<0.002	<0.006	<0.006	<0.006	10	0.004	1.3	<0.05	<0.005	<0.0002	1.6E-03	0.05
	9/17/2014	200.7/200.8	0.012	0.8	<0.002	<0.006	<0.006	<0.006	8.6	0.003	1.2	<0.01	<0.005	<0.0002	<0.001	0.034
	6/5/2014	200.7/200.8	0.023	0.9	<0.002	<0.006	<0.006	0.008	7.9	<0.005	1.2	0.013	<0.005	<0.0002	0.015	0.089
	11/8/2016	200.7/200.8	6.4E-03	0.6	<0.002	<0.006	<0.006	<0.006	1.9	0.001	2.8	0.003	<0.005	<0.0002	0.008	0.007
	9/13/2016	200.7/200.8	0.007	0.58	<0.002	<0.006	<0.006	<0.006	3.3	0.003	2.8	0.004	<0.005	0.000	0.011	0.006
	2/26/2016	200.7/200.8	4.6E-03	0.12	<0.002	<0.006	<0.006	<0.006	1.0	0.001	2.6	0.001	<0.005	<0.0002	0.018	0.006
	11/3/2015	200.7/200.8	0.02	12	<0.01	<0.006	<0.006	<0.006	0.7	0.35	3.5	<0.02	<0.005	<0.0002	0.048	0.330
	8/18/2015	200.7/200.8	5.2E-03	0.2	<0.002	<0.006	9.7E-03	1.7	0.004	2.9	<0.005	<0.005	<0.005	<0.0002	0.018	0.011
MKTF-17	6/8/2015	200.7/200.8	<0.005	0.24	<0.002	<0.006	<0.006	<0.006	2.6	0.003	3.3	<0.005	<0.005	<0.0002	0.020	0.015
	3/12/2015	200.7/200.8	0.006	0.17	<0.002	<0.006	<0.006	<0.006	1.8	0.002	3.1	0.002	<0.005	<0.0002	0.022	<0.01
	11/18/2014	200.7/200.8	0.005	0.21	<0.002	<0.006	<0.006	<0.006	2.0	0.003	3.0	<0.01	<0.005	<0.0002	0.025	0.019
	9/18/2014	200.7/200.8	0.006	0.21	<0.002	<0.006	<0.006	<0.006	1.8	0.002	3.3	0.002	<0.005	<0.0002	0.022	0.013
	6/16/2014	200.7/200.8	0.006	0.61	<0.002	0.013	0.012	0.012	10	0.022	4.1	0.005	<0.005	<0.0002	0.027	0.036

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
	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-18	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.002	0.03	10			
	0.01	2.0	0.005	0.1	1.3	NE	0.015	NE	0.05	NE	0.002	0.03	NE			
	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96			
	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6			
	0.003	1.7	<0.002	<0.006	<0.006	2.2	0.000	1.8	0.006	<0.005	<0.0002	0.001	<0.01			
	0.003	1.8	<0.002	<0.006	<0.006	3.3	0.001	2.0	0.005	<0.005	0.000	0.001	0.004			
	0.003	1.9	<0.002	<0.006	<0.006	2.5	0.001	1.9	0.006	<0.005	<0.0002	0.001	<0.01			
	0.002	2.3	<0.002	4.3E-03	5.7E-03	6.4	0.006	2.1	0.002	<0.005	<0.0002	0.002	0.020			
	0.009	12	<0.002	0.046	0.064	58.0	0.14	11	<0.01	<0.005	<0.001	0.015	0.190			
0.018	24	<0.01	0.26	0.21	110.0	0.37	22	<0.01	<0.005	0.000	0.037	0.540				
<0.005	2.5	<0.002	<0.006	<0.006	<0.006	5.0	<0.0025	1.8	<0.005	<0.0002	<0.0025	<0.01				
0.003	3.5	<0.002	0.012	0.011	14.0	0.021	2.7	0.021	<0.01	<0.005	<0.0002	0.003	0.051			
0.002	2.5	<0.002	<0.006	<0.006	<0.006	4.0	1.6E-03	1.8	<0.01	<0.005	<0.0002	<0.001	0.020			
0.002	2.6	<0.002	<0.006	<0.006	<0.006	3.2	2.8E-03	2.0	0.003	<0.005	<0.0002	0.002	0.018			
0.013	19	<0.01	0.11	0.12	81	0.29	17	0.013	<0.025	<0.0002	<0.0002	0.022	0.310			
MKTF-19	0.013	2.2	<0.002	8.8E-03	0.015	33	0.033	2.6	0.009	<0.005	<0.0002	0.006	0.070			
	0.015	2.1	<0.002	5.7E-03	8.3E-03	17	0.023	2.6	0.008	<0.005	0.000	0.004	0.065			
	0.016	2.6	<0.002	8.2E-03	0.012	19	0.038	3.3	0.011	<0.005	<0.0002	0.008	0.077			
	0.022	2.8	<0.002	0.012	0.018	23	0.069	3.9	0.019	<0.005	<0.001	0.025	0.010			
	0.018	2.7	<0.002	<0.006	<0.006	13	0.046	3.4	0.010	<0.005	<0.0002	0.008	0.096			
	0.018	4.4	<0.002	0.044	0.06	64	0.14	6.3	0.006	<0.005	<0.0002	0.024	0.220			
	0.019	2.5	<0.002	0.024	0.017	28	0.035	4.2	<0.005	<0.0002	<0.0002	0.005	0.082			
	0.017	2.7	<0.002	0.022	0.026	33	0.052	4.2	<0.01	<0.005	<0.0002	0.007	0.078			
	0.022	3.6	<0.002	0.035	0.043	47	0.079	5.6	<0.01	<0.005	<0.0002	0.014	0.110			
	0.029	9.3	<0.002	<0.006	0.019	22	9.0E-03	8.9	0.013	<0.005	<0.0002	0.005	0.024			
0.025	5.2	<0.002	<0.006	0.022	17	7.2E-03	4.4	0.009	<0.005	<0.0002	0.004	0.033				
MKTF-20	0.038	4.6	<0.002	<0.006	0.09	17	1.9E-02	5.0	0.009	<0.005	0.000	0.020	0.085			
	0.025	2.0	<0.002	<0.006	0.016	11	6.6E-03	3.2	0.005	<0.005	<0.0002	0.011	0.030			
	0.017	4.5	<0.002	0.022	0.12	45	0.048	4.9	<0.005	<0.005	<0.0002	0.007	0.190			
	0.021	4.3	<0.002	<0.006	<0.006	33	3.3E-03	5.1	0.009	<0.005	<0.0002	0.002	0.057			
	0.019	2.7	<0.002	<0.006	6.4E-03	24	3.1E-03	4.1	0.009	<0.005	0.000	0.001	0.048			
	Not enough water to collect samples															
	0.02	4.9	<0.002	0.029	0.1	55	0.079	6.4	<0.01	<0.005	<0.0002	0.007	0.440			
	MKTF-21	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8		
		11/8/2016	9/13/2016	6/10/2016	2/26/2016	11/3/2015	8/18/2015	6/8/2015	3/17/2015	11/18/2014	9/18/2014	6/6/2014	11/8/2016	9/13/2016		
		200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8	200.7/200.8		

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103		0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)		8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96	
	EPA RSL for Tap Water (MAY 2016)		5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6	
Well ID	DATE SAMPLED	METHOD														
MKTF-34	11/8/2016	200.7/200.8	2.6E-03	0.085	<0.002	<0.006	<0.006	0.7	8.7E-04	0.017	0.011	<0.005	0.000	0.038	0.007	
	9/13/2016	200.7/200.8	4.4E-03	0.12	<0.002	<0.006	<0.006	0.6	8.0E-04	0.014	0.011	<0.005	0.000	0.034	0.008	
	6/10/2016	200.7/200.8	4.7E-03	0.15	<0.002	<0.006	<0.006	2.3	2.6E-03	0.054	0.014	<0.005	<0.0002	0.032	0.024	
	2/25/2016	200.7/200.8	0.003	0.15	<0.002	<0.006	<0.006	1.6	1.6E-03	0.044	0.007	<0.005	<0.0002	0.032	0.023	
	11/3/2015	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	1.0	1.2E-03	0.03	<0.02	<0.005	<0.0002	0.027	0.012	
	8/18/2015	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	2.4	2.7E-03	0.074	0.009	<0.005	<0.0002	0.031	0.030	
	6/8/2015	200.7/200.8	<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	
	3/12/2015	200.7/200.8	<0.01	0.25	<0.002	<0.006	<0.006	5.2	4.5E-03	0.15	0.013	<0.005	<0.0002	0.028	0.059	
	11/17/2014	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	2.4	1.4E-03	0.075	<0.02	<0.005	<0.0002	0.026	0.037	
	MKTF-35	11/3/2016	200.7/200.8	3.5E-03	1.2	<0.002	0.011	0.012	22	0.019	5.5	0.002	<0.005	0.000	0.004	0.039
9/13/2016		200.7/200.8	2.4E-03	2.3	<0.002	4.5E-03	4.4E-03	8.6	0.012	3.8	0.002	<0.005	0.000	0.002	0.017	
6/10/2016		200.7/200.8	9.3E-04	0.89	<0.002	2.3E-03	<0.006	4.5	4.9E-03	3.3	0.001	<0.005	<0.0002	0.002	0.007	
2/26/2016		200.7/200.8	0.002	3.3	<0.002	0.009	<0.006	9.1	0.013	4.1	0.001	<0.005	<0.0002	0.003	0.026	
11/3/2015		200.7/200.8	0.002	2.3	<0.002	<0.006	<0.006	7.5	0.011	4.5	<0.005	<0.005	<0.0002	0.003	0.017	
8/18/2015		200.7/200.8	0.004	8.7	<0.002	0.016	0.020	17	0.034	6.5	<0.005	<0.005	<0.0002	0.005	0.051	
6/4/2015		200.7/200.8	<0.005	5.0	<0.002	0.018	0.013	13	0.023	6.4	<0.005	<0.005	<0.0002	0.004	0.032	
3/17/2015		200.7/200.8	0.004	8.2	<0.002	0.013	0.025	15	0.034	6.3	<0.005	<0.005	<0.0002	0.005	0.062	
MKTF-36	11/8/2016	200.7/200.8	0.018	6.6	<0.002	<0.006	0.007	18	0.01	1.9	0.005	<0.005	<0.0002	0.001	0.160	
	8/18/2015	200.7/200.8	0.016	5.7	<0.002	<0.006	<0.006	21	0.017	2.7	<0.005	<0.005	<0.0002	0.001	0.018	
	6/4/2015	200.7/200.8	0.017	6.8	<0.002	0.010	0.008	22	0.016	2.8	<0.005	<0.005	<0.0002	<0.0025	0.023	
	3/17/2015	200.7/200.8	0.016	7	<0.002	<0.006	<0.006	22	0.015	2.8	0.006	<0.005	<0.0002	0.002	0.028	
MKTF-37	11/3/2016	200.7/200.8	0.003	0.69	<0.002	<0.006	0.005	2.2	0.005	0.55	0.004	<0.005	<0.0002	0.025	0.015	
	8/19/2015	200.7/200.9	0.003	0.24	<0.002	<0.006	0.009	5.7	0.024	1.7	<0.005	<0.005	<0.0002	0.020	0.074	
	6/4/2015	200.7/200.8	<0.005	0.23	<0.002	0.006	0.010	4.8	0.036	2.6	<0.005	<0.005	<0.0002	0.024	0.044	
	3/17/2015	200.7/200.8	0.003	0.23	<0.002	<0.006	0.012	5.1	0.030	2.9	0.004	<0.005	<0.0002	0.026	0.140	

Table 2
Groundwater Analyses Summary

PARAMETERS - TOTAL METALS																
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 20NMAC 6.2.3103			0.1	1.0	0.01	0.05	1.0	1.0	0.05	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 (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.00492	0.0592	5.96	
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6	
Well ID	DATE SAMPLED	METHOD														
MKTf-38	11/1/2016	200.7/200.8	0.002	0.12	<0.002	<0.006	<0.006	1.7	0.003	3.3	0.004	<0.005	<0.0002	0.014	0.007	
	9/13/2016	200.7/200.8	0.003	0.075	<0.002	<0.006	<0.006	0.61	0.001	3.0	0.005	<0.005	0.000	0.014	0.006	
	6/8/2016	200.7/200.8	0.002	0.23	<0.002	<0.006	<0.006	3.0	0.004	3.8	0.005	<0.005	<0.0002	0.014	0.025	
	2/29/2016	200.7/200.8	0.002	0.14	<0.002	<0.006	<0.006	2.3	0.004	2.7	0.002	<0.005	<0.0002	0.014	0.014	
	11/9/2015	200.7/200.8	0.005	0.93	<0.002	0.010	0.009	11	0.020	4.2	<0.1	<0.005	<0.0002	0.020	0.035	
	8/24/2015	200.7/200.8	0.003	0.49	<0.002	0.006	0.008	7.2	0.010	3.9	0.004	<0.005	<0.0002	0.019	0.025	
	6/10/2015	200.7/200.8	<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	
MKTf-39	3/16/2015	200.7/200.8	0.003	0.34	<0.002	<0.006	<0.006	3.5	0.006	3.1	0.006	<0.005	<0.0002	0.029	0.014	
	11/1/2016	200.7/200.8	0.004	6.1	<0.002	<0.006	<0.006	8.7	0.005	1.3	0.008	<0.005	<0.0002	<0.0025	0.009	
	9/13/2016	200.7/200.8	0.005	9.7	<0.002	<0.006	<0.006	12	0.007	1.8	0.012	<0.005	0.000	0.000	0.014	
	6/8/2016	200.7/200.8	0.002	8.5	<0.002	<0.006	<0.006	12	0.012	1.8	0.007	<0.005	0.000	0.001	0.028	
	3/3/2016	200.7/200.8	<0.01	11	<0.002	<0.006	<0.006	13	0.01	1.9	0.007	<0.005	<0.0002	0.001	0.011	
	11/9/2015	200.7/200.8	0.006	33	<0.002	0.009	0.037	45	0.049	5.2	<0.05	<0.005	0.000	0.004	0.076	
	8/23/2015	200.7/200.8	<0.005	49	<0.002	<0.006	0.019	57	0.034	6.8	<0.01	<0.005	0.000	0.004	0.062	
	6/10/2015	200.7/200.8	<0.005	58	<0.002	<0.006	<0.06	59	0.031	8	<0.005	<0.005	<0.0002	0.003	0.042	
	3/16/2015	200.7/200.8	<0.01	35	<0.01	<0.03	<0.03	50	0.034	8.6	<0.01	<0.025	0.000	0.012	0.059	

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

EPA Regional Screening Level (RSL) Summary Table

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

Table 2

Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS														
	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	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.03	10.0		
	0.01	2.0	0.005	0.1	NE	NE	0.015	NE	NE	0.05	0.03	NE		
	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96		
	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6		
	0.013	2.6	<0.002	<0.006	<0.006	5.4	<0.0005	3.6	<0.005	0.005	0.006	0.004		
	0.014	2.5	<0.002	<0.006	<0.06	4.6	<0.0005	3.8	<0.005	0.006	0.004	<0.01		
	0.014	2.5	<0.002	<0.006	<0.006	4.3	<0.0005	3.5	<0.005	0.004	0.008	<0.01		
	0.015	3.6	<0.002	<0.006	<0.006	8.0	0.0003	5.7	<0.005	0.005	0.005	0.011		
	0.008	4.0	<0.002	<0.006	<0.006	12	<0.0005	3.6	<0.005	0.006	<0.0005	<0.01		
	<0.01	2.0	<0.002	<0.006	<0.006	4.0	<0.0025	4.0	<0.005	<0.01	0.003	<0.01		
MKTF-11	<0.01	2.7	<0.002	<0.006	<0.006	9.9	<0.01	3.0	<0.005	<0.01	<0.01	0.018		
	0.009	2.0	<0.002	<0.006	<0.006	4.8	<0.001	2.9	<0.005	0.008	0.001	<0.01		
	<0.01	1.5	<0.002	<0.006	<0.006	3.4	<0.001	3.2	<0.005	0.005	0.003	0.019		
	0.009	1.1	<0.002	<0.006	<0.006	2.7	<0.001	2.4	<0.005	<0.005	0.004	<0.01		
	0.006	1.8	<0.002	6.0E-03	<0.006	11	0.0220	3.6	<0.005	0.010	<0.01	0.036		
	0.003	20	<0.002	<0.006	<0.006	26	<0.0025	6.5	<0.005	0.007	<0.0025	0.014		
	0.003	23	<0.002	<0.006	<0.006	32	0.0005	7.6	<0.005	0.009	0.000	0.040		
	<0.01	27	<0.002	<0.006	<0.006	13	<0.01	9.0	<0.005	<0.01	<0.01	<0.01		
	<0.005	25	<0.002	<0.006	<0.006	11	<0.005	7.5	<0.005	<0.01	<0.01	0.011		
	0.015	0.69	<0.002	<0.006	<0.006	2.2	0.0004	0.87	<0.005	0.013	0.005	0.004		
MKTF-15	0.014	0.67	<0.002	<0.006	<0.006	2.4	0.0003	0.94	<0.005	0.013	0.004	<0.01		
	0.010	1.3	<0.002	<0.006	<0.006	5.8	0.0008	1.7	<0.005	0.010	0.000	0.018		
	0.016	3.1	<0.002	<0.006	<0.006	13	<0.0005	3.9	<0.005	0.019	<0.0005	<0.01		
	0.010	2.7	<0.002	<0.006	<0.006	11	<0.0025	4.1	<0.005	0.010	<0.0025	<0.01		
	0.009	2.3	<0.002	<0.006	<0.006	11	<0.005	3.6	<0.005	0.008	<0.005	0.017		
	<0.01	0.94	<0.002	<0.006	<0.006	5.6	<0.001	1.2	<0.005	<0.02	<0.001	0.024		
	0.011	0.88	<0.002	<0.006	<0.006	7.2	<0.001	1.1	<0.005	<0.01	<0.001	0.019		
	0.011	0.81	<0.002	<0.006	<0.006	7.3	<0.001	1.1	<0.005	<0.01	<0.001	0.017		
	0.013	0.81	<0.002	<0.006	<0.006	7.9	<0.005	1.3	<0.005	0.017	<0.01	0.022		
	0.005	0.52	<0.002	<0.006	<0.006	0.21	<0.0005	2.7	<0.005	0.003	0.007	<0.01		
MKTF-17	0.006	0.65	<0.002	<0.006	<0.006	0.23	<0.005	3.0	<0.005	0.005	0.008	<0.01		
	0.003	0.095	<0.002	<0.006	<0.006	0.093	0.0001	2.8	<0.005	0.002	0.018	0.020		
	0.010	0.19	<0.002	<0.006	<0.006	0.65	<0.0005	3.5	<0.005	0.005	0.013	<0.01		
	<0.01	0.097	<0.02	<0.006	<0.006	0.49	<0.0025	2.8	<0.005	<0.01	0.017	<0.01		
	<0.005	0.11	<0.002	<0.006	<0.006	0.14	<0.002	3.1	<0.005	<0.005	0.021	<0.01		
	0.006	0.13	<0.002	<0.006	<0.006	0.57	<0.001	3.0	<0.005	0.006	0.021	<0.01		
	0.005	0.14	<0.002	<0.006	<0.006	0.08	<0.001	2.8	<0.005	<0.01	0.022	0.027		
	0.005	0.16	<0.002	<0.006	<0.006	0.27	<0.001	3.1	<0.005	<0.005	0.022	0.018		
	0.005	0.24	<0.002	<0.006	<0.006	0.94	<0.005	3.3	<0.005	<0.005	0.022	0.140		
	0.003	1.7	<0.002	<0.006	<0.006	0.81	<0.0005	1.9	<0.005	0.005	0.001	<0.01		
MKTF-18	0.003	1.8	<0.002	<0.006	<0.006	0.89	<0.0005	2.0	<0.005	0.007	0.001	<0.01		
	0.002	1.9	<0.002	<0.006	<0.006	1.5	<0.0005	1.9	<0.005	0.005	0.001	<0.01		
	0.002	2.1	<0.002	<0.006	<0.006	2.1	0.0004	1.9	<0.005	0.002	0.001	0.011		
	0.003	2.5	<0.002	<0.006	<0.006	4.8	0.0053	1.9	<0.005	<0.01	0.001	<0.01		
	<0.01	2.0	<0.002	<0.006	<0.006	1.2	<0.0025	1.7	<0.005	<0.01	<0.0025	<0.01		
	<0.005	2.5	<0.002	<0.006	<0.006	3.9	<0.002	1.8	<0.005	<0.005	<0.002	<0.01		
	<0.01	2.5	<0.002	<0.006	<0.006	3.8	<0.001	1.8	<0.005	<0.01	<0.001	<0.01		
	0.002	2.4	<0.002	<0.006	<0.006	3.4	<0.001	1.7	<0.005	<0.01	<0.001	0.025		
	<0.005	2.3	<0.002	<0.006	<0.006	0.3	<0.001	1.7	<0.005	<0.005	0.001	0.012		
	<0.005	2.4	<0.002	<0.006	<0.006	4.5	<0.005	2.0	<0.005	0.009	<0.01	<0.01		

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS											
	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)	Zinc (mg/L)
STANDARDS	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	10.0
	0.01	2.0	0.005	0.1	NE	NE	0.015	NE	NE	0.05	NE
	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	5.96
	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	6
Well ID	DATE SAMPLED	METHOD									
MKTf-19	11/8/2016	200.7/200.8	0.011	1.6	<0.002	<0.006	0.0023	2.2	<0.005	0.008	0.009
	9/13/2016	200.7/200.8	0.017	1.7	<0.002	<0.006	0.0023	2.4	<0.005	0.008	0.004
	6/10/2016	200.7/200.8	0.015	1.6	<0.002	<0.006	0.0022	2.7	<0.005	0.013	0.006
	2/25/2016	200.7/200.8	0.015	1.7	<0.002	<0.006	0.0034	3.1	<0.005	0.004	0.010
	11/3/2015	200.7/200.8	0.018	1.7	<0.002	<0.006	0.0016	3.4	<0.005	<0.0005	<0.01
	8/18/2015	200.7/200.8	0.020	1.7	<0.002	<0.006	0.0032	3.2	<0.005	<0.01	<0.0025
	6/8/2015	200.7/200.8	0.019	1.7	<0.002	<0.006	<0.002	3.3	<0.005	<0.01	<0.01
	3/12/2015	200.7/200.8	0.021	1.6	<0.002	<0.006	0.0017	3.1	<0.005	<0.02	0.012
	11/18/2014	200.7/200.8	0.022	1.6	<0.002	<0.006	0.0019	3.0	<0.005	<0.01	0.018
MKTf-20	11/3/2016	200.7/200.8	0.029	8.6	<0.002	<0.006	0.0090	8.0	<0.005	0.013	0.014
	9/12/2016	200.7/200.8	0.027	4.7	<0.002	<0.006	0.0040	3.8	<0.005	0.008	0.012
	6/9/2016	200.7/200.8	0.034	3.3	<0.002	<0.006	0.0120	3.9	<0.005	0.008	0.016
	6/8/2015	200.7/200.8	0.012	1.5	<0.002	<0.006	<0.005	2.0	<0.005	<0.005	0.045
	3/16/2015	200.7/200.8	0.022	2.0	<0.002	<0.006	0.0013	3.1	<0.005	<0.01	<0.01
MKTf-21	11/3/2016	200.7/200.8	0.019	4.3	<0.002	<0.006	0.0010	5.0	<0.005	0.012	0.017
	9/12/2016	200.7/200.8	0.020	2.5	<0.002	<0.006	0.0018	3.7	<0.005	0.009	0.023
	6/10/2015	200.7/200.8	Not enough water to collect samples								
	3/16/2015	200.7/200.8	0.011	1.9	<0.002	<0.006	0.0120	3.1	<0.005	<0.01	0.074
MKTf-33	11/1/2016	200.7/200.8	0.001	0.041	<0.002	<0.006	<0.0005	0.13	<0.005	0.003	0.017
	9/10/2016	200.7/200.8	0.001	0.043	<0.002	<0.006	0.0002	0.13	<0.005	0.004	<0.01
	6/10/2016	200.7/200.8	0.002	0.04	<0.002	<0.006	<0.0005	0.031	<0.005	0.004	0.011
	2/25/2016	200.7/200.8	0.001	0.047	<0.002	<0.006	0.0001	0.16	<0.005	0.002	0.017
	11/9/2015	200.7/200.8	<0.005	0.062	<0.002	<0.006	0.0006	0.24	<0.005	<0.005	<0.01
	8/21/2015	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.0005		<0.005	0.002	<0.01
	6/9/2015	200.7/200.8	<0.005	0.055	<0.002	<0.006	<0.002	0.14	<0.005	<0.005	0.028
	3/12/2015	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.001	0.28	<0.005	<0.01	0.017
	11/17/2014	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.001	0.24	<0.005	<0.005	0.016
	11/8/2016	200.7/200.8	0.003	0.057	<0.002	<0.006	<0.0005	3.5E-04	<0.005	0.008	0.003
	9/13/2016	200.7/200.8	0.004	0.11	<0.002	<0.006	<0.0005	5.3E-04	<0.005	0.016	0.003
	6/10/2016	200.7/200.8	0.005	0.1	<0.002	<0.006	<0.0025	1.7E-03	<0.005	0.018	0.004
MKTf-34	2/25/2016	200.7/200.8	0.003	0.13	<0.002	<0.006	0.0001	0.001	<0.005	0.010	0.012
	1/3/2015	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.0005	<0.002	<0.005	<0.02	<0.01
	8/18/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.0025	<0.002	<0.005	<0.01	<0.01
	6/8/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.002	5.9E-03	<0.005	<0.01	0.018
	3/12/2015	200.7/200.8	<0.01	0.12	<0.002	<0.006	<0.001	0.013	<0.005	<0.05	<0.01
	11/17/2014	200.7/200.8	<0.01	0.15	<0.002	<0.006	<0.001	4.1E-03	<0.005	<0.02	0.051

Table 2

PARAMETERS - DISSOLVED METALS												
	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 20NMAC 6.2.3103	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.03	10.0
	40 CFR 141.62 MCL	0.01	2.0	0.005	0.1	NE	0.015	NE	NE	0.05	0.03	NE
	NMED Tap Water (March 2017)	8.55E-04	3.28	0.00624	0.0057	0.79	13.8	2.02	0.0987	0.0812	0.0592	5.96
	EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	6
	Well ID	DATE SAMPLED	METHOD									
MKTF-35	11/3/2016	200.7/200.8	0.001	0.23	<0.002	<0.006	<0.006	3	0.0003	<0.005	0.001	<0.01
	9/13/2016	200.7/200.8	0.001	0.17	<0.002	<0.006	<0.006	2.7	<0.0005	<0.005	0.001	0.003
	6/10/2016	200.7/200.8	0.001	0.37	<0.002	<0.006	<0.006	2.5	<0.0005	<0.005	0.001	<0.01
	2/26/2016	200.7/200.8	0.000	0.43	<0.002	<0.006	<0.006	2.8	0.0004	<0.005	0.002	0.010
	11/3/2015	200.7/200.8	<0.005	0.57	<0.002	<0.006	<0.006	2.6	<0.0005	<0.005	0.002	<0.01
	8/18/2015	200.7/200.8	<0.01	0.96	<0.002	<0.006	<0.006	2.8	<0.0025	<0.005	<0.0025	<0.01
	6/4/2015	200.7/200.8	<0.005	0.36	<0.002	<0.006	<0.006	2.6	<0.005	<0.005	<0.005	0.017
	3/17/2015	200.7/200.8	<0.01	0.31	<0.002	<0.006	<0.006	3.6	0.0011	<0.005	<0.01	<0.01
	11/8/2016	200.7/200.8	0.015	6.0	<0.002	<0.006	<0.006	13	0.0022	<0.005	0.004	0.006
	8/18/2015	200.7/200.8	0.018	6.1	<0.002	0.0064	<0.006	18	<0.0025	<0.005	<0.0025	<0.01
MKTF-36	6/4/2015	200.7/200.8	0.016	6.6	<0.002	<0.006	<0.006	18	<0.005	<0.005	<0.005	0.012
	3/17/2015	200.7/200.8	0.015	6.4	<0.002	<0.006	<0.006	19	0.0034	<0.005	<0.001	0.047
	11/3/2016	200.7/200.8	0.004	0.58	<0.002	<0.006	<0.006	0.25	0.0003	<0.005	0.003	<0.01
	8/19/2015	200.7/200.9	<0.02	1.19	<0.002	<0.006	<0.006	2.6	0.0047	<0.005	1.019	<0.02
	6/4/2015	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	1.8	<0.01	<0.005	0.023	0.039
MKTF-37	3/17/2015	200.7/200.8	<0.005	0.16	<0.002	<0.006	<0.006	1.1	0.0071	<0.005	0.021	0.029
	11/1/2016	200.7/200.8	0.001	0.044	<0.002	<0.006	<0.006	0.038	<0.0005	<0.005	0.013	<0.01
	9/13/2016	200.7/200.8	0.002	0.039	<0.002	<0.006	<0.006	<0.02	<0.0005	<0.005	0.013	0.004
	6/8/2016	200.7/200.8	0.001	0.031	<0.002	<0.006	<0.006	0.015	<0.0005	<0.005	0.013	0.007
	2/29/2016	200.7/200.8	0.001	0.03	<0.002	<0.006	<0.006	0.07	<0.0005	<0.005	0.012	0.012
	11/9/2015	200.7/200.8	<0.005	0.066	<0.002	<0.006	<0.006	0.22	0.0010	<0.005	0.019	<0.01
	8/24/2015	200.7/200.8	0.002	0.066	<0.002	<0.006	<0.006	0.094	<0.0005	<0.005	0.023	<0.01
	6/10/2015	200.7/200.8	<0.005	0.074	<0.002	<0.006	<0.006	0.31	<0.005	<0.005	0.021	0.021
	3/16/2015	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	0.24	<0.001	<0.005	0.025	0.096
	11/1/2016	200.7/200.8	0.004	6	<0.002	<0.006	<0.006	6.9	0.0005	<0.005	0.000	<0.01
MKTF-39	9/13/2016	200.7/200.8	0.005	8.9	<0.002	<0.006	<0.006	9.6	0.0004	<0.005	0.000	0.003
	6/8/2016	200.7/200.8	0.002	7.5	<0.002	<0.006	<0.006	8.3	0.0013	<0.005	0.000	<0.01
	3/3/2016	200.7/200.8	0.002	11	<0.002	<0.006	<0.006	11	0.0004	<0.005	0.000	0.009
	11/9/2015	200.7/200.8	<0.005	30	<0.002	<0.006	<0.006	29	<0.005	<0.005	<0.005	<0.01
	8/23/2015	200.7/200.8	<0.005	44	<0.002	<0.006	<0.006	45	<0.0025	<0.01	<0.0025	0.023
	6/10/2015	200.7/200.8	<0.01	67	<0.002	<0.006	<0.006	60	<0.01	<0.005	<0.01	0.012
	3/16/2015	200.7/200.8	<0.01	21	<0.002	<0.006	<0.006	31	<0.005	<0.005	0.010	<0.01

Table 2
Groundwater Analyses Summary

PARAMETERS - DISSOLVED METALS														
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 20NMAC 6.2.3103			0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.03	10.0
40 CFR 141.62 MCL			0.01	2.0	0.005	0.1	NE	NE	0.015	NE	NE	0.05	0.03	NE
NMED Tap Water (March 2017)			8.55E-04	3.28	0.00624	0.0057	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
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 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

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

Table 2

Groundwater Analyses Summary

STANDARDS		PARAMETERS																								
		Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4- Dichlorob enzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	
Well ID	DATE SAMPLED	METHOD	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
MKTF-4	WQCC 20NMAC 6.2.3103 40 CFR 141.62 MCL		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
	NMED Tap Water (March 2017)		0.535	NE	0.00012	NE	NE	NE	NE	NE	NE	0.00482	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE	
	EPA RSL for Tap Water (MAY 2016)		0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	0.0011	0.036	0.93	0.93	0.0002	0.000041	NE	5.8	0.12	0.02
	MKTF-9	11/2/2016	8270C	0.006	<0.01	<0.02			6.8E-03		0.02	0.007	<0.01		0.004	0.008	0.15	0.17	<0.01	<0.01	0.25		0.008	0.003		<0.01
9/11/2016		8270C	0.005	<0.01	<0.02			3.6E-03		0.017	0.005	0.003		<0.01	<0.01	0.14	0.16	<0.01	<0.01	0.22		0.007	0.004		0.003	
6/9/2016		8270C		<0.05	<0.1			0.018		0.018	0.028		<0.05	<0.05	0.13	0.13	<0.05	<0.05	0.18		<0.05	<0.05				
2/29/2016		8270C		<0.01	<0.02			<0.01		0.026			0.008	0.008	0.17	0.19	<0.01	<0.01	0.33		0.009	<0.01				
11/3/2015		8270C		<0.01	<0.02			<0.01		0.019			<0.01	<0.01	0.15	0.16	<0.01	<0.01	0.27		<0.01	<0.01				
8/18/2015		8270C		<0.01	<0.02			<0.01		0.021			<0.01	<0.01	0.15	0.096	<0.01	<0.01	0.26		<0.01	<0.01				
6/4/2015		8270C		<0.01	<0.02			<0.01		0.015			<0.01	<0.01	0.12	0.076	<0.01	<0.01	0.19		<0.01	<0.01				
3/16/2015		8270C		<0.01	<0.02			<0.01		0.014			<0.01	<0.01	0.051	0.025	<0.01	<0.01	0.059		<0.01	<0.01				
11/13/2014		8270C		<0.01	<0.02			<0.01		0.017			<0.01	<0.01	0.061	0.047	<0.01	<0.01	0.08		<0.01	<0.01				
9/24/2014 ¹		8270C		<0.01	<0.02			<0.01		<0.01			<0.01	<0.01	0.13	0.16	<0.02	<0.01	0.19		<0.01	<0.01				
6/4/2014		8270C		<0.01	0.021			<0.01		0.011			<0.01	<0.01	0.11	0.14	<0.02	<0.01	0.24		<0.01	<0.01				
4/11/2014		8270C		<0.01	<0.02			<0.01		0.017			<0.01	<0.01	0.12	0.16	<0.02	<0.01	0.23		<0.01	<0.01				
MKTF-10		11/2/2016	8270C	0.004	<0.01	<0.02			0.007		0.010	0.007			<0.01	0.006	0.048	<0.01	<0.01	0.023	<0.02	0.007	0.003		<0.01	
	9/11/2016	8270C	0.005	<0.01	<0.02			0.004		0.011	0.005			<0.01	0.004	0.064	5.2E-03	<0.01	<0.01	0.023		0.007	0.006			
	6/9/2016	8270C	0.003	<0.01	<0.02			0.004		0.009	0.005			<0.01	<0.01	0.046	5.1E-03	<0.01	<0.01	0.018		0.005	0.005			
	2/29/2016	8270C		<0.01	<0.02			<0.01		0.012			<0.01	<0.01	0.069	0.01	<0.01	<0.01	0.032		<0.01	<0.01				
	11/3/2015	8270C		<0.01	<0.02			<0.01		0.013			<0.01	<0.01	0.085	0.011	<0.01	<0.01	0.034		<0.01	<0.01				
	8/18/2015	8270C		<0.10	<0.02			<0.01		0.016			<0.01	<0.01	0.08	<0.01	<0.01	<0.01	0.023		0.011	<0.01				
	6/4/2015	8270C		<0.10	<0.02			<0.01		0.01			<0.01	<0.01	0.036	<0.01	<0.01	<0.01	0.012		<0.01	<0.01				
	3/16/2015	8270C		<0.01	<0.02			<0.01		<0.01			<0.01	<0.01	0.027	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01				
	11/14/2014	8270C		<0.01	<0.02			0.011		<0.01			<0.01	<0.01	0.049	<0.01	<0.01	<0.01	0.021		<0.01	<0.01				
	9/18/2014	8270C		<0.01	<0.02			<0.01		0.01			<0.01	<0.01	0.031	<0.01	<0.02	<0.01	0.018		<0.01	<0.01				
	6/5/2014	8270C		<0.01	<0.02			<0.01		0.01			<0.01	<0.01	0.058	0.014	<0.02	<0.01	0.041		<0.01	<0.01				
	4/14/2014	8270C		<0.01	<0.02			<0.01		<0.01			<0.01	<0.01	0.046	0.01	<0.02	<0.01	0.031		<0.01	<0.01				
	MKTF-11	11/2/2016	8270C		<0.05	0.056	<0.05	0.034	0.014		<0.05	0.037			0.039	<0.05	0.047	0.07	0.13	0.18	0.15		<0.05	0.079		
9/11/2016		8270C		0.06	0.05	0.006		0.004		0.004	0.005			0.200	<0.01	0.051	0.077	0.69	1.1	0.15		<0.01	0.26			
6/9/2016		8270C		<0.05	<0.1			0.018		<0.05	0.025			0.210	<0.05	0.056	0.072	0.82	0.92	0.15		<0.05	0.36			
2/29/2016		8270C		0.042	<0.02			<0.01		<0.01				0.170	<0.01	0.057	0.08	0.77	1.0	0.2		<0.01	0.67			
11/3/2015		8270C		0.029	<0.02			<0.01		0.093				0.093	<0.01	0.06	0.069	0.28	0.42	0.14		<0.01	0.24			
8/18/2015		8270C		0.06	<0.02			<0.01		0.085				0.085	<0.01	0.14	0.13	0.45	0.65	0.25		<0.01	0.41			
6/4/2015		8270C		<0.01	<0.02			<0.01		0.100				0.100	<0.01	0.066	0.084	0.35	0.54	0.18		<0.01	0.28			
3/16/2015		8270C		0.067	<0.02			<0.01		<0.01				0.110	<0.01	<0.01	0.088	0.53	0.63	0.17		<0.01	0.42			
11/14/2014		8270C		0.054	<0.02			0.01		0.063				0.063	<0.01	0.046	0.051	0.33	0.4	0.099		<0.01	0.29			
9/18/2014		8270C		0.073	<0.02			<0.01		0.090				0.090	<0.01	0.036	0.042	0.32	0.38	0.098		<0.01	0.25			
6/6/2014		8270C		0.075	<0.02			<0.01		<0.01				0.110	<0.01	0.04	0.053	0.49	0.61	0.14		<0.01	0.37			

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			WQCC 20NMAC 6.2.3103																							
			40 CFR 141.62 MCL																							
			NMED Tap Water (March 2017)																							
			EPA RSL for Tap Water (MAY 2016)																							
Well ID	DATE SAMPLED	METHOD	Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorobenzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
MKTf-15	11/2/2016	8270C		<0.05		0.065		0.035	0.013	<0.05	0.036			<0.05	0.079	<0.05	<0.05	0.013	<0.05	0.46	0.55	0.059		<0.05	2	
	9/11/2016	8270C		<0.01		0.011		3.1E-03		0.004	0.005			0.017	0.230	<0.01	0.013	0.014	1.8	2.6	0.053		<0.01	5.8		
	9/17/2014	8270C		<0.01		<0.02		<0.01		<0.01					0.013	<0.01	0.035	0.033	0.024	<0.01	0.048		<0.01	<0.01		
	6/5/2014	8270C		<0.01		0.023		<0.01		<0.01					0.013	<0.01	0.021	0.021	0.028	<0.01	0.05		<0.01	<0.01		
	4/10/2014	8270C		<0.012		<0.025		<0.012		<0.012					0.016	<0.012	0.02	0.021	0.043	<0.012	0.048		<0.012	0.015		
MKTf-16	11/3/2016	8270C		<0.01		0.038		0.007	0.003	<0.01	0.007				0.059	0.004	0.04	0.037	0.026	0.003	0.13		<0.01	0.18		
	9/12/2016	8270C		0.006		0.024		0.004		0.004	0.004				0.084	<0.01	0.046	0.051	0.071	<0.01	0.13		<0.01	0.14		
	6/9/2016	8270C		<0.05		<0.1		0.019		<0.05	0.025				0.083	<0.05	0.035	0.038	0.061	<0.05	0.1		<0.05	0.17		
	2/29/2016	8270C		0.011		<0.02		<0.01		<0.01					0.091	<0.01	0.033	0.042	0.079	<0.01	0.11		<0.01	0.03		
	11/3/2015	8270C		0.02		<0.02		<0.01		<0.01					0.120	<0.01	0.035	0.046	0.081	<0.01	0.13		<0.01	0.057		
	8/23/2015	8270C		0.025		<0.02		<0.01		<0.01					0.130	<0.01	0.044	0.055	0.1	0.015	0.16		<0.01	0.042		
	6/8/2015	8270C		0.021		<0.02		<0.01		<0.01					0.180	<0.01	0.042	0.046	0.12	<0.1	0.14		<0.01	0.048		
	3/16/2015	8270C		0.02		<0.02		<0.01		<0.01					0.190	<0.01	0.045	0.053	0.15	<0.01	0.15		<0.01	0.031		
	11/18/2014	8270C		0.018		<0.02		0.014		<0.01					0.080	<0.01	0.047	0.051	0.14	0.016	0.13		<0.01	0.038		
	9/17/2014	8270C		0.024		<0.02		<0.01		<0.01					0.180	<0.01	0.053	0.062	0.15	0.03	0.18		<0.01	0.031		
	6/16/2014 ¹	8270C		0.011		<0.02		<0.01		<0.01					0.170	<0.01	0.037	0.042	0.22	0.16	0.14		<0.01	0.42		
	4/10/2014	8270C		0.015		<0.02		<0.01		<0.01					0.200	<0.01	0.035	0.044	0.16	0.091	0.13		<0.01	0.09		
MKTf-17	11/8/2016	8270C		<0.01		<0.02		0.007	0.003	<0.01	0.007				<0.01	0.003	0.011	<0.01	<0.01	<0.01	7.7E-03		<0.01	0.0035		
	9/13/2016	8270C		<0.01		<0.02		0.004		<0.01	<0.01				<0.01	<0.01	6.3E-03	<0.01	<0.01	<0.01	6.4E-03		<0.01	0.0029		
	6/10/2016	8270C		<0.01		<0.02		<0.01		<0.01	0.005				0.004	<0.01	0.026	<0.01	<0.01	<0.01	0.062		<0.01	0.0098		
	2/26/2016	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		
	11/3/2015	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		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		<0.02		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTf-18	9/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/16/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/8/2016	8270C	0.006	<0.01		<0.02		0.007	0.003	<0.01	0.007				<0.01	0.007	0.057	0.02	<0.01	<0.01	0.018		0.004	<0.01		
	9/13/2016	8270C	0.004	<0.01		6.4E-03		<0.01		<0.01	<0.01				<0.01	0.006	0.049	0.02	<0.01	<0.01	0.014		0.004	<0.01		
	6/10/2016	8270C	0.006	<0.01		<0.02		<0.01		<0.01	0.005				<0.01	0.004	0.054	0.014	<0.01	<0.01	0.013		0.004	<0.01		
	2/26/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.06	0.017	<0.01	<0.01	0.016		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.079	0.017	<0.01	<0.01	0.023		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	0.011	0.14	0.042	<0.01	<0.01	0.042		<0.01	<0.01		
MKTf-19	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.1	0.028	<0.01	<0.01	0.029		<0.01	<0.01		
	3/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.11	0.036	<0.01	<0.01	0.032		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.012		<0.01					<0.02	<0.01	0.11	0.023	<0.01	<0.01	0.055		<0.01	<0.01		
	9/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.12	0.023	<0.02	<0.01	0.059		<0.01	<0.01		
	6/6/2014	8270C		<0.014		<0.029		<0.014		<0.014					<0.014	<0.014	0.064	<0.014	<0.029	<0.014	0.026		<0.014	<0.014		
	4/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.11	0.035	<0.02	<0.01	0.061		<0.01	<0.01		
	11/8/2016	8270C	0.005	<0.01		<0.02		0.007		0.006	0.008				0.006	0.007	0.12	0.18</								

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorobenzene (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)	Pentachloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	
WQCC 20NNMAC 6.2.3103																											
40 CFR 141.62 MCL																											
NMED Tap Water (March 2017)			0.535	NE	NE	NE	NE	0.0556	NE	NE	NE	NE	0.00482	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE	
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	0.0011	0.036	0.93	0.93	0.0002	0.000041	NE	5.8	0.12	0.02	
Well ID	DATE SAMPLED	METHOD																									
MKTF-20	11/3/2016	8270C		<0.05		0.061		0.035	0.014	<0.05	0.036			<0.05	0.430	<0.05	0.05	0.038	0.16	0.089	0.11	<0.1	<0.05	0.13		<0.05	
	9/12/2016	8270C		<0.1		0.13		0.036		<0.1	0.038			0.029	0.390	<0.1	0.048	0.043	0.19	0.061	0.11	0.025	<0.1	0.061		<0.1	
	6/9/2016	8270C		<0.05		8270C		0.018		<0.05	0.025				0.230	<0.05	0.051	0.029	0.25	0.28	0.077		<0.05	0.24		<0.05	
	3/1/2016	8270C		<0.01		<0.02		<0.01		<0.01					0.280	<0.01	0.036	0.023	0.096	<0.01	0.05		<0.01	0.011		<0.01	
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.230	<0.01	0.037	0.036	0.049	0.13	0.056		<0.01	0.05		<0.01	
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.320	<0.01	0.045	0.037	0.21	0.36	0.13		<0.01	0.21		<0.01	
	11/18/2014	8270C		<0.01		<0.02		0.014		<0.01					0.610	<0.01	0.11	0.066	0.12	0.051	0.1		<0.01	0.037		0.016	
4/11/2014	8270C		0.022		<0.026		<0.013		<0.013					0.130	<0.013	0.088	0.12	0.12	0.076	0.25	<0.013	<0.013	0.037				
MKTF-21	11/3/2016	8270c		<0.1		0.11		0.064	0.027	<0.1	0.081			<0.1	0.030	<0.1	<0.1	<0.1	<0.1	0.03	0.049	<0.2	<0.1	0.03		<0.1	
	9/12/2016	8270C		<0.1		0.063		0.056		<0.1	0.035			0.029		<0.1	<0.1	<0.1	<0.1	0.42	<0.1	0.024	<0.1	0.08		<0.1	
	3/1/2016	8270C		<0.01		0.036		<0.01		<0.01					0.006	<0.01	<0.01	<0.01	<0.01	0.12		<0.01	0.037		<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.011	<0.01	<0.01	<0.01	<0.01	0.11	<0.01		<0.01	0.035		<0.01	
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	0.069	<0.01	<0.01	0.038		<0.01		
	4/11/2014	8270C		<0.012		<0.025		<0.012		<0.012					0.100	<0.012	0.069	0.11	0.14	0.1	0.27	<0.012	<0.012	0.013		<0.012	
	11/8/2016	8270C		<0.01		8.3E-03		0.006		<0.01	0.007				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
MKTF-34	9/13/2016	8270C		<0.01		8.4E-03		0.003		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
	6/10/2016	8270C		<0.01		<0.02		0.003		<0.01	0.005				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
	2/25/2016	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	
	11/3/2015	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	
	8/18/2015	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	
	6/8/2015	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	
	3/12/2015	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	
MKTF-35	11/17/2014	8270C		<0.01		<0.02		0.014		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
	9/24/2014	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	
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.025	<0.01	<0.01		<0.01	<0.01		<0.01	
	11/3/2016	8270C		<0.05		0.055		0.034	0.014	<0.05	0.034				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		<0.05	
	9/13/2016	8270c		<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	
	6/10/2016	8270C		<0.01		<0.02		0.003		<0.01	0.006				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
	2/26/2016	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	
MKTF-36	11/3/2015	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	
	8/18/2015	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	
	6/4/2015	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	
	3/17/2015	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	
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.034	0.045	<0.01	<0.01	0.028		<0.01	<0.01		<0.01	
																					0.036		<0.01	<0.01		<0.01	

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS		WQCC 20NMAC 6.2.3103																									
		40 CFR 141.62 MCL																									
		NMED Tap Water (March 2017)																									
		EPA RSL for Tap Water (May 2016)																									
		Well ID	DATE SAMPLED	METHOD	Acenaphthene (mg/L)	Aniline (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)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorobenzene (mg/L)	Dimethyl 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)	Phenol (mg/L)	Pyrene (mg/L)
MKTf-36	11/8/2016	8270C	0.005	<0.01	<0.01	<0.02	<0.02	0.007	0.003	0.006	0.008	<0.01	<0.01	<0.01	<0.01	0.008	0.15	0.23	<0.01	<0.01	<0.01	<0.01	4.4E-03	0.028	<0.01	<0.01	
	8/18/2015	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	0.012	0.34	0.51	<0.01	<0.01	<0.01	<0.01	<0.01	0.048	<0.01	<0.01	
	6/4/2015	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	0.013	0.33	0.51	<0.01	<0.01	<0.01	<0.01	<0.01	0.056	<0.01	<0.01	
	3/17/2015	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	0.010	0.24	0.39	<0.01	<0.01	<0.01	<0.01	<0.01	0.044	<0.01	<0.01	
	11/21/2014	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.16	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	
MKTf-37	11/3/2016	8270C		<0.01	<0.01	0.019	<0.02	0.008		<0.01	0.007		0.003	<0.01	<0.01	<0.01	<0.01	0.051	0.064	0.012	3.5E-03	0.2	<0.01	7.4E-03	<0.01	<0.01	
	8/19/2015	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		<0.01			<0.01	<0.01	<0.01	<0.01	0.83	1.4	<0.01	<0.01	2.7	<0.01	<0.01	<0.01	<0.01	<0.01	
	6/4/2015	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	0.074	0.11	0.028	<0.01	0.23	<0.01	<0.01	<0.01	<0.01	
	3/17/2015	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	0.072	0.096	0.033	<0.01	0.16	<0.01	<0.01	<0.01	<0.01	
	11/21/2014	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	0.05	0.056	<0.01	<0.01	0.27	<0.01	<0.01	<0.01	<0.01	
MKTf-38	11/1/2016	8270C		<0.01	<0.01	8.7E-03	<0.02	0.006	0.003	<0.01	0.008		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	9/13/2016	8270C		<0.01	<0.01	0.0046	<0.02	0.003		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	6/8/2016	8270C		<0.01	<0.01	<0.02	<0.02	0.003		<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	
	2/29/2016	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	
	11/9/2015	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	
	8/24/2015	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	
	6/10/2015	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	
	3/16/2015	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	
	11/21/2014	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
	11/1/2016	8270C	0.003	<0.01	<0.01	0.016	<0.02	0.007		0.016	0.007	0.003	<0.01	<0.01	<0.01	0.009	0.098	0.039	<0.01	<0.01	<0.01	<0.01	7.4E-03	<0.01	4.8E-03	<0.01	<0.01
	MKTf-39	9/13/2016	8270C		<0.01	<0.01	0.012	<0.1	0.003		0.016	<0.01	0.003		<0.01	<0.01	0.008	0.077	0.028	<0.01	<0.01	<0.01	<0.01	6.7E-03	<0.01	<0.01	<0.01
6/8/2016		8270C		<0.05	<0.01	<0.02	<0.02	0.019		0.026	0.025		0.014		<0.05	<0.05	0.11	0.042	<0.05	<0.05	<0.05	0.013	<0.05	<0.01	<0.01	<0.01	
3/3/2016		8270C		<0.01	<0.01	<0.02	<0.02	<0.01		0.028				<0.01	<0.01	0.010	0.11	0.037	<0.01	<0.01	<0.01	7.9E-04	<0.01	<0.01	<0.01	<0.01	
11/9/2015		8270C		<0.01	<0.01	<0.02	<0.02	<0.01		0.021				<0.01	<0.01	<0.01	0.089	0.032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
8/23/2015		8270C		<0.01	<0.01	<0.02	<0.02	<0.01		0.025				<0.01	<0.01	<0.01	0.084	0.021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
6/10/2015		8270C		<0.01	<0.01	<0.02	<0.02	<0.01		0.026				<0.01	<0.01	0.013	0.14	0.043	<0.01	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	
3/16/2015	8270C		<0.01	<0.01	<0.02	<0.02	<0.01		0.011				<0.01	<0.01	<0.01	0.056	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
11/18/2014	8270C		<0.01	<0.01	<0.02	<0.02	0.012		0.021				<0.01	<0.01	<0.01	0.079	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WOCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/ 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

Table 2

Groundwater Analyses Summary

STANDARDS			PARAMETERS																																			
WQCC 20NMAC 6.2.3103																																						
40 CFR 141.62 MCL																																						
NMED Tap Water (March 2017)																																						
EPA RSL for Tap Water (MAY 2016)																																						
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)	Naphtha- lene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanol (mg/L)	Chloro benzene (mg/L)	Chloroethane (mg/L)	Chloro- form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCE (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,1-Dichloro propane (mg/L)	2-Hexanone (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)	Styrene (mg/L)	tert-butyl benzene (mg/L)	Tetrachloro 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-4	82608		0.37	0.063	0.002	<0.005	0.3	0.19	0.16	<0.05	NE	<0.05	0.006	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.02	NE	0.06	0.01	NE	0.001
	82608		0.43	0.069	0.003	<0.005	0.39	0.22	0.22	<0.05	NE	<0.05	0.010	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.37	0.057	<0.01	<0.001	0.28	0.17	0.14	<0.1	NE	<0.1	0.008	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.37	0.058	0.002	<0.001	0.34	0.18	0.18	0.027	NE	0.011	0.006	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.43	0.053	<0.01	<0.001	0.34	0.21	0.18	<0.1	NE	<0.1	0.006	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.27	0.026	<0.005	<0.001	0.24	0.14	0.085	<0.05	NE	<0.05	0.013	0.016	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.27	0.023	<0.01	<0.001	0.22	0.14	0.086	<0.1	NE	<0.1	0.011	0.016	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.2	0.024	<0.01	<0.001	0.17	0.096	0.089	<0.1	NE	<0.1	0.014	0.016	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.2	0.019	<0.01	<0.001	0.13	0.095	0.08	<0.1	NE	<0.1	0.014	0.016	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.096	0.012	<0.005	<0.001	0.092	0.041	0.033	<0.05	NE	<0.05	0.014	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
MKTF-9	82608		0.27	0.049	<0.01	<0.001	0.31	0.13	0.17	<0.1	NE	<0.1	0.011	0.016	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.51	0.094	<0.02	<0.001	0.43	0.18	0.28	<0.2	NE	<0.2	0.028	0.032	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.043	<0.01	<0.01	<0.01	0.029	0.064	5.6E-03	<0.1	NE	<0.1	0.027	0.032	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.053	<0.01	<0.01	<0.01	0.039	0.076	7.5E-03	<0.1	NE	<0.1	0.032	0.037	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.058	0.00075	<0.001	<0.001	0.035	0.083	0.011	0.013	NE	5.6E-03	0.032	0.037	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.065	<0.01	<0.01	<0.01	0.041	0.082	0.014	0.01	NE	<0.1	0.032	0.037	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.073	<0.01	<0.01	<0.01	0.041	0.081	0.014	<0.01	NE	<0.05	0.032	0.037	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.05	<0.005	<0.005	<0.001	0.029	0.08	<0.02	<0.05	NE	<0.05	0.026	0.036	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.033	<0.005	<0.005	<0.001	0.015	0.051	<0.02	<0.05	NE	<0.05	0.028	0.038	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.018	<0.005	<0.005	<0.001	0.011	0.034	0.074	<0.05	NE	<0.05	0.034	0.034	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
MKTF-10	82608		0.087	<0.01	<0.01	<0.01	0.043	0.11	<0.04	<0.1	NE	<0.1	0.035	0.035	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.038	<0.01	<0.01	<0.01	0.03	0.042	<0.04	<0.1	NE	<0.1	0.028	0.028	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.083	<0.01	<0.01	<0.01	0.068	0.089	<0.04	<0.1	NE	<0.1	0.014	0.014	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.074	<0.005	<0.005	<0.001	0.044	0.062	<0.02	<0.05	NE	<0.05	0.024	0.024	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.85	0.2	<0.1	<0.1	0.24	0.1	0.1	<0.1	NE	<0.1	0.026	0.026	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.84	0.2	<0.1	<0.1	0.35	0.15	0.16	<0.1	NE	<0.1	0.032	0.032	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.9	0.2	<0.2	<0.2	0.22	0.067	0.088	0.29	NE	<0.2	0.039	0.039	0.08	0.0203	0.0365	0.075	NE	0.007	0.005	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.005	0.005	<0.005	<0.005	<0.001	
	82608		0.9	0.2	<0.1	<0.1	0.21	0.074	0.087	0.16	NE	<0.2	0.07	0.07	0.0																							

Table 2
Groundwater Analyses Summary

STANDARDS										PARAMETERS																													
WQC 20NMAC.6.2.303																																							
40 CFR 141.62 MCL																																							
NMED Tap Water (March 2017)																																							
EPA RSL for Tap Water (MAY 2016)																																							
Well ID	DATE SAMPLED	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)	Naphtha- lene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl Ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloroethane (mg/L)	Chloro- form (mg/L)	Chloro- methane (mg/L)	cis-1,2-DCE (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- pentanone (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)	Tetrachloro 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)				
MKT-17	11/8/2016	0.002	<0.005	<0.005	<0.005	0.021	0.01	0.003	<0.05	<0.015	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	0.002	0.002	0.032	0.004	0.004	0.004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
	9/13/2016	0.012	<0.01	<0.01	<0.001	0.014	0.013	<0.04	<0.1	9.3E-03	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.033	0.003	0.003	0.050	0.005	0.005	0.005	3.10E-03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
	6/10/2016	0.23	0.005	<0.001	<0.001	0.094	0.035	<0.07	0.04	<0.001	6.4E-03	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.023	0.002	0.002	0.004	0.003	0.003	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	2/26/2016	0.002	<0.002	<0.002	<0.005	2.5E-03	<0.02	<0.08	<0.05	<0.001	<0.02	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
	11/3/2015	0.002	<0.002	<0.002	<0.002	<0.004	<0.008	<0.008	<0.02	<0.001	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.022	0.002	0.002	0.004	0.003	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	8/18/2015	0.002	<0.001	<0.001	<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	<0.001	<0.001	<0.001	1.1E-03	0.001	0.001	0.001	0.001	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	6/8/2015	0.002	<0.001	<0.001	<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	<0.001	<0.001	<0.001	9.1E-03	0.001	0.001	0.001	0.001	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	3/12/2015	0.002	<0.001	<0.001	<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	<0.001	<0.001	<0.001	0.029	<0.01	<0.01	0.002	0.002	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	11/18/2014	0.002	<0.001	<0.001	<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	<0.001	<0.001	<0.001	0.029	<0.01	<0.01	0.006	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	9/18/2014	0.095	0.025	<0.005	<0.005	0.097	0.15	0.033	<0.05	<0.001	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
	6/6/2014	0.088	0.029	<0.005	<0.005	0.068	0.13	0.028	<0.05	<0.001	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
	4/14/2014	0.091	0.024	<0.005	<0.005	0.077	0.13	0.043	<0.05	<0.001	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
MKT-18	11/8/2016	0.001	<0.001	0.000	<0.001	0.024	0.11	0.034	5.5E-03	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
	9/13/2016	0.001	<0.001	<0.001	<0.001	0.022	0.079	0.027	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	6/10/2016	0.004	0.000	<0.001	<0.001	0.025	0.082	0.025	9.8E-03	<0.001	4.4E-03	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	2/26/2016	0.014	0.001	<0.001	<0.001	0.035	0.14	0.04	3.2E-03	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	0.002	0.002	0.003	0.003	0.003	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	11/3/2015	0.051	0.007	<0.002	<0.002	0.042	0.11	0.027	<0.02	<0.001	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.007	0.003	0.002	0.002	0.004	0.004	0.004	0.004	<0.006	<0.011	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
	8/18/2015	0.047	0.009	<0.001	<0.001	0.053	0.16	0.051	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.008	0.002	0.002	0.002	0.004	0.004	0.004	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	6/8/2015	0.051	0.012	<0.001	<0.001	0.043	0.099	0.026	<0.01	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	0.002.																		

Table 3
Marketing Tanks Records

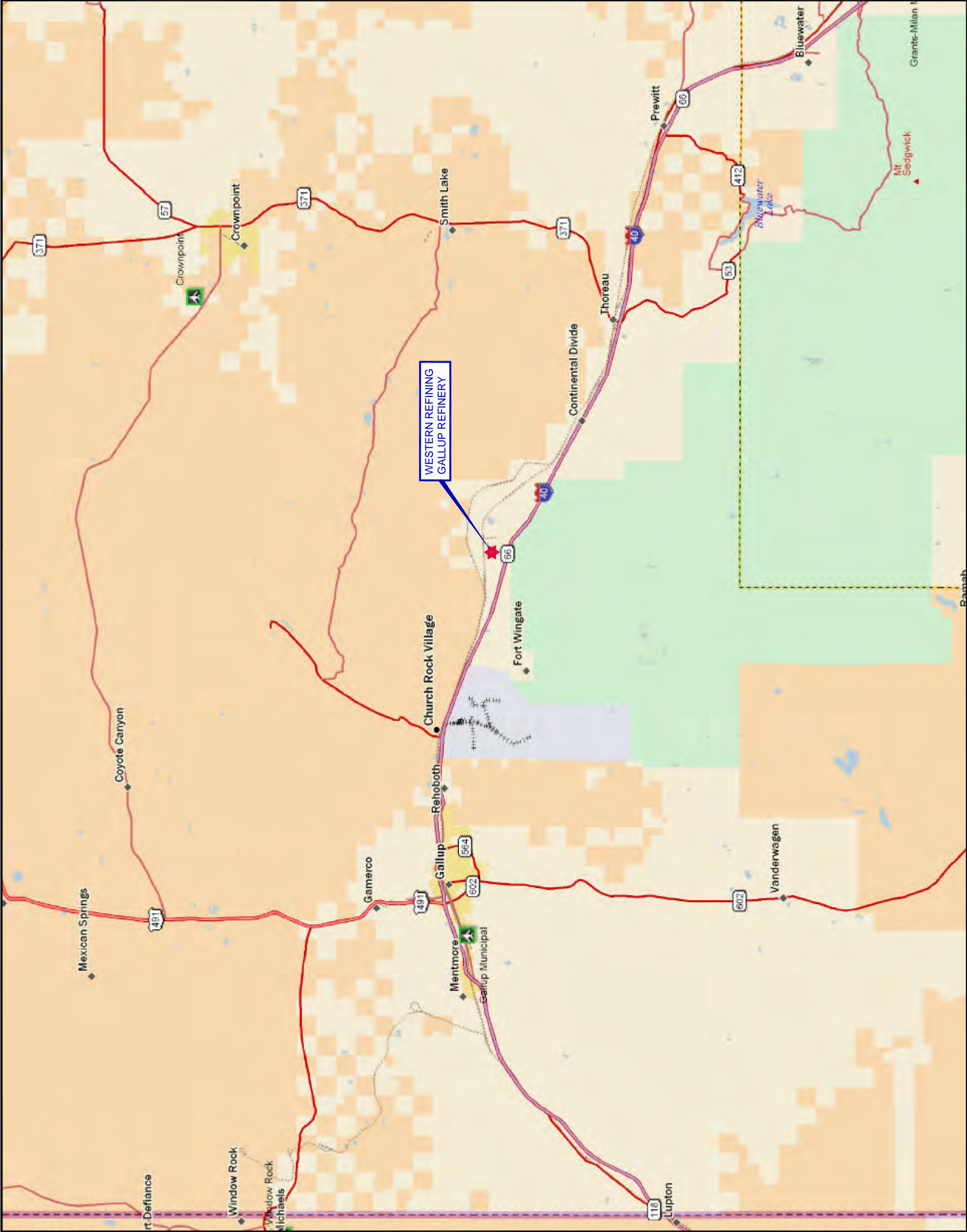
TANK NUMBER	TYPE OF TANK	YEAR BUILT	ROOF TYPE	ACTUAL CAPACITY	TANK DIAMETER	TANK HEIGHT/ LENGTH	PRODUCT
MKT-TK-01	VERT. STEEL	1965	CFRT	3000 bbl	30'-0"	24'-0"	ULSD
MKT-TK-02	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-03	VERT. STEEL	1965	IFRT	4000 bbl	30'-0"	32'-0"	89 OCTANE
MKT-TK-04	VERT. STEEL	1970	IFRT	3800 bbl	30'-0"	32'-0"	83 OCTANE
MKT-TK-05	VERT. STEEL	1963	CFRT	1800 bbl	25'-0"	28'-0"	ETHANOL
MKT-TK-06	VERT. STEEL	1963	IFRT	1800 bbl	21'-6"	28'-0"	ETHANOL
MKT-TK-07	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	NEW-OUT OF SERVICE
MKT-TK-08	VERT. STEEL	2011	IFRT	91392 gal	24'-0"	32'-0"	ULSD SALES
TK-1001	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	DIESEL
TK-1002	HORIZONTAL	unknown	FLATHEAD	3,000 gal	5'-4"	18'-0"	GASOLINE
TK-912	HORIZONTAL	unknown	FLATHEAD	8,000 gal	8'-0"	21'-0"	OUT OF SERVICE
TK-913	HORIZONTAL	unknown	FLATHEAD	8,000 gal	10'-0"	15'-0"	OUT OF SERVICE

CFRT - closed floating roof tank
IFRT - internal floating roof tank
ULSD - ultra low sulfur diesel

bbl - barrel
gal - gallon

Figures

- Figure 1 Site Location Map**
 - Figure 2 AOC 35 Map**
 - Figure 3 Potentiometric Map**
 - Figure 4 Benzene Concentration Map**
 - Figure 5 MTBE Concentration Map**
 - Figure 6 Proposed Sampling Locations**
-
-



PROJ. NO.: Western Refining DATE:07/13/14 FILE:WestRef-B198

FIGURE 1
SITE LOCATION MAP
GALLUP REFINERY

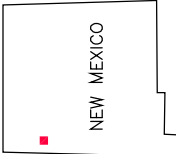
DiSorbo Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Aerial Map Source: Google Map, 3/18/2016.

PROJ. NO.: Western Refining | DATE: 08/25/18 | FILE: WestRef-dB180

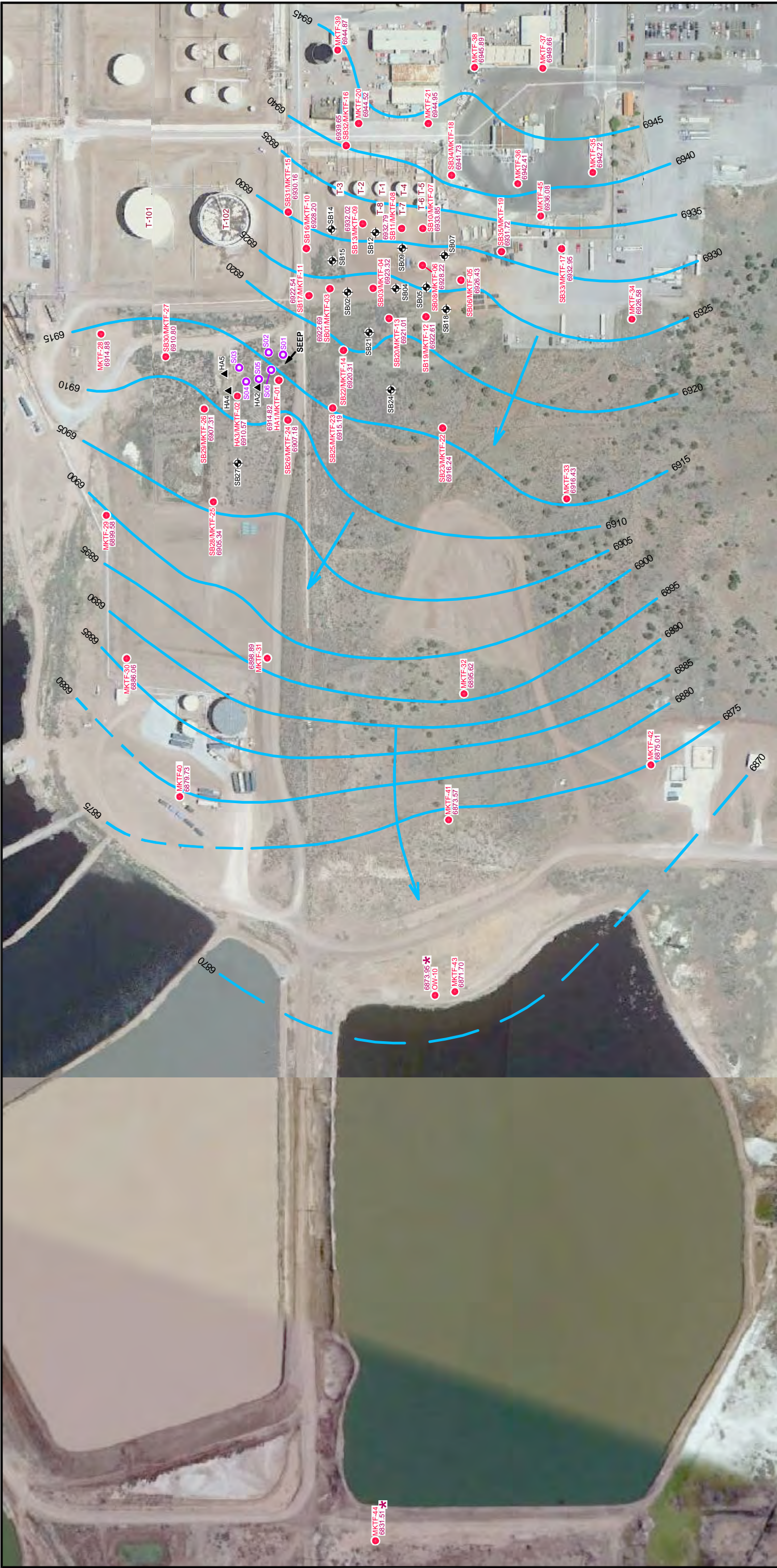
FIGURE 2
AOC 35 MAP



QUADRANGLE LOCATION

LEGEND

- AOC 35 LOCATION
- SB01 TEMPORARY WELL LOCATION (PLUGGED)
- MKTf-34 MONITORING WELL LOCATION (PERMANENT WELL)



Aerial Map Source: Google Map, 01/05/2014.



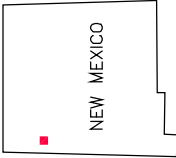
GALLUP REFINERY

PROJ. NO.: Western Refining DATE:05/28/15 FILE:WestRef--dB34

LEGEND

- SB01 TEMPORARY WELL LOCATION (PLUGGED)
- HA1 HAND AUGER LOCATION (PLUGGED)
- S01 TEMPORARY SUMP
- Monitoring Well Location (Permanent Well)

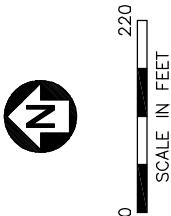
- 6930 POTENTIOMETRIC CONTOUR (FT) (5 FT INTERVAL)
- 6875.01 GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC SURFACE MEASURED RELATIVE TO MEAN SEA LEVEL (MARCH 2015)
- * MEASUREMENT NOT USED IN CONTOURING



QUADRANGLE LOCATION

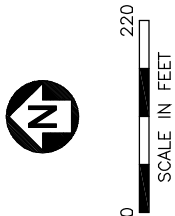
FIGURE 3
POTENTIOMETRIC MAP
MARCH 2015

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Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759





Aerial Map Source: Google Map, 01/05/2014.



GALLUP REFINERY

PROJ. NO.: Western Refining DATE:06/30/15 FILE:WestRef-bB42

FIGURE 5
MTBE
CONCENTRATION MAP
MARCH 2015



QUADRANGLE LOCATION

Disorbo
Environmental Consulting Firm
8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

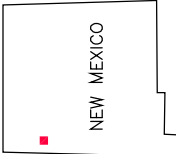


Aerial Map Source: Google Map, 3/18/2016.

PROJ. NO.: Western Refining | DATE: 08/26/18 | FILE: WestRef-dB181

FIGURE 6
PROPOSED SAMPLING LOCATIONS

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Suite 300
Austin, Texas 78759



QUADRANGLE LOCATION

LEGEND

- PROPOSED SOIL BORING LOCATION
- PROPOSED WELL LOCATION
- TEMPORARY WELL LOCATION (PLUGGED)
- MONITORING WELL LOCATION (PERMANENT WELL)

- SB01
- MKTf-34



0 100
SCALE IN FEET

Appendix A

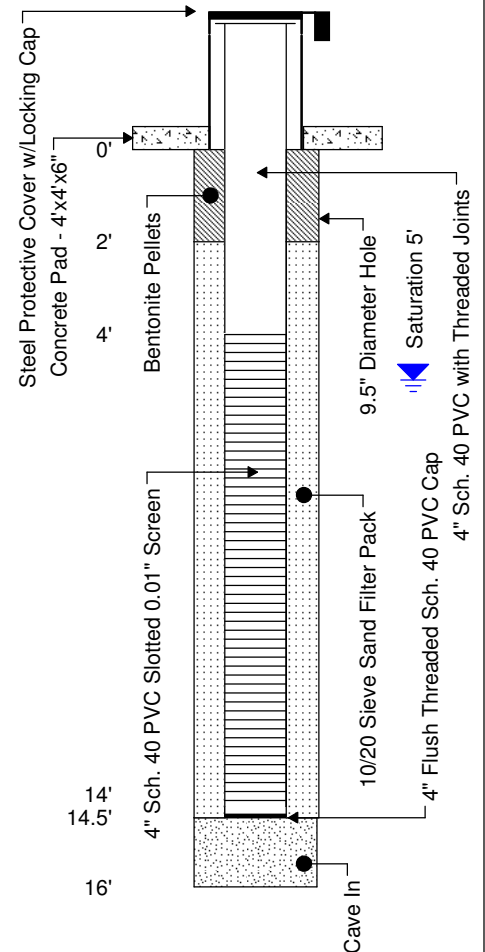
Boring Logs

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.346' W 108°25.782'; Boring ID - HA1

Total Depth: 16' bgl
Ground Water: Saturated @ 5' bgl
Elev., TOC (ft. msl): 6920.67
Elev., PAD (ft. msl): 6918.28
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,864.41 **E** 2,545,561.73

Well No.: MKTF-01
Start Date: 11/14/2013
Finish Date: 11/14/2013

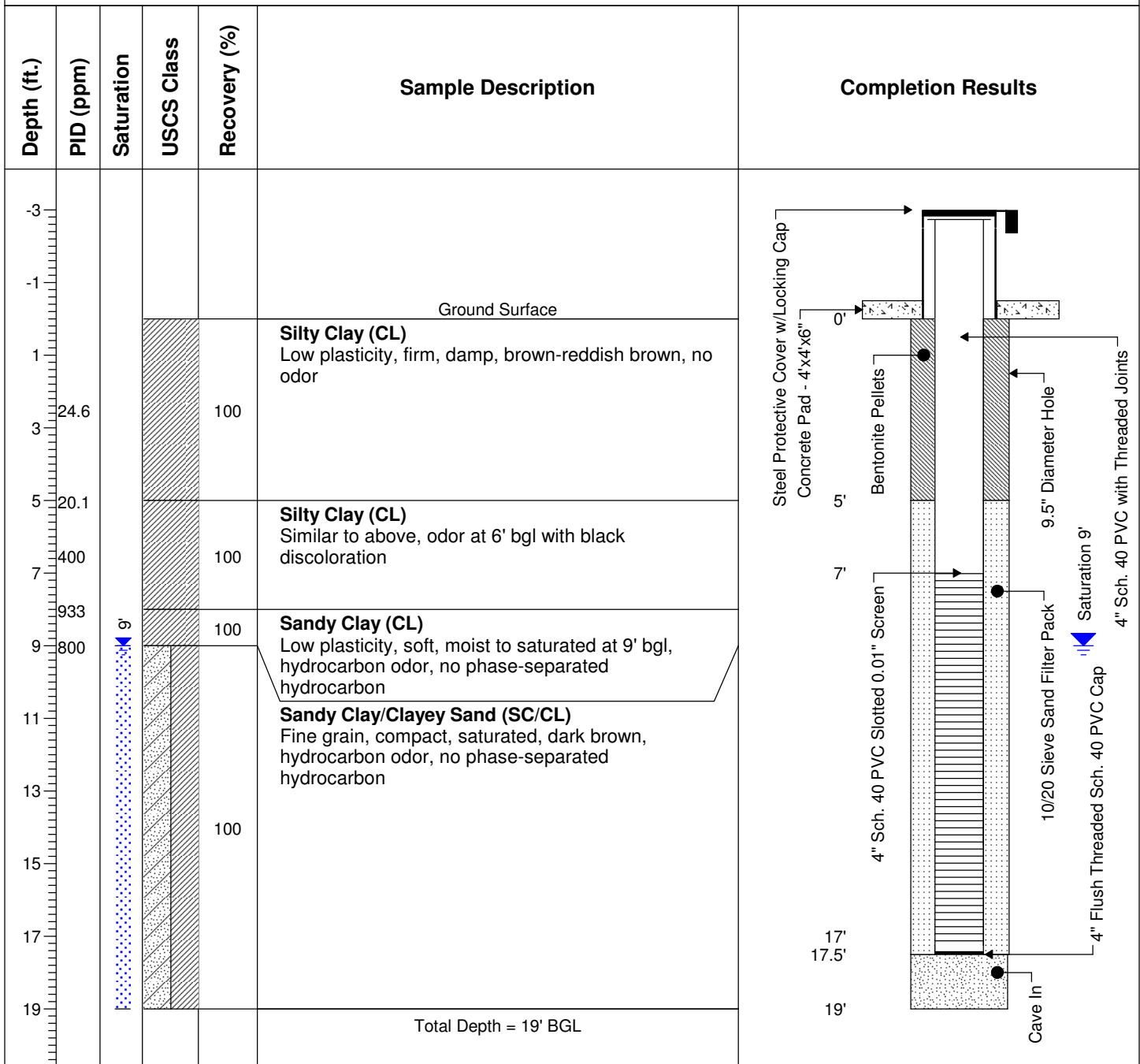
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1				100	Silty Clay (CL) Low plasticity, soft, damp, reddish brown to brown, no odor	
3						
5		5'				
7				100	Silty Clay/Clayey Silt (CL/ML) Low plasticity, very soft, moist to saturated, brown grading to black, gravelly, bio odor, no phase-separated hydrocarbon	
9						
11						
13						
15						
17					Total Depth = 16' BGL	
19						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.360' W 108°25.789'; Boring ID HA3

Total Depth: 19' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6917.45
Elev., PAD (ft. msl): 6915.00
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,946.93 **E** 2,545,530.46

Well No.: MKTF-02
Start Date: 11/14/2013
Finish Date: 11/14/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.328' W108°25.743'; Boring ID - SB01

Total Depth: 19' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6931.31
Elev., PAD (ft. msl): 6931.73
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,746.53 **E** 2,545,756.87

Well No.: MKTF-03
Start Date: 11/7/2013
Finish Date: 11/7/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	164			60	Fill (Silt/Sand) Fine grain, loose, dry to damp, brown, no odor	
3	423			40	Silty Clay (CL) Low plasticity, firm, damp, brown/reddish brown, no odor	
5	330			70	Silty Clay (CL) Similar to above, no odor	
7	75			90	Silty Clay (CL) Similar to above, sandy at base from 7.75-8.0' bgl, no odor	
9	326	8		90	Silty Clay (CL) Fine grain sand seams throughout, saturated, phase-separated hydrocarbon, hydrocarbon odor, clear phase-separated hydrocarbon poured out of split spoon	
11	312			90	Silty Clay (CL) Similar to above with sand seams, saturated with phase-separated hydrocarbon, hydrocarbon odor, dark brown	
13	368			80	Gravelly Sand (SW) Fine to medium to coarse grain, loose, saturated with phase-separated hydrocarbon, black, hydrocarbon odor	
15	700			60	Gravelly Sand (SW) Similar to above	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.328' W 108°25.743'; Boring ID - SB01

Total Depth: 19' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6931.31
Elev., PAD (ft. msl): 6931.73
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,746.53 **E** 2,545,756.87

Well No.: MKTF-03
Start Date: 11/7/2013
Finish Date: 11/7/2013

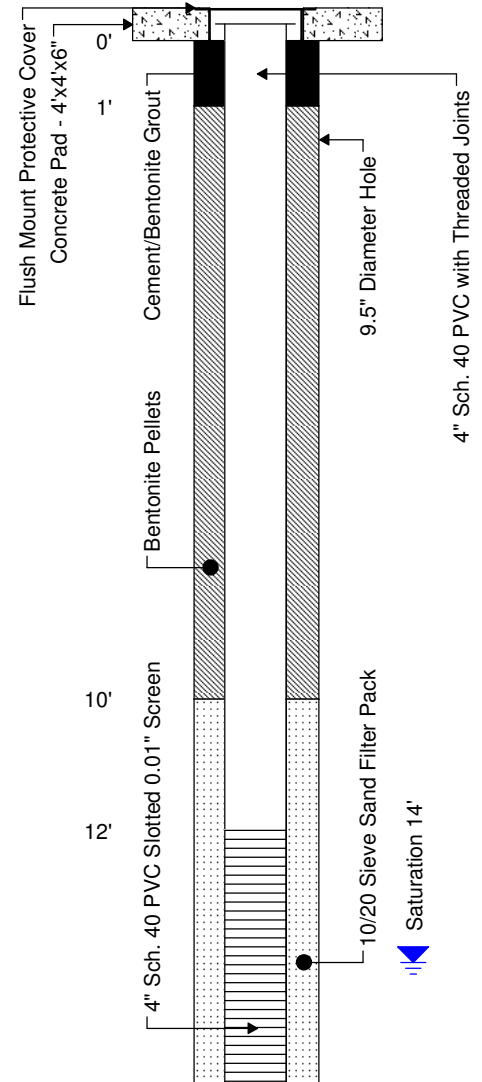
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17				10	Silty Sand/Silty Clay (SM/CL) Low plasticity, firm, moist, brown, faint odor, no phase-separated hydrocarbon	<p>4" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 4" Flush Threaded Sch. 40 PVC Cap Cave In</p>
19	225			80	Silty Clay (CL) Poor recovery	
					Clay (CH) High plasticity, very dense, damp, light reddish brown, faint odor	
Total Depth = 19' BGL						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.310' W 108°25.742'; Boring ID SB03

Total Depth: 24' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6933.57
Elev., PAD (ft. msl): 6933.90
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,649.46 **E** 2,545,752.83

Well No.: MKTF-04
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	10.2			90	Fill (Silt/Gravel) Low plasticity, very dense, dry, light brown, no odor	
3	11.7			80	Fill (Silt/Gravel) Similar to above, black, dense at base, no odor	
5	16			90	Silty Clay (CL) Low plasticity, stiff, damp, reddish brown, no odor, calcareous	
7	26			90	Gravelly Sandy Clay (CL) Low plasticity, loose to firm, damp, brown, no odor	
9	708			70	Silty Clay (CL) Low plasticity, very soft, damp, reddish brown, hydrocarbon odor	
11	369			80	Clay (CH) High plasticity, firm, damp, reddish brown, hydrocarbon odor	
13	660			90	Sandy Clay/Clayey Sand (SC/CL) Low plasticity, fine grain, soft, damp, reddish brown, hydrocarbon odor	
15	85			90	Sandy Clay (SC) Similar to above, saturated sand seams, hydrocarbon odor, brown	



WELL INSTALLATION

Well No.: MKTF-04

Start Date: 11/12/2013

Finish Date: 11/12/2013

Client: Western Refining Southwest, Inc.

Site: Gallup Refinery - Seep West of Tank 102

Job No.: UEC01809

Geologist: Tracy Payne

Driller: Enviro-Drill, Inc.

Drilling Rig: CME 75

Drilling Method: Hollow Stem Augers

Sampling Method: Split Spoon

Comments: N 35°29.310' W 108°25.742'; Boring ID SB03

Total Depth: 24' bgl

Ground Water: Saturated @ 14' bgl

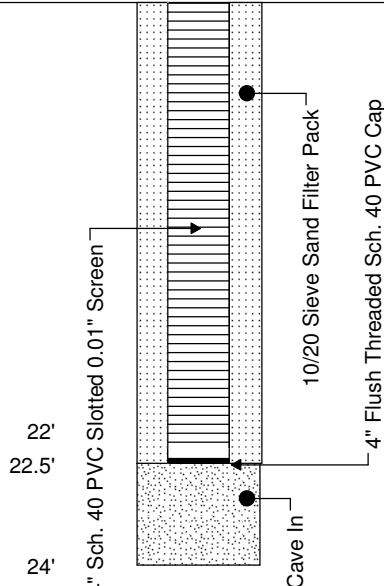
Elev., TOC (ft. msl): 6933.57

Elev., PAD (ft. msl): 6933.90

Elev., GL (ft. msl): --

Site Coordinates:

N 1,633,649.46 E 2,545,752.83

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	64			70	Sandy Clay (SC) Similar to above, moist to saturated, hydrocarbon odor, brown	 <p>The diagram shows a well completion from 22' to 24' depth. It includes a 4" Sch. 40 PVC Slotted 0.01" Screen, a 10/20 Sieve Sand Filter Pack, and a 4" Flush Threaded Sch. 40 PVC Cap. A 'Cave In' is indicated at the bottom of the screen area.</p>
19	33			90	Sandy Clay (SC) Low plasticity, fine grain, soft, moist to saturated, light reddish brown, hydrocarbon odor, gravelly at base Silty Clay (CL) Low plasticity, stiff, damp, light reddish brown grading to yellowish/greenish gray, becomes more silty at base	
21						
23						
25					Total Depth = 24' BGL	
27						
29						
31						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.282' W 108°25.739'; Boring ID - SB06

Total Depth: 15' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6942.22
Elev., PAD (ft. msl): 6939.49
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,472.30 **E** 2,545,769.95

Well No.: MKTF-05
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3					Ground Surface	
1	52.6			60	Fill (Silty Clay/Gravel) Low plasticity, firm, damp, brown, faint odor	
3	180			100	Silty Clay (CL) Low plasticity, firm, damp, reddish brown, odor, calcareous	
5	224			90	Sandy Clay/Clayey Sand (CL/SC) Low plasticity, fine grain, damp, dark brown, hydrocarbon odor, sand seams present	
7	1202			90	Sandy Clay/Clayey Sand (CL) Similar to above	
9	1228			90	Sandy Silty Clay (CL) Low plasticity, soft, damp, dark brown, hydrocarbon odor	
11	1525			90	Sandy Clay (CL) Similar to above, with moist to saturated sand seams, hydrocarbon odor	
13	377			90	Clayey Sand (SC) Fine grain, loose to compact, saturated, hydrocarbon odor, dark brown	
15					Sandy Clay (CL) Low plasticity, soft to firm, moist, dark brown, hydrocarbon odor	
17					Total Depth = 15' BGL	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'; Boring ID - SB08

Total Depth: 21' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): 6946.81
Elev., PAD (ft. msl): 6944.24
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,556.28 **E** 2,545,811.85

Well No.: MKTF-06
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3					Ground Surface	
1	15.9			70	Fill (Silt/Silty Clay) Low plasticity, stiff, dry, light brown, no odor	
3	228			60	Fill (Silty Clay/Gravel) Similar to above, dry, no odor	
5	177			60	Fill (Silty Clay) Similar to above, damp, no odor	
7	264			40	Fill (Silty Clay) Low plasticity, soft, damp, brown, gravel and wood debris	
9				--	No recovery	
11	90			10	Fill (Silty Clay/Gravel) Similar to above	
13	660			100	Sandy Silty Clay (CL) Low plasticity, soft, damp to moist at base, brown, hydrocarbon odor	
15						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.732'; Boring ID - SB08

Total Depth: 21' bgl
Ground Water: Saturated @ 17.5' bgl
Elev., TOC (ft. msl): 6946.81
Elev., PAD (ft. msl): 6944.24
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,556.28 **E** 2,545,811.85

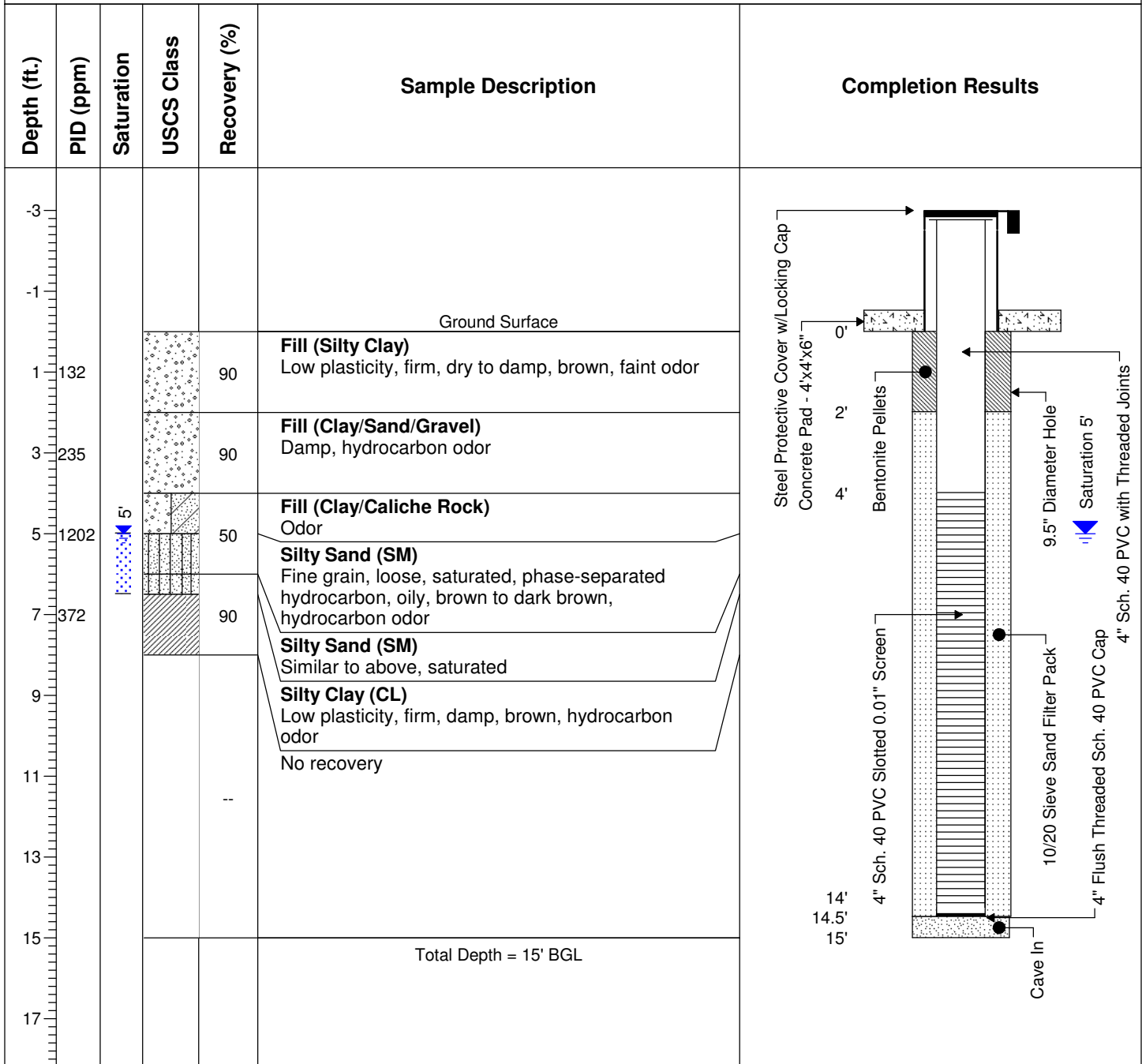
Well No.: MKTF-06
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
1115		17.5'		100	Sandy Silty Clay (CL) Similar to above, moist, oily, hydrocarbon odor	<p>20' 20.5' 21'</p> <p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Cave In</p> <p>4" Flush Threaded Sch. 40 PVC Cap</p> <p>Saturation 17.5'</p>
17				100	Gravelly Sandy Clay (CL) Low plasticity, firm, moist, oily, 1" gravel, strong hydrocarbon odor	
19				100	Clayey Gravel Sand (SC) Fine to medium grain, loose, saturated, phase-separated hydrocarbon present, black, hydrocarbon odor	
21				100	Sandy Clay (CL) Low plasticity, firm, moist, black hydrocarbon odor	
Total Depth = 21' BGL						
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.295' W 108°25.710'; Boring ID - SB10

Total Depth: 15' bgl
Ground Water: Saturated @ 5' bgl
Elev., TOC (ft. msl): 6947.18
Elev., PAD (ft. msl): 6944.40
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,555.11 **E** 2,545,885.42

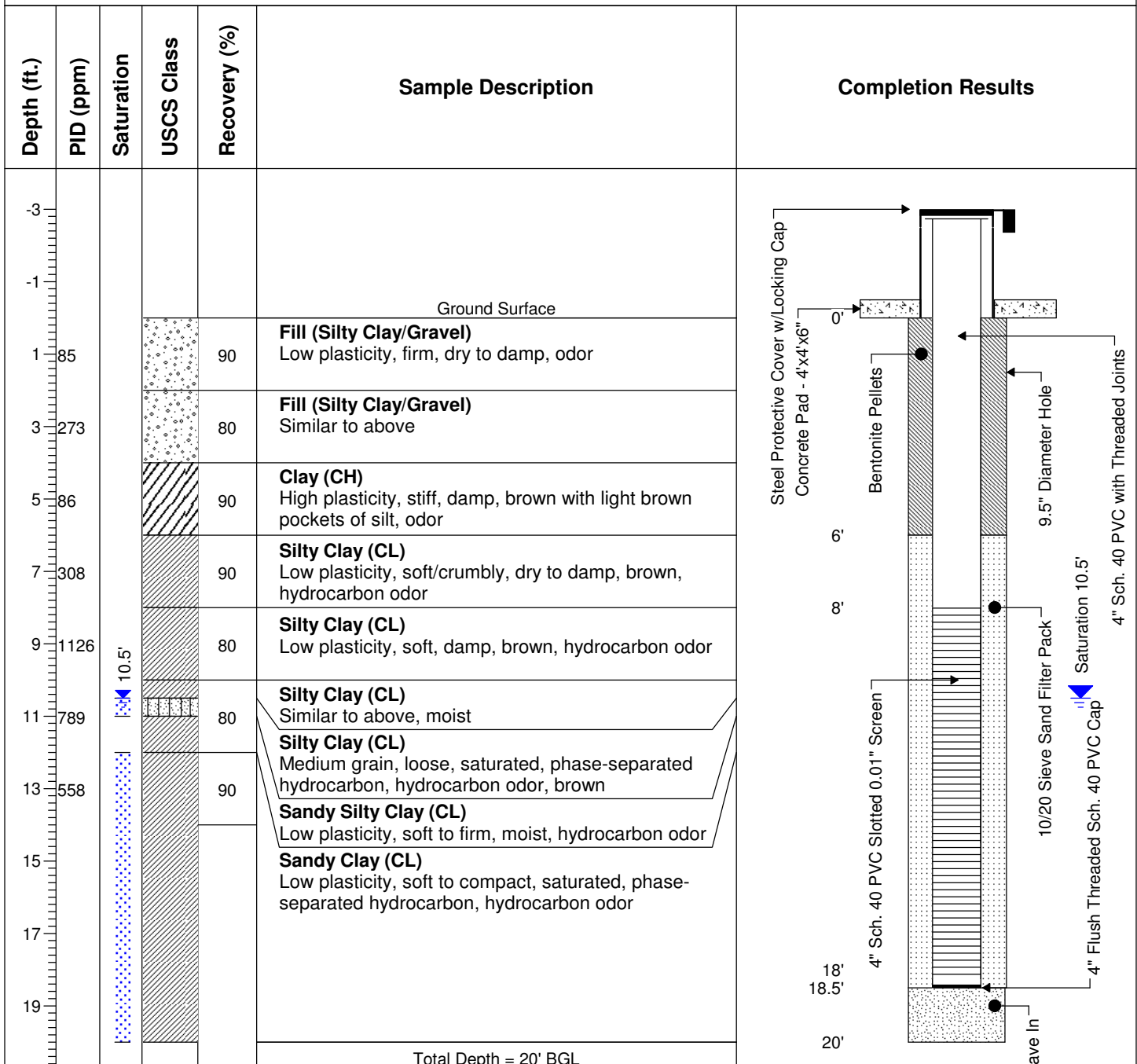
Well No.: MKTF-07
Start Date: 11/11/2013
Finish Date: 11/11/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.302' W 108°25.716'; Boring ID - SB11

Total Depth: 20' bgl
Ground Water: Saturated @ 10.5' bgl
Elev., TOC (ft. msl): 6947.09
Elev., PAD (ft. msl): 6944.02
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,598.94 **E** 2,545,885.02

Well No.: MKTF-08
Start Date: 11/11/2013
Finish Date: 11/11/2013

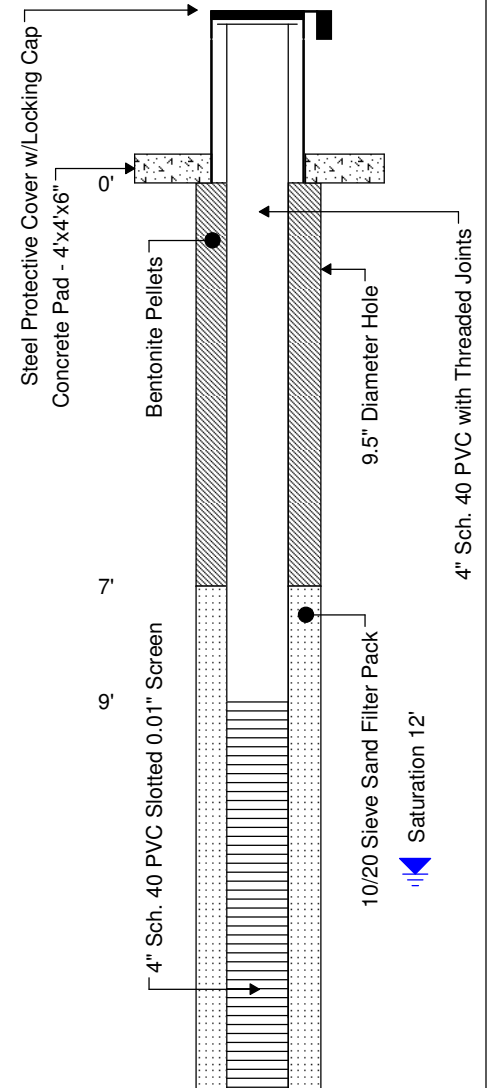


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.316' W 108°25.715'; Boring ID - SB13

Total Depth: 22' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6946.50
Elev., PAD (ft. msl): 6943.57
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,681.33 **E** 2,545,895.93

Well No.: MKTF-09
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
					Ground Surface	
1	21.9			90	Fill (Silty Clay) Low plasticity, stiff, dry to damp, no odor, brown	
3	32.7			90	Fill (Silty Clay) Similar to above, gravel	
5	36.1			90	Silty Clay (CL) Low plasticity, soft, damp, brown, faint odor	
7	37			90	Silty Clay (CL) Similar to above	
9	533			90	Silty Clay (CL) Similar to above	
				90	Sandy Clay (CL) Similar to above, increase in sand and moisture	
11	314			90	Sandy Clay (CL) Similar to above, moist, hydrocarbon odor, dark brown	
13	651			90	Sandy Clay/Clayey Sand (CL/SC) Fine to medium grain, compact, moist to saturated, hydrocarbon odor	
15	587				Sandy Clay/Clayey Sand (CL/SC) Similar to above, saturated, sheen observed on split spoon, black, hydrocarbon odor	



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.316' W 108°25.715'; Boring ID - SB13

Total Depth: 22' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6946.50
Elev., PAD (ft. msl): 6943.57
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,681.33 **E** 2,545,895.93

Well No.: MKTF-09
Start Date: 11/11/2013
Finish Date: 11/11/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17				90	Sandy Clay/Clayey Sand (CL/SC) Fine to medium grain, compact, saturated, sheen observed on split spoon, black, hydrocarbon odor	<p> 10/20 Sieve Sand Filter Pack 4" Sch. 40 PVC Slotted 0.01" Screen Cave In 4" Flush Threaded Sch. 40 PVC Cap </p>
19					Total Depth = 22' BGL	
21						
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.724'; Boring ID SB16

Total Depth: 18' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6937.16
Elev., PAD (ft. msl): 6937.51
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,807.47 **E** 2,545,853.54

Well No.: MKTF-10
Start Date: 10/31/2013
Finish Date: 10/31/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	90			90	Fill (Silt/Gravel) Low plasticity, loose, dry, light brown	
3	14			90	Fill (Silty Clay/Gravel) Similar to above	
5	431			90	Silty Clay (CL) Low plasticity, stiff, dry, reddish brown, odor, calcareous	
7	448			60	Sand (SP) Fine grain, loose, dry, reddish brown, odor	
9	654	9		60	Sand (SP) Similar to above, saturated at 9' bgl, phase-separated hydrocarbon, hydrocarbon odor	
11	1559			90	Clayey Sand (SC) Fine grain, soft, saturated, phase-separated hydrocarbon, brown to black, hydrocarbon odor	
13	713			90	Clayey Sand/Sandy Clay (SC/CL) Low plasticity, firm to stiff, moist to saturated, hydrocarbon odor, dark brown	
15				90		
17						
19					Total Depth = 18' BGL	
21						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.336' W 108°25.739'; Boring ID - SB17

Total Depth: 19' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6931.34
Elev., PAD (ft. msl): 6931.61
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,806.93 **E** 2,545,754.77

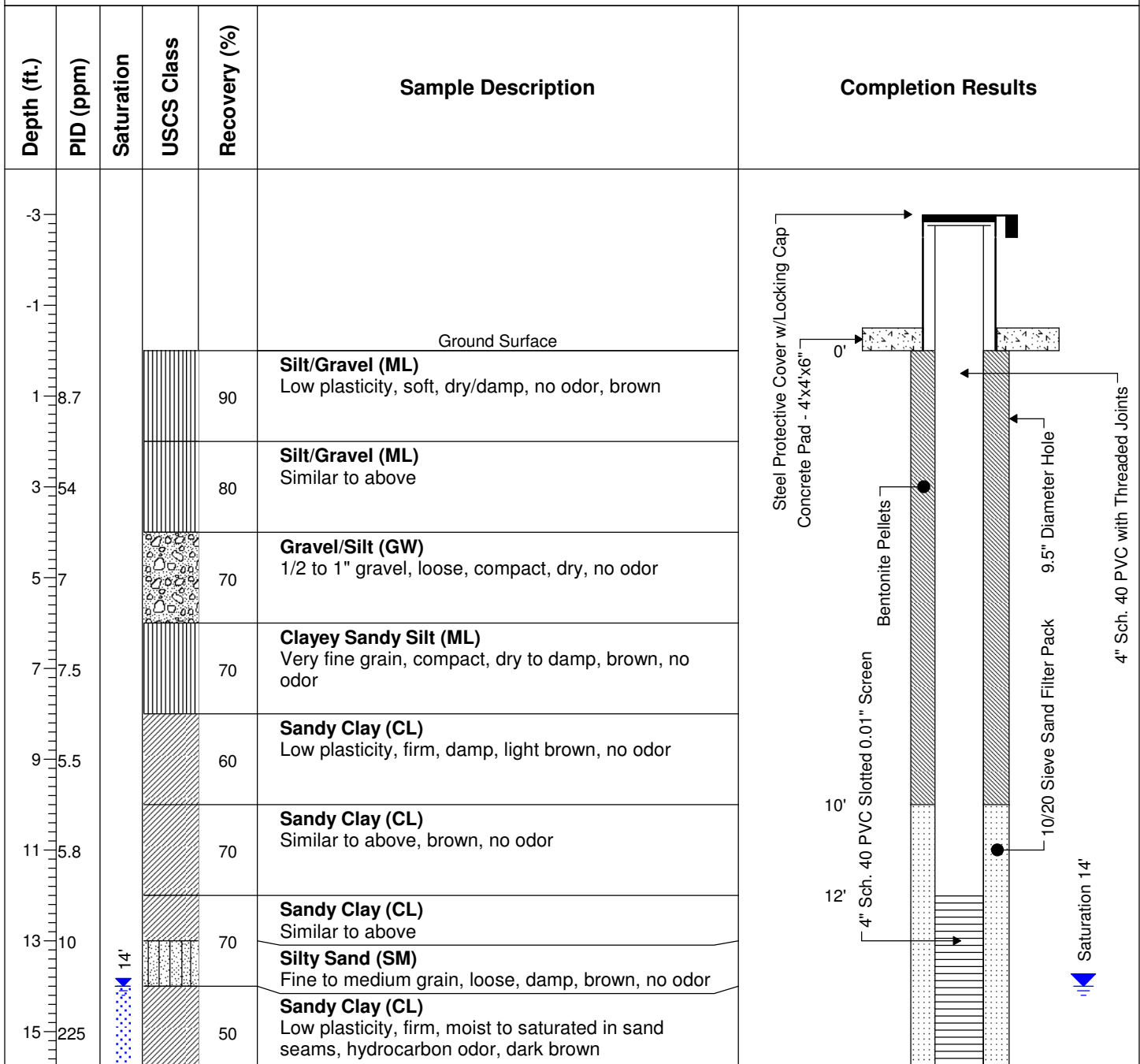
Well No.: MKTF-11
Start Date: 10/31/2013
Finish Date: 10/31/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	14			60	Fill (Silty Clay/Gravel) Low plasticity, stiff, dry, light brown	
3	36			70	Fill (Silty Clay) Similar to above	
5	80			90	Silty Clay (CL) Low plasticity, firm, damp, brown, calcareous	
7	125			80	Silty Clay (CL) Similar to above	
9	1259			80	Silty Clay (CL) Low plasticity, firm, damp, oily, hydrocarbon odor, dark brown	
11	860	12		70	Silty Clay (CL) Similar to above, moist, hydrocarbon odor, oily, phase-separated hydrocarbon	
13	1716			60	Sandy Clay (CL) Low plasticity, soft, moist to saturated, hydrocarbon odor, dark brown	
15	1050			70	Silty Sand (SM) Medium grain, loose, saturated, hydrocarbon odor, dark brown to black	
17				70	Sandy/Silty Clay (CL) Low plasticity, firm, saturated, dark brown to black, hydrocarbon odor	
19					Total Depth = 19' BGL	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'; Boring ID - SB19

Total Depth: 23' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6942.11
Elev., PAD (ft. msl): 6939.70
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,542.07 **E** 2,545,688.29

Well No.: MKTF-12
Start Date: 11/7/2013
Finish Date: 11/7/2013



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.294' W 108°25.754'; Boring ID - SB19

Total Depth: 23' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6942.11
Elev., PAD (ft. msl): 6939.70
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,542.07 **E** 2,545,688.29

Well No.: MKTF-12
Start Date: 11/7/2013
Finish Date: 11/7/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	319			70	Sandy Clay (CL) Similar to above, moist, hydrocarbon odor	<p>10/20 Sieve Sand Filter Pack</p> <p>4" Sch. 40 PVC Slotted 0.01" Screen</p> <p>4" Flush Threaded Sch. 40 PVC Cap</p> <p>Cave In</p>
19	400			--	Sandy Clay (CL) Similar to above, moist, hydrocarbon odor	
21	532			--	Sandy Clay/Clayey Sand (CL) Very fine grain, compact, moist to saturated, sheen observed in split spoon, hydrocarbon odor	
23					Total Depth = 23' BGL	
25						
27						
29						
31						
33						



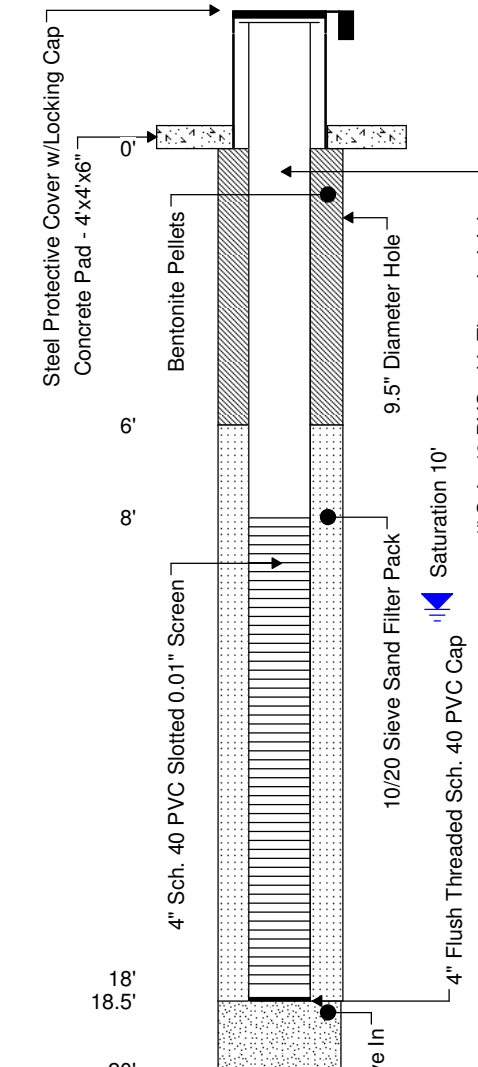
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.307' W 108°25.755'; Bo

Total Depth: 20' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6935.18
Elev., PAD (ft. msl): 6933.67
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,625.25 **E** 2,545,697.39

Well No.: MKTF-13
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	8			90	Silt (ML) Low plasticity, soft, damp, brown, no odor	
3	12.7			90	Silt (ML) Similar to above, trace gravel	
5	13			80	Sandy Clay (CL) Low plasticity, stiff, dry, brown, calcareous	
7	17			90	Silty Sand/Sandy Silt (SM/ML) Very fine grain, loose to compact, dry, calcareous, brown	
9	59			90	Sandy Silt (ML) Similar to above, no odor	
11	1165			90	Sandy Clay/Clayey Sand (SC/CL) Medium grain, compact, moist to saturated, hydrocarbon odor, brown	
13	1200			90	Clayey Sand (SC) Similar to above, saturated, hydrocarbon odor	
15						
17						
19						
Total Depth = 20' BGL						



Steel Protective Cover w/Locking Cap

Concrete Pad - 4'x4'x6"

Bentonite Pellets

9.5" Diameter Hole

4" Sch. 40 PVC with Threaded Joints

4" Sch. 40 PVC Slotted 0.01" Screen

10/20 Sieve Sand Filter Pack

Saturation 10'

4" Flush Threaded Sch. 40 PVC Cap

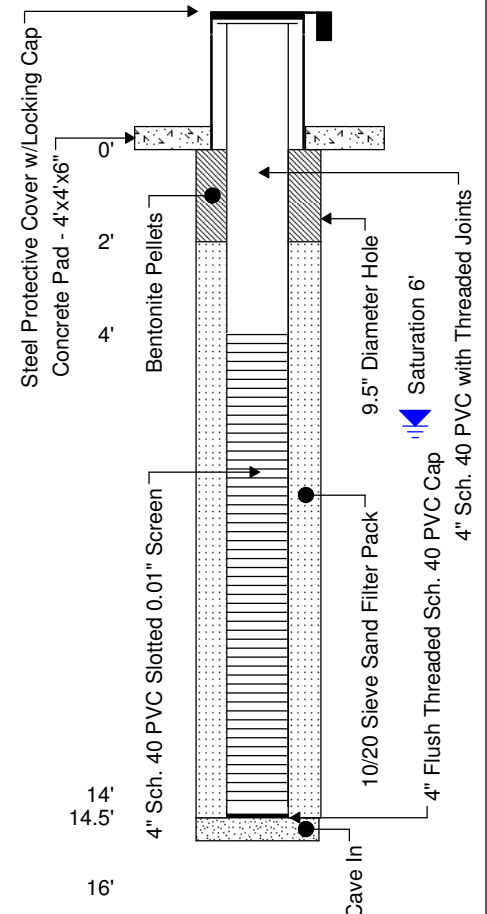
Cave In

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.323' W 108°25.769'; Boring ID SB22

Total Depth: 15' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): 6928.02
Elev., PAD (ft. msl): 6925.65
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,719.43 **E** 2,545,625.96

Well No.: MKTF-14
Start Date: 11/12/2013
Finish Date: 11/12/2013

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	18			20	Silty Clay (CL) Low plasticity, soft, damp, brown	
3	308			90	Silty Clay (CL) Similar to above, odor	
5	793	6'		90	Sandy Clay (CL) Low plasticity, firm, moist, oily, brown, trace gravel	
7	504			90	Clayey Sand (SC) Medium grain, loose to compact, saturated, phase-separated hydrocarbon, hydrocarbon odor, black	
9	760			90	Clayey Sand (SC) Similar to above	
11						
13						
15					Total Depth = 15' BGL	
17						
19						

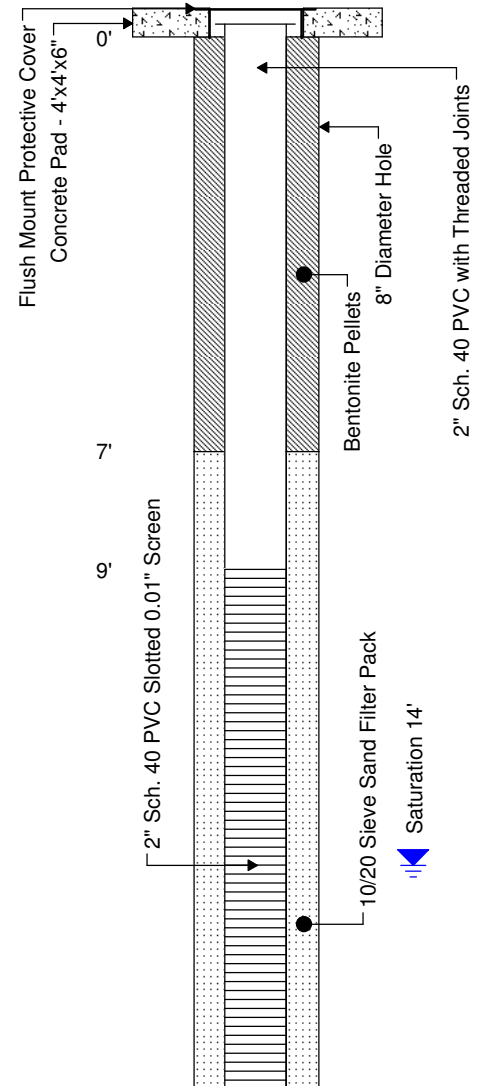


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.343' W 108°25.708'; Boring ID - SB31

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6943.48
Elev., PAD (ft. msl): 6943.74
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,845.57 **E** 2,545,934.58

Well No.: MKTF-15
Start Date: 10/29/2013 09:30
Finish Date: 10/29/2013 12:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1	6.7			0	Fill (Clay and Gravel) No recovery	
3	14.6			90	Fill (Clay and Gravel) Reddish brown	
5				90	Fill (Clay and Gravel) Similar to above, no odor	
7	823			90	Fill (Silty Clay) Reddish brown, hydrocarbon odor	
9	1004			90	Silty Sandy Clay (CL) Low plasticity, firm to soft, damp, reddish brown, hydrocarbon odor	
11	293			70	Silty Sand (SM) Fine grain, compact, damp, light reddish brown, no odor	
13	221			80	Sand (SP) Similar to above, odor, moist to very moist	
15				80	Sand (SP) Fine to medium grain, loose, saturated, brown, hydrocarbon odor, phase-separated hydrocarbon present	
17				60	Sandy Silt (ML) Low plasticity, very soft, damp to moist, brown, hydrocarbon odor	



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.343' W 108°25.708'; Boring ID - SB31

Total Depth: 22' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): 6943.48
Elev., PAD (ft. msl): 6943.74
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,845.57 **E** 2,545,934.58

Well No.: MKTF-15
Start Date: 10/29/2013 09:30
Finish Date: 10/29/2013 12:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
19				90	Sandy Silt/Silty Sand (ML/SM) Fine grain, loose to compact, moist to saturated, hydrocarbon odor, dark brown to black	<p>19' 19.33'</p> <p>22'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>Bentonite Pellets</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
					Sandy Silt/Silty Sand (ML/SM) Similar to above, saturated in silty sand lenses, hydrocarbon odor	
21				90	Silty Clay (CL) Low plasticity, firm, damp, brown, faint odor	
					Silty Clay (CL) Similar to above, odor	
23					Total Depth = 22' BGL	
25						
27						
29						
31						
33						
35						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.323' W 108°25.680'; Boring ID - SB32

Total Depth: 16' bgl
Ground Water: Saturated @ 9' bgl
Elev., TOC (ft. msl): 6950.58
Elev., PAD (ft. msl): 6951.00
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,718.14 **E** 2,546,068.55

Well No.: MKTF-16
Start Date: 11/7/2013 08:40
Finish Date: 11/7/2013 11:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	<p>Flush Mount Protective Cover Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Flush Threaded Sch. 40 PVC Cap 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints Bentonite Pellets 14.33' 16'</p>
1				0	Fill (Clay/Gravel) No recovery	
3	469			10	Fill (Clay/Gravel) Similar to above	
5				0	Fill (Clay/Gravel) Similar to above	
7				0	Fill (Clay/Gravel) Similar to above	
9	1445	9'		90	Fill (Clay/Gravel) Saturated at 9' bgl, black discoloration, hydrocarbon odor	
11	1255			90	Gravelly Sand (SW) High plasticity, firm, damp, dark brown, hydrocarbon odor	
13	1412			40	Clayey Sand (SC) Similar to above, hydrocarbon odor	
15	439			80	Clayey Sand (SC) Moderate plasticity, firm, damp, brown, hydrocarbon odor	
17					Total Depth = 16' BGL	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.248' W 108°25.724'; Boring ID - SB33

Total Depth: 25' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6945.76
Elev., PAD (ft. msl): 6945.79
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,268.93 **E** 2,545,850.73

Well No.: MKTF-17
Start Date: 11/14/2013 13:00
Finish Date: 11/14/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	<p>Flush Mount Protective Cover Concrete Pad - 4'x4'x6" 8" Diameter Hole Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 2" Sch. 40 PVC with Threaded Joints</p>
1				10	Fill (Asphalt/Base/Clay) Low plasticity, soft, damp, brown	
3	150			10	Fill (Clay) Similar to above	
5	157			90	Fill (Sand/Gravel/Clay) Moist to very moist, reddish brown, no odor	
7	92.1			20	Fill (Sand/Gravel/Clay) Similar to above, saturated, odor	
9	65.9			90	Clay (CH) High plasticity, firm, damp, faint odor, brown	
11	17			60	Clay (CH) Similar to above	
13	55			70	Clay (CH) High plasticity, soft, damp, dark brown and black, odor	
15	17.5			60	Clay (CH) Similar to above, faint odor	
17	11.3			10	Clay (CH) Similar to above, trace fine grain sand	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.248' W 108°25.724'; Boring ID - SB33

Total Depth: 25' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6945.76
Elev., PAD (ft. msl): 6945.79
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,268.93 **E** 2,545,850.73

Well No.: MKTF-17
Start Date: 11/14/2013 13:00
Finish Date: 11/14/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17.2		20'		10	Clay (CH) High plasticity, soft, damp, brown	<p>24' 24.33' 25'</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>Saturation 20'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				70	Sandy Clay (CH) Moderate plasticity, soft, very moist to saturated in sand seams	
22				80	Silty Clayey Gravel (GM) Compact to loose, medium grain sand to 1/4" gravel - angular, saturated, brown	
24				90	Clay (CH) Moderate plasticity, firm to stiff, damp, greenish gray	
26					Total Depth = 25' BGL	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-1					Ground Surface	
1				--	Fill (Gravel and Silty Clay)	
3	1009			20	Fill (Gravel and Silty Clay) Similar to above, strong hydrocarbon odor, damp	
5	693			60	Fill (Gravel and Silty Clay) Similar to above	
7	1108			70	Fill (Silty Clay) Low plasticity, firm, damp, brown, gravel present, strong hydrocarbon odor	
9	901			90	Fill (Clay/Sand/Gravel) Similar to above, saturated, odor, sheen observed	
11	803			60	Clay (CH) High plasticity, stiff, damp, brown, hydrocarbon odor	
13	254			70	Clay (CH) Similar to above, very fine grain, sand in partings	
15	200			30	Clay (CH) Similar to above	
17				--	No recovery	

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.692'; Boring ID - SB34

Total Depth: 27' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6950.65
Elev., PAD (ft. msl): 6950.97
Elev., GL (ft. msl): --
Site Coordinates:
N 1,633,497.53 **E** 2,546,006.29

Well No.: MKTF-18
Start Date: 11/15/2013 10:00
Finish Date: 11/15/2013 15:00

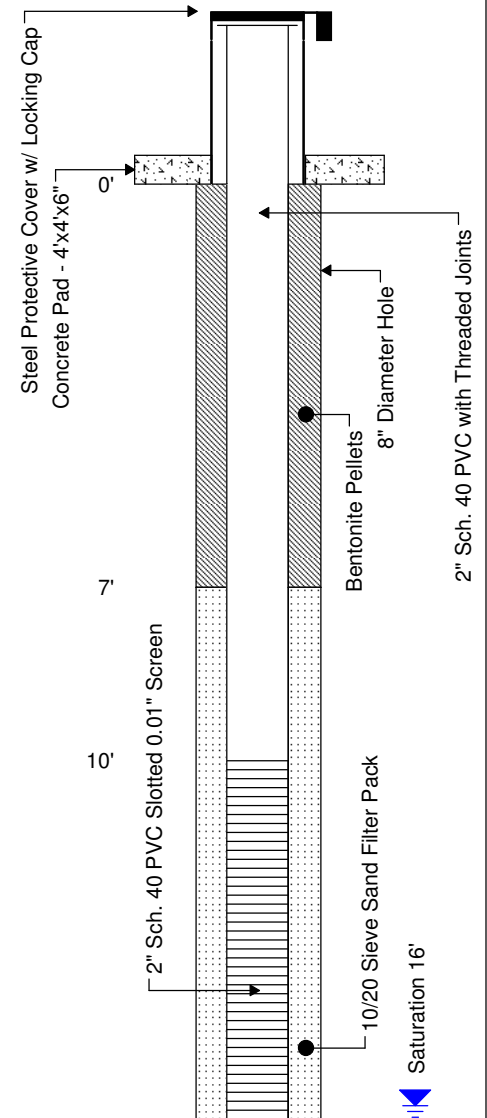
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
112				30	Clay (CH) High plasticity, firm, damp, brown, faint odor	<p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>10/20 Sieve Sand Filter Pack</p> <p>Saturation 23'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>27' 27.5'</p>
20				20	Clay (CH) Similar to above	
55						
22						
323				80	Clay (CH) Similar to above	
24					Sandy Clay/Clayey Sand (SC/CL) Fine grain, compact, very moist to saturated, brown, hydrocarbon present	<p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>10/20 Sieve Sand Filter Pack</p> <p>Saturation 23'</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>27' 27.5'</p>
26				90	Clayey Sand (SC) Similar to above, saturated	
28					Sandy Clay (CL) Low plasticity, firm, damp, hydrocarbon odor, greenish gray	
30					Total Depth = 27' BGL	
32						
34						
36						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1				-	Fill (Asphate/Base/Clay) Odor	
3	1178			50	Fill (Silty Clay/Sandy Gravel) Brown, strong hydrocarbon odor	
5	1232			90	Fill (Silty Clay/Sandy Gravel) Similar to above, gray discoloration, strong hydrocarbon odor	
7	120			80	Clay (CH) High plasticity, stiff, damp, brown, odor, calcareous, sampling tube is oily	
9	375			70	Clay (CH) Similar to above, odor, oily	
11	601			70	Silty Sandy Clay (CL) Moderate plasticity, firm, damp, brown, hydrocarbon odor, sampling tube is oily	
13	1279			70	Sandy Clay (CL) Low plasticity, soft, damp to moist in sand seams, brown, strong hydrocarbon odor	
15	249			90	Sandy Clay (CL) Similar to above, hydrocarbon odor, tube is oily	
16'						



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

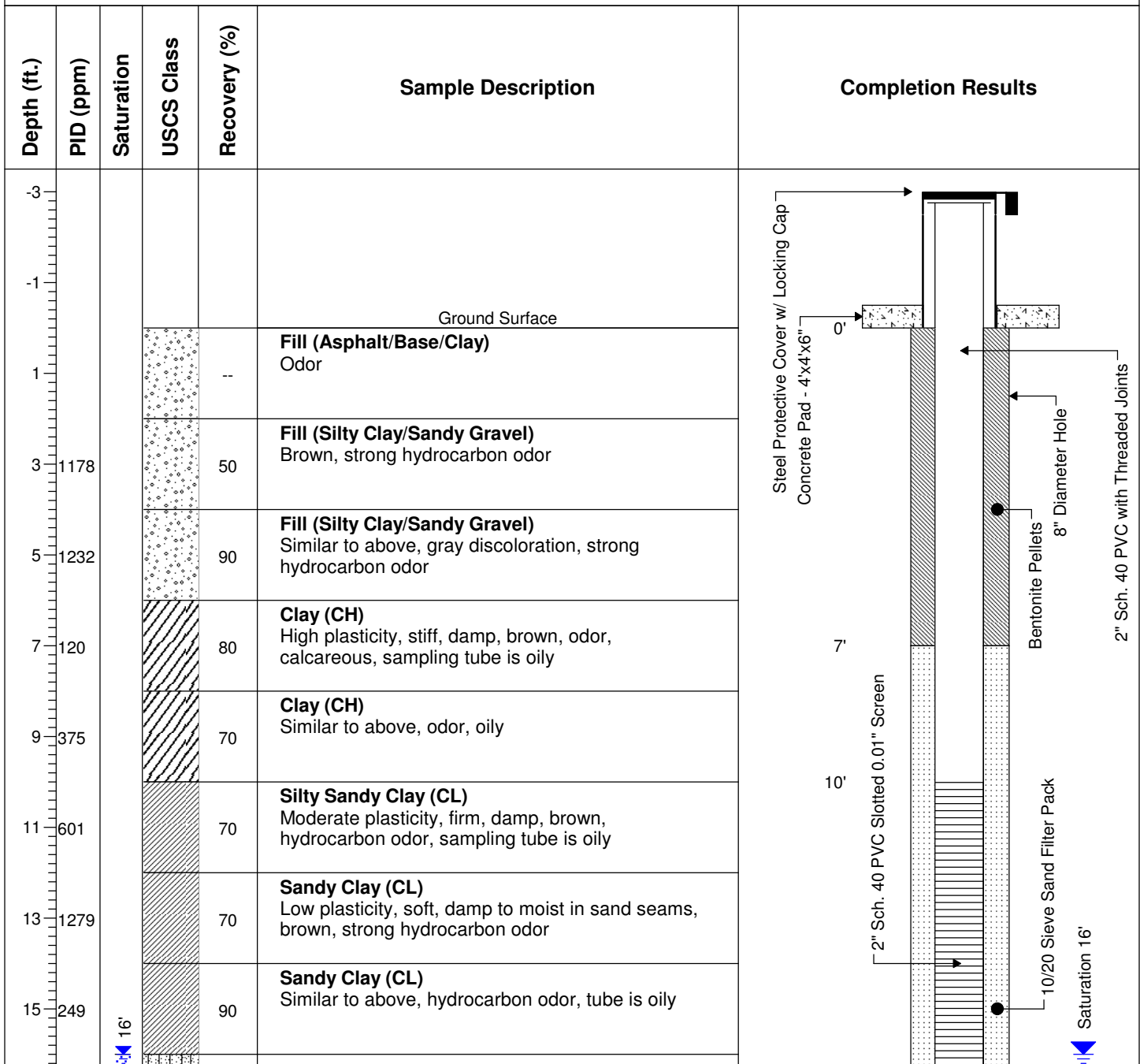
Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
18				90	Silty Sand (SM) Fine grain, loose, saturated, oily/phase-separated hydrocarbon, hydrocarbon odor, clay at base	<p>20' 20.33' 20.5'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				90	Silty Sand (SM) Similar to above	
Total Depth = 20' BGL						
22						
24						
26						
28						
30						
32						
34						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): 6944.67
Elev., PAD (ft. msl): 6944.89
Elev., GL (ft. msl): 6944.34
Site Coordinates:
N 1633381.19 **E** 2545842.82

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.268' W 108°25.726'; Boring ID - SB35

Total Depth: 20' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): 6944.67
Elev., PAD (ft. msl): 6944.89
Elev., GL (ft. msl): 6944.34
Site Coordinates:
N 1633381.19 **E** 2545842.82

Well No.: MKTF-19
Start Date: 11/5/2013 08:50
Finish Date: 11/5/2013 11:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
18				90	Silty Sand (SM) Fine grain, loose, saturated, oily/phase-separated hydrocarbon, hydrocarbon odor, clay at base	<p>20' 20.33' 20.5'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
20				90	Silty Sand (SM) Similar to above	
Total Depth = 20' BGL						
22						
24						
26						
28						
30						
32						
34						

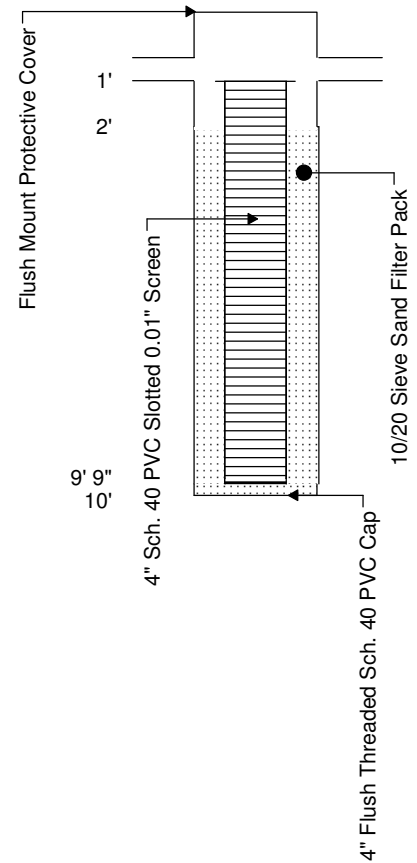
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Not Applicable
Driller: Western Refining Southwest, Inc.
Drilling Rig: Not Applicable
Drilling Method: Not Applicable
Sampling Method: Not Applicable
Comments: N 35°29.319' W 108°25.674'; Boring ID: Sump-N

Total Depth: 10' bgl
Ground Water: 7.86' ft. BTOC
Elev., TOC (ft. msl): 6951.78
Elev., PAD (ft. msl): 6951.89
Elev., GL (ft. msl): 6951.17
Site Coordinates:
N 1633698.28 **E** 2546111.23

Well No.: MKTF-20
Start Date: 2/10/2014
Finish Date: 2/10/2014

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1					Ground Surface	
3					Fill Material	
5						
7						
9						
11					Total Depth = 10' BGL	
13						
15						
17						
19						



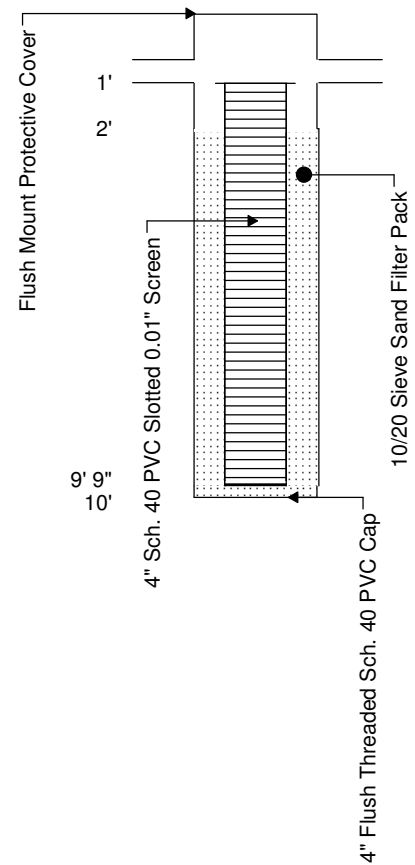
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Not Applicable
Driller: Western Refining Southwest, Inc.
Drilling Rig: Not Applicable
Drilling Method: Not Applicable
Sampling Method: Not Applicable
Comments: N 35°29.295' W 108°25.675'; Boring ID: Sump-S

Total Depth: 10' bgl
Ground Water: 7.60' ft. BTOC
Elev., TOC (ft. msl): 6952.57
Elev., PAD (ft. msl): 6952.68
Elev., GL (ft. msl): 6952.00
Site Coordinates:
N 1633570.30 **E** 2546110.00

Well No.: MKTF-21
Start Date: 2/10/2014
Finish Date: 2/10/2014

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1						
1					Ground Surface	
3					Fill Material	
5						
7						
9						
11					Total Depth = 10' BGL	
13						
15						
17						
19						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.802'; Boring ID - SB23

Total Depth: 32' bgl
Ground Water: Saturated @ 26' bgl
Elev., TOC (ft. msl): 6942.31
Elev., PAD (ft. msl): 6939.76
Elev., GL (ft. msl): 6938.57
Site Coordinates:
N 1633501.64 **E** 2545478.20

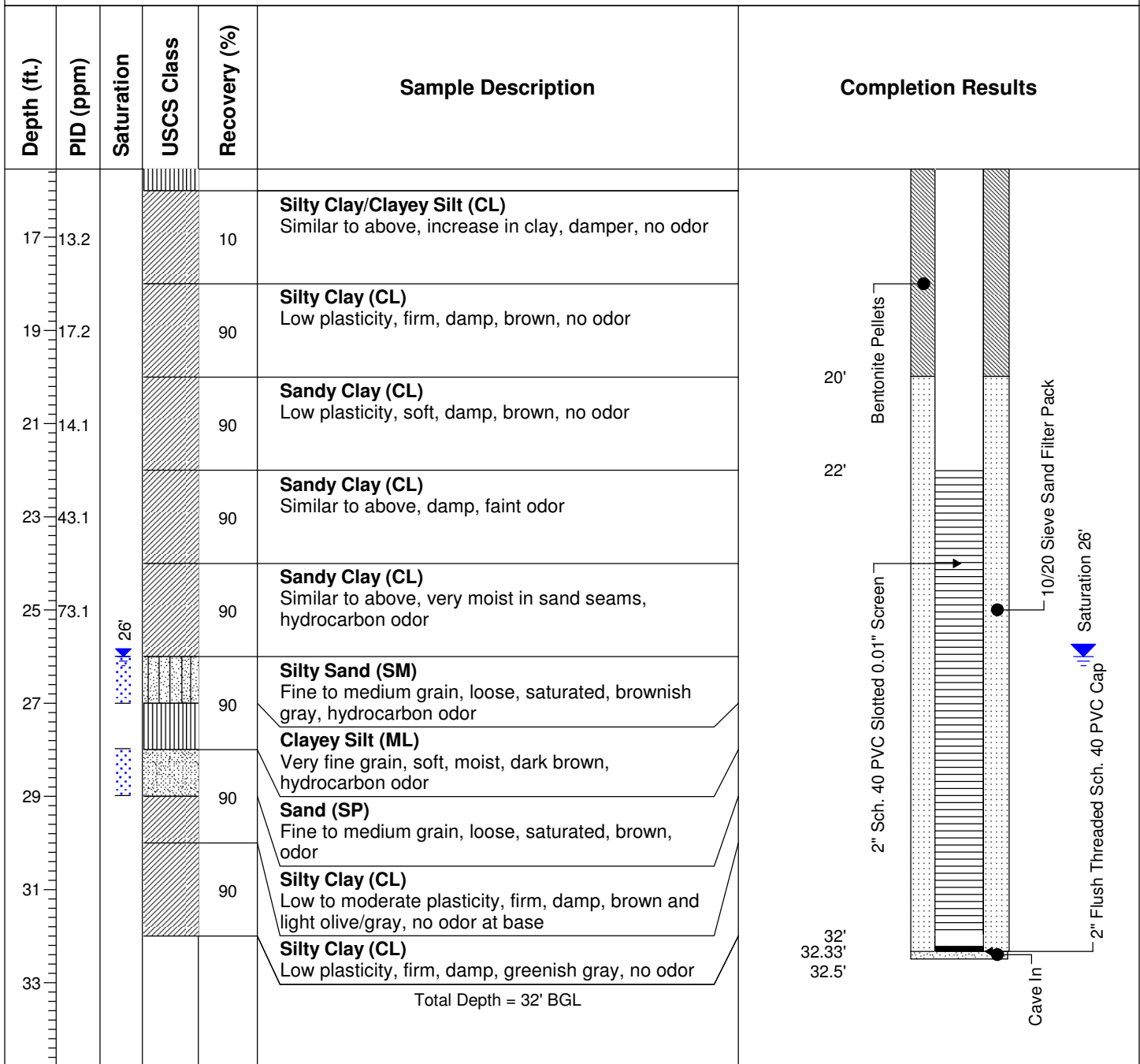
Well No.: MKTF-22
Start Date: 11/8/2013 12:15
Finish Date: 11/8/2013 15:30

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	3.4			10	Clayey Silt (ML) Low plasticity, very fine grain, compact to loose, damp, tan, no odor	
3	8.9			20	Clayey Silt (ML) Similar to above	
5	7.0			20	Clayey Silt (ML) Similar to above	
7	7.9			50	Clayey Silt (ML) Similar to above, light brown, no odor	
9	6.4			40	Clayey Silt (ML) Low plasticity, stiff, damp, light brown, no odor	
11	13.7			50	Clayey Silt (ML) Similar to above	
13	12.7			10	Clayey Silt (ML) Similar to above, very stiff	
15	10.1			70	Clayey Silt (ML) Very fine grain, stiff, damp, brown, no odor, becomes sandy at base	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.288' W 108°25.802'; Boring ID - SB23

Total Depth: 32' bgl
Ground Water: Saturated @ 26' bgl
Elev., TOC (ft. msl): 6942.31
Elev., PAD (ft. msl): 6939.76
Elev., GL (ft. msl): 6938.57
Site Coordinates:
N 1633501.64 **E** 2545478.20

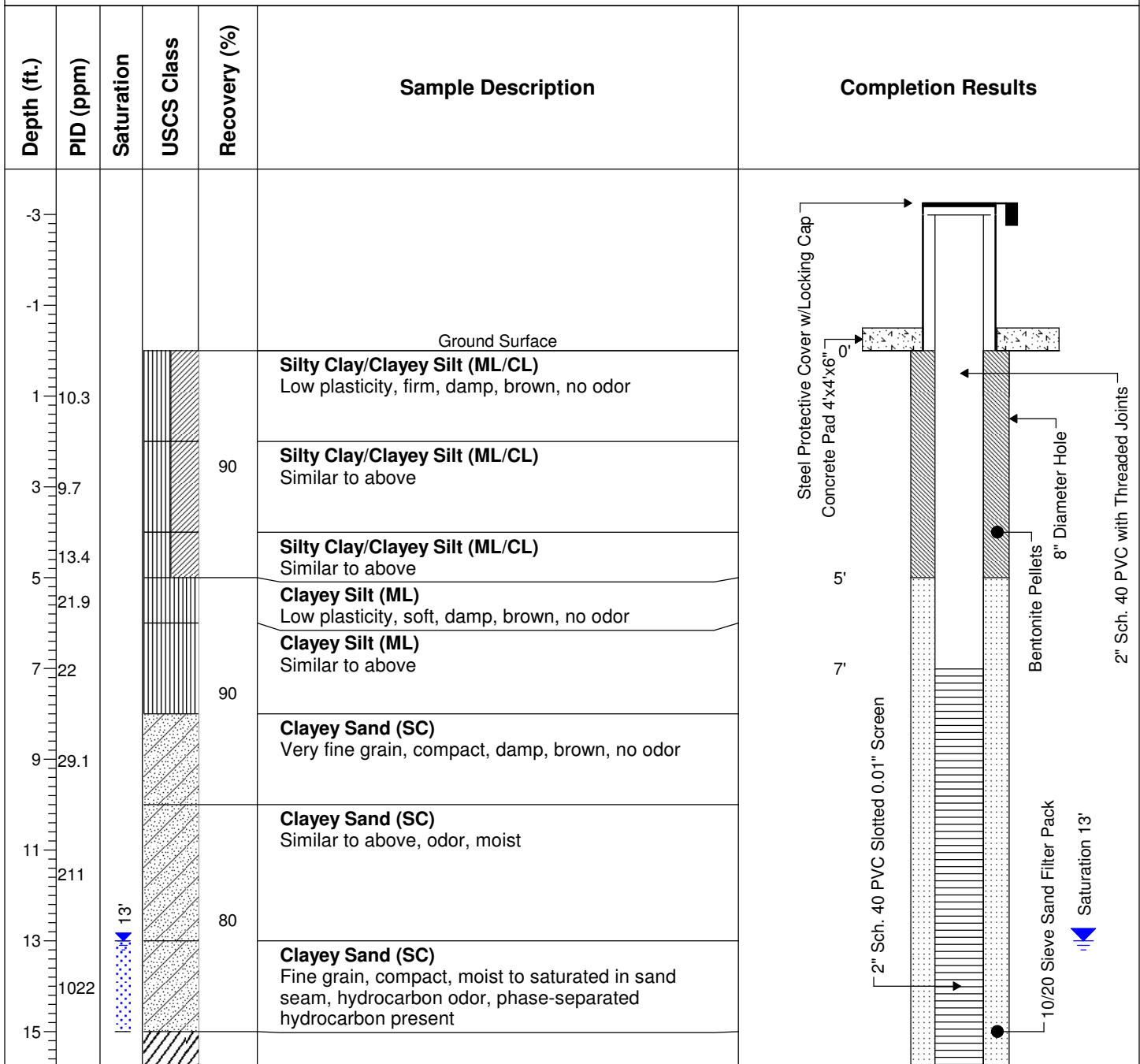
Well No.: MKTF-22
Start Date: 11/8/2013 12:15
Finish Date: 11/8/2013 15:30



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Five-Foot Core Barrel
Comments: N 35°29.327' W 108°25.795'; Boring ID - SB25

Total Depth: 20' bgl
Ground Water: Saturated @ 13' bgl
Elev., TOC (ft. msl): 6929.98
Elev., PAD (ft. msl): 6927.23
Elev., GL (ft. msl): 6925.79
Site Coordinates:
N 1633750.93 **E** 2545503.70

Well No.: MKTF-23
Start Date: 11/4/2013 14:00
Finish Date: 11/4/2013 16:00



WELL INSTALLATION

Well No.: MKTF-23

Start Date: 11/4/2013 14:00

Finish Date: 11/4/2013 16:00

Client: Western Refining Southwest, Inc.

Site: Gallup Refinery - Seep West of Tank 102

Job No.: UEC01809

Geologist: Tracy Payne

Driller: Enviro-Drill, Inc.

Drilling Rig: CME 75

Drilling Method: Hollow Stem Augers

Sampling Method: Five-Foot Core Barrel

Comments: N 35°29.327' W 108°25.795'; Boring ID - SB25

Total Depth: 20' bgl

Ground Water: Saturated @ 13' bgl

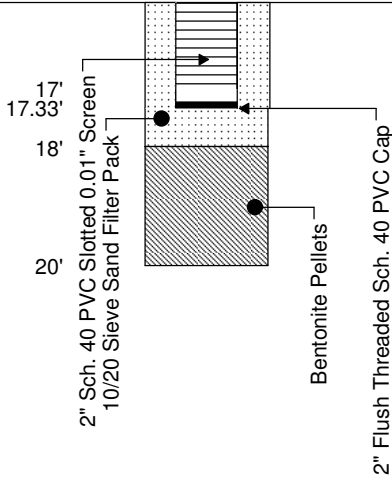
Elev., TOC (ft. msl): 6929.98

Elev., PAD (ft. msl): 6927.23

Elev., GL (ft. msl): 6925.79

Site Coordinates:

N 1633750.93 **E** 2545503.70

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
32.6					Clay (CH) High plasticity, stiff, damp, brown, no odor	 <p>17' 17.33' 18' 20'</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack</p> <p>Bentonite Pellets</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p>
28.9				90		
19					Sandy Clay (CL) Moderate plasticity, firm, damp, brown and gray, no odor	
22.7						
21					Total Depth = 20' BGL	
23						
25						
27						
29						
31						
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.342' W 108°25.800'; Boring ID - SB26

Total Depth: 30' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6928.72
Elev., PAD (ft. msl): 6926.07
Elev., GL (ft. msl): 6924.62
Site Coordinates:
N 1633853.19 **E** 2545468.48

Well No.: MKTF-24
Start Date: 10/29/2013 13:15
Finish Date: 10/29/2013 16:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						<p>Steel Protective Cover w/Locking Cap Concrete Pad 4'x4'x6" 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints Bentonite Pellets</p>
-1					Ground Surface	
1	14.1			90	Silt/Silty Sand (ML/SM) Very fine to fine grain, loose, dry, brown	
3	11.2			10	Silty Sand (SM) Fine grain, compact/very dense, damp, brown	
5	12.5			90	Silty Sandy Clay (CL) Low plasticity, very dense, damp, brown	
7	11.8			90	Silty Sandy Clay (CL) Similar to above	
9	14.8			60	Silty Sandy Clay (CL) Similar to above	
11	12.5			90	Silty Sandy Clay (CL) Similar to above	
13	12.8			90	Silty Sandy Clay (CL) Similar to above	
15	13.4			90	Clay (CH) High plasticity, firm, damp, brown, trace silt, no odor	

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.342' W 108°25.800'; Boring ID - SB26

Total Depth: 30' bgl
Ground Water: Saturated @ 20' bgl
Elev., TOC (ft. msl): 6928.72
Elev., PAD (ft. msl): 6926.07
Elev., GL (ft. msl): 6924.62
Site Coordinates:
N 1633853.19 **E** 2545468.48

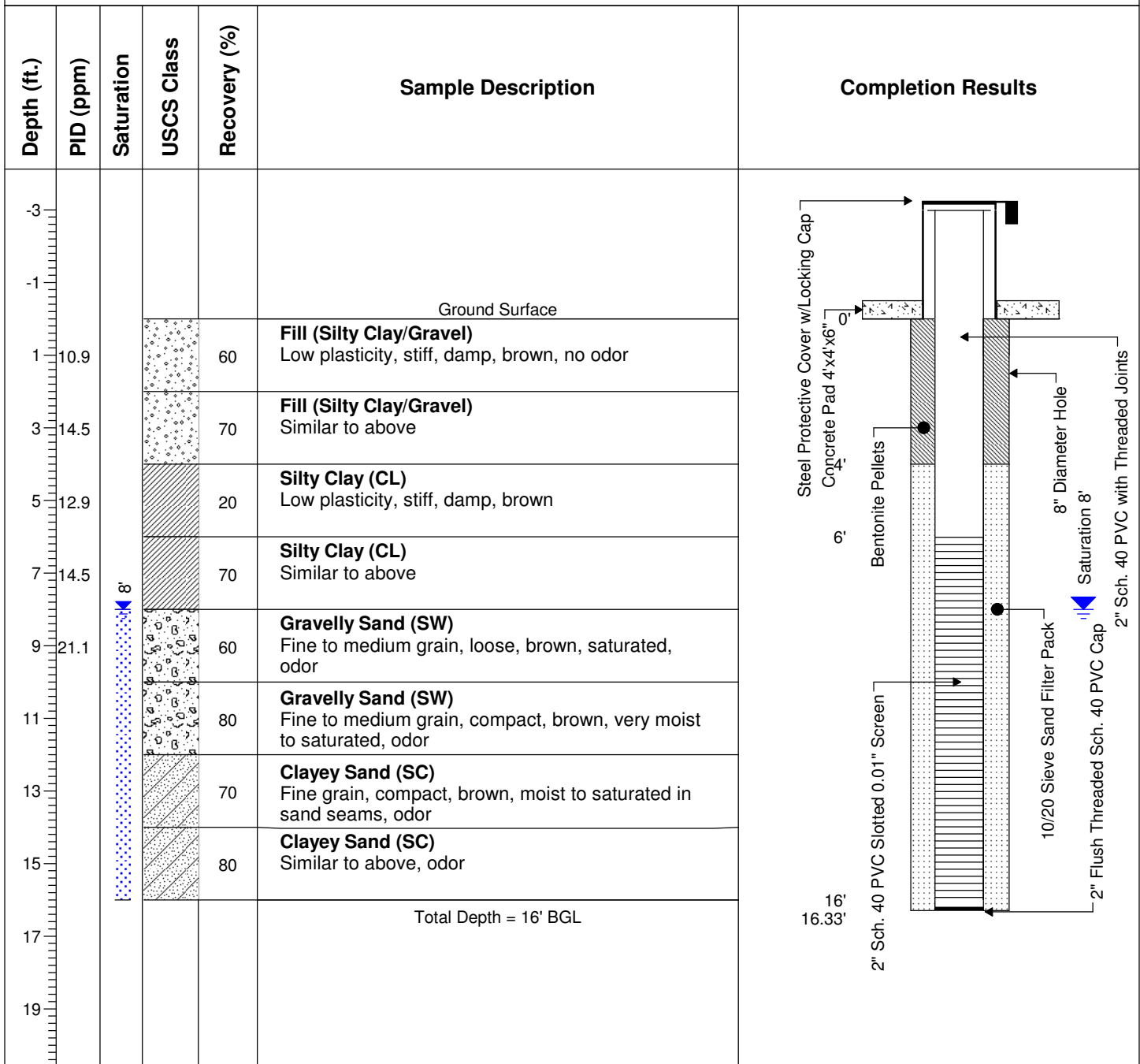
Well No.: MKTF-24
Start Date: 10/29/2013 13:15
Finish Date: 10/29/2013 16:15

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
17	16.8			70	Silty Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	<p>16'</p> <p>18'</p> <p>20' Saturation</p> <p>2" Sch. 40 PVC Slotted 0.01" Screen</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Flush Threaded Sch. 40 PVC Cap</p> <p>Cave In</p> <p>28'</p> <p>28.33'</p> <p>30'</p>
19	33.7			90	Sandy Clay (CL) Low plasticity, soft, damp, brown, no odor	
21	40.8			90	Sandy Clay/Clayey Sand (CL/SC) Fine grain, compact to soft, moist to saturated, brown, no odor	
23				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, no odor	
25				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, no odor	
27				90	Sandy Clay/Clayey Sand (CL/SC) Similar to above, moist to saturated, greenish gray sand at base	
29				90	Silt/Siltstone (ML) Low plasticity, very dense, dry, crumbly, brown/reddish brown, no odor	
31					Total Depth = 30' BGL	
33						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.372' W 108°25.840'; Boring ID - SB28

Total Depth: 16' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6916.19
Elev., PAD (ft. msl): 6913.35
Elev., GL (ft. msl): 6911.79
Site Coordinates:
N 1634015.86 **E** 2545275.68

Well No.: MKTF-25
Start Date: 10/30/2013 14:45
Finish Date: 10/30/2013 16:30

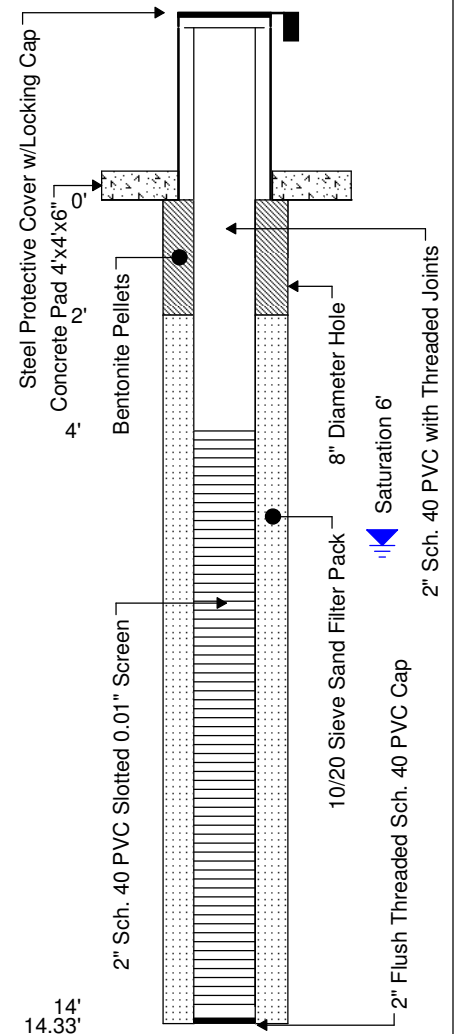


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.373' W 108°25.796'; Boring ID - SB29

Total Depth: 14' bgl
Ground Water: Saturated @ 6' bgl
Elev., TOC (ft. msl): 6915.31
Elev., PAD (ft. msl): 6912.55
Elev., GL (ft. msl): 6911.35
Site Coordinates:
N 1634033.63 **E** 2545492.39

Well No.: MKTF-26
Start Date: 10/30/2013 10:40
Finish Date: 10/30/2013 12:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	17.5			80	Silty Clay (CL) Low plasticity, soft, damp, brown, no odor, trace small gravel	
3	9.4			60	Silty Clay (CL) Similar to above	
5	4.8			60	Silty Clay (CL) Similar to above	
7	34.8	6		90	Sandy Clay/Clayey Sand (SC/CL) Very fine grain, compact/soft, brown, moist, faint odor, saturated at base	
9				70	Sandy Clay (SC) Low plasticity, stiff, damp, brown, no odor	
11				60	Silt/Siltstone (ML) Low plasticity, very dense, dry, reddish brown, very fine grain sand in fissures, no odor	
13				60	Silt/Siltstone (ML) Similar to above	
15					Total Depth = 14' BGL	

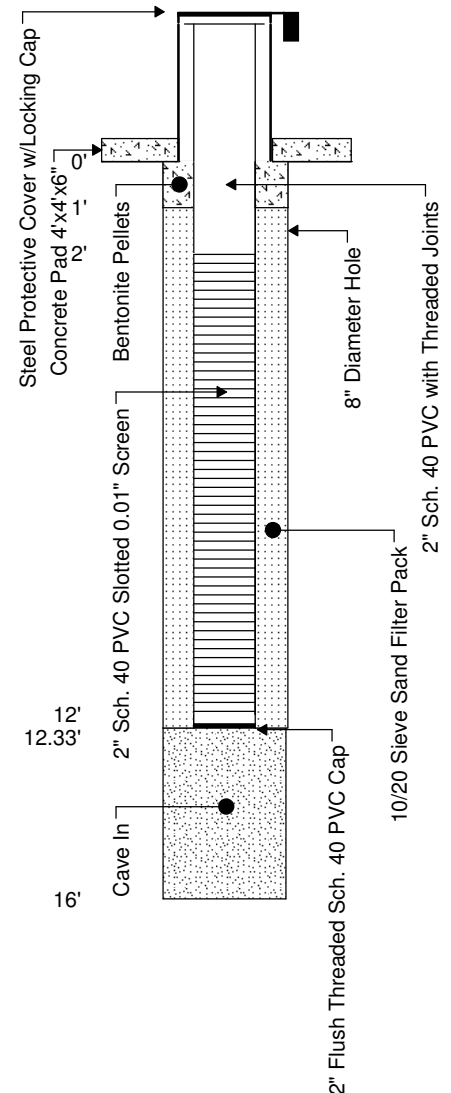


Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01809
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: Split Spoon
Comments: N 35°29.387' W 108°25.771'; Boring ID - SB30

Total Depth: 16' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): 6917.90
Elev., PAD (ft. msl): 6915.36
Elev., GL (ft. msl): 6914.18
Site Coordinates:
N 1634115.56 **E** 2545620.98

Well No.: MKTF-27
Start Date: 10/30/2013 09:00
Finish Date: 10/30/2013 10:20

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	3.3			90	Silty Clay (CL) Low plasticity, firm, damp, brown, occasional gravel	
3	4.1			80	Silty Clay (CL) Similar to above	
5	2.4			90	Silty Clay (CL) Similar to above	
7	4.1			90	Silty Clay (CL) Low to moderate plasticity, firm to soft, damp, brown, no odor, calcareous organics present	
9	3.3			80	Silt/Siltstone (ML) Low plasticity, very dense, dry, reddish brown with greenish gray very fine grain sand in fissures, no odor	
11	3.7			80	Silt/Siltstone (ML) Similar to above	
13	4.5			80	Silt/Siltstone (ML) Similar to above	
15	3.9			80	Silt/Siltstone (ML) Similar to above	
17					Total Depth = 16' BGL	
19						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.412' W 108°25.763', Air Temp: 48°F

Total Depth: 30' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): 6921.52
Elev., PAD (ft. msl): 6918.67
Elev., GL (ft. msl): 6917.51
Site Coordinates:
N 1634263.44 **E** 2545650.04

Well No.: MKTF-28
Start Date: 4/2/2014 11:30
Finish Date: 4/2/2014 14:25

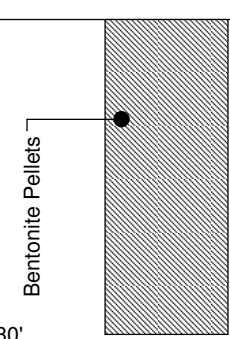
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	2.6			90	Fill (Silty Clay) Low plasticity, soft, damp, brown, no odor, sandy at base, moist	<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>
3	5.0					
5	3.6				Silty Clay (CL) Similar to above, damp to moist at 7.5' bgl	
7	7.6			60		
9	8.2					
11	8.1			60	Silty Clay (CL) Low plasticity, stiff, damp to dry, crumbly, brown, no odor	<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>
13	7.5					
15	9.1				Silty Clay (CL) Similar to above	
17	5.5			60		
19	7.8					
21	3.5			60	Silty Clay (CL) Similar to above	<p>Steel Protective Cover w/Locking Cap Concrete Pad - 4'x4'x6" Bentonite Pellets 2" Sch. 40 PVC Slotted 0.01" Screen 10/20 Sieve Sand Filter Pack 8" Diameter Hole 2" Sch. 40 PVC with Threaded Joints 2" Flush Threaded Sch. 40 PVC Cap Bentonite Pellets</p>

WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.412' W 108°25.763', Air Temp: 48°F

Total Depth: 30' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): 6921.52
Elev., PAD (ft. msl): 6918.67
Elev., GL (ft. msl): 6917.51
Site Coordinates:
N 1634263.44 **E** 2545650.04

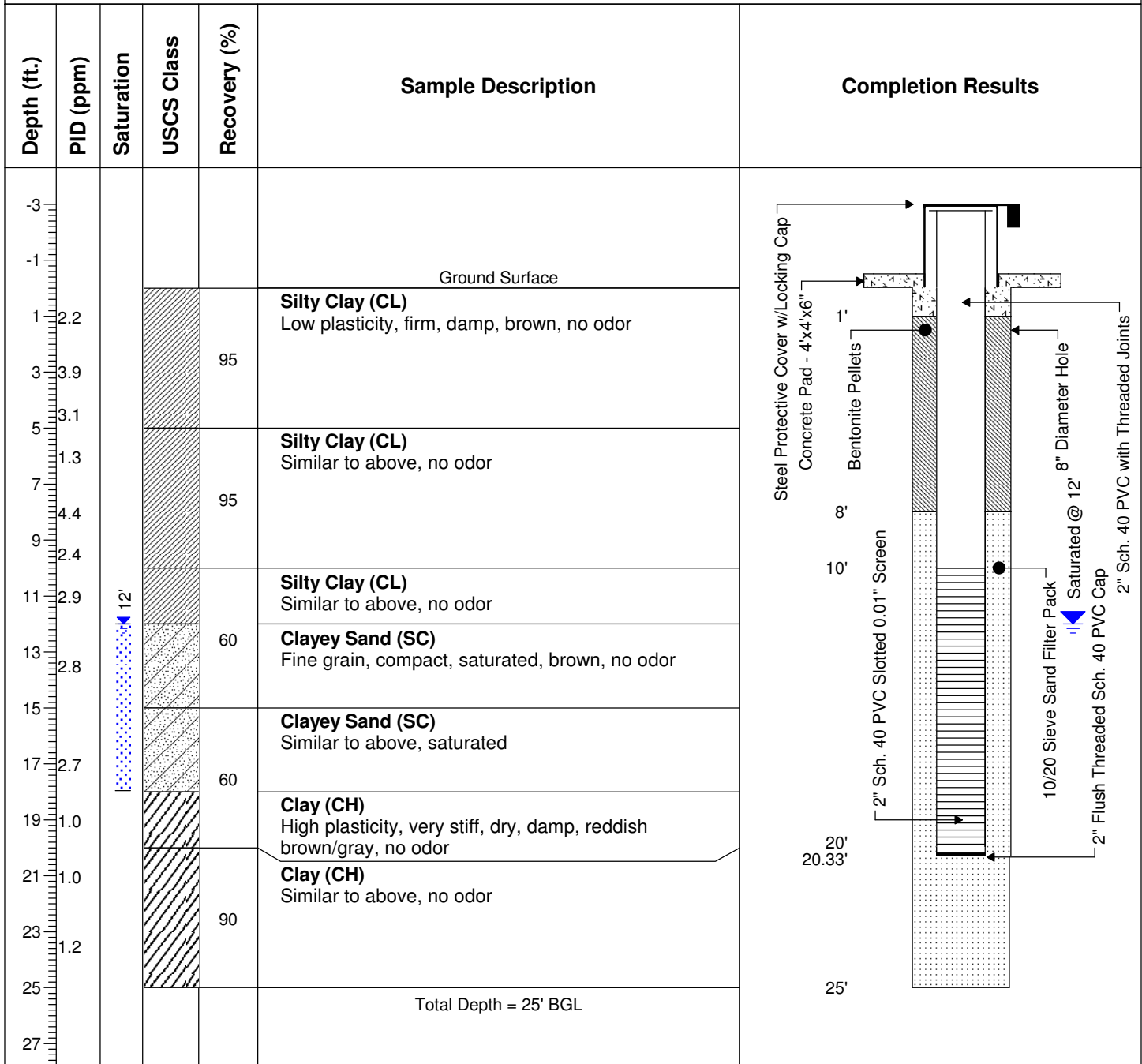
Well No.: MKTF-28
Start Date: 4/2/2014 11:30
Finish Date: 4/2/2014 14:25

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
24	4.3				Clay (CH) High plasticity, very stiff, reddish brown and gray, no odor, crumbly	
26	4.1			60	Clay (CH) Similar to above	
28	3.3					
30					Total Depth = 30' BGL	
32						
34						
36						
38						
40						
42						
44						
46						
48						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.406' W 108°25.846', Air Temp: 41 °F

Total Depth: 25' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6901.62
Elev., PAD (ft. msl): 6898.83
Elev., GL (ft. msl): 6897.67
Site Coordinates:
N 1634249.76 **E** 2545258.34

Well No.: MKTF-29
Start Date: 4/2/2014 08:30
Finish Date: 4/2/2014 11:15





WELL INSTALLATION

Well No.: MKTF-30

Start Date: 4/1/2014 13:00

Finish Date: 4/1/2014 15:00

Client: Western Refining Southwest, Inc.

Total Depth: 25' bgl

Site: Gallup Refinery - Seep West of Tank 102

Ground Water: Saturated @ 12' bgl

Job No.: UEC01867

Elev., TOC (ft. msl): 6900.80

Geologist: Tracy Payne

Elev., PAD (ft. msl): 6898.10

Driller: Enviro-Drill, Inc.

Elev., GL (ft. msl): 6896.68

Drilling Rig: CME 75

Site Coordinates:

Drilling Method: Hollow Stem Augers

N 1634225.67 **E** 2544937.91

Sampling Method: 5-Foot Split Spoon

Comments: N 35°29.405' W 108°25.910', Air Temp: 58°F

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
-3						
-1					Ground Surface	
1	12.3			30	Fill (Silty Clay) Low plasticity, firm, dry, brown, no odor	
3						
5	12.3			90	Fill (Silty Clay) Similar to above, dry, crumbly, no odor, sand at base	
7						
9	13.2					
11	17.1					
13	18.5	12'		80	Silty Sand (SM) Fine grain, compact to loose, moist to saturated at 12' bgl, brown, no odor, clayey at 14' bgl	
15	17.2					
17	13.1			90	Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	
19	13.8				Clayey Sand (SC) Very fine grain, compact, saturated, brown, no odor	
21	9.1				Sandy Clay (CL) Low plasticity, firm, damp, brown, no odor	
23	6.2			95	Clay (CH) Moderate to high plasticity, stiff, damp to dry, crumbly, brown/gray, no odor	
25					Total Depth = 25' BGL	
27						

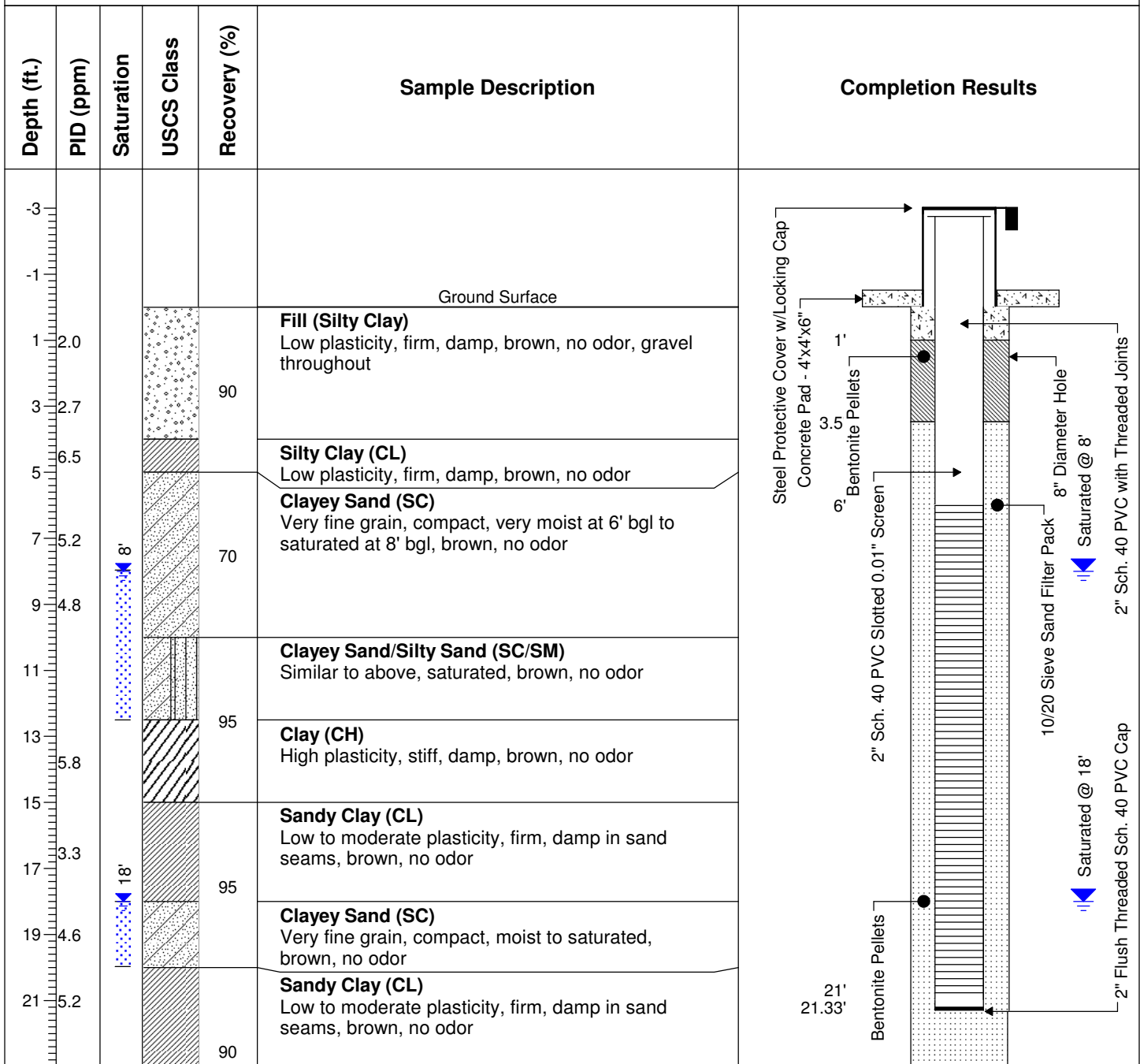
20'
20.33'

25'

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.350' W 108°25.909', Air Temp: 48°F; Boring ID - SB20

Total Depth: 30' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6906.87
Elev., PAD (ft. msl): 6904.26
Elev., GL (ft. msl): 6903.11
Site Coordinates:
N 1633898.83 **E** 2544938.99

Well No.: MKTF-31
Start Date: 4/1/2014 08:20
Finish Date: 4/1/2014 12:00



WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.350' W 108°25.909', Air Temp: 48°F; Boring ID - SB20

Total Depth: 30' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): 6906.87
Elev., PAD (ft. msl): 6904.26
Elev., GL (ft. msl): 6903.11
Site Coordinates:
N 1633898.83 **E** 2544938.99

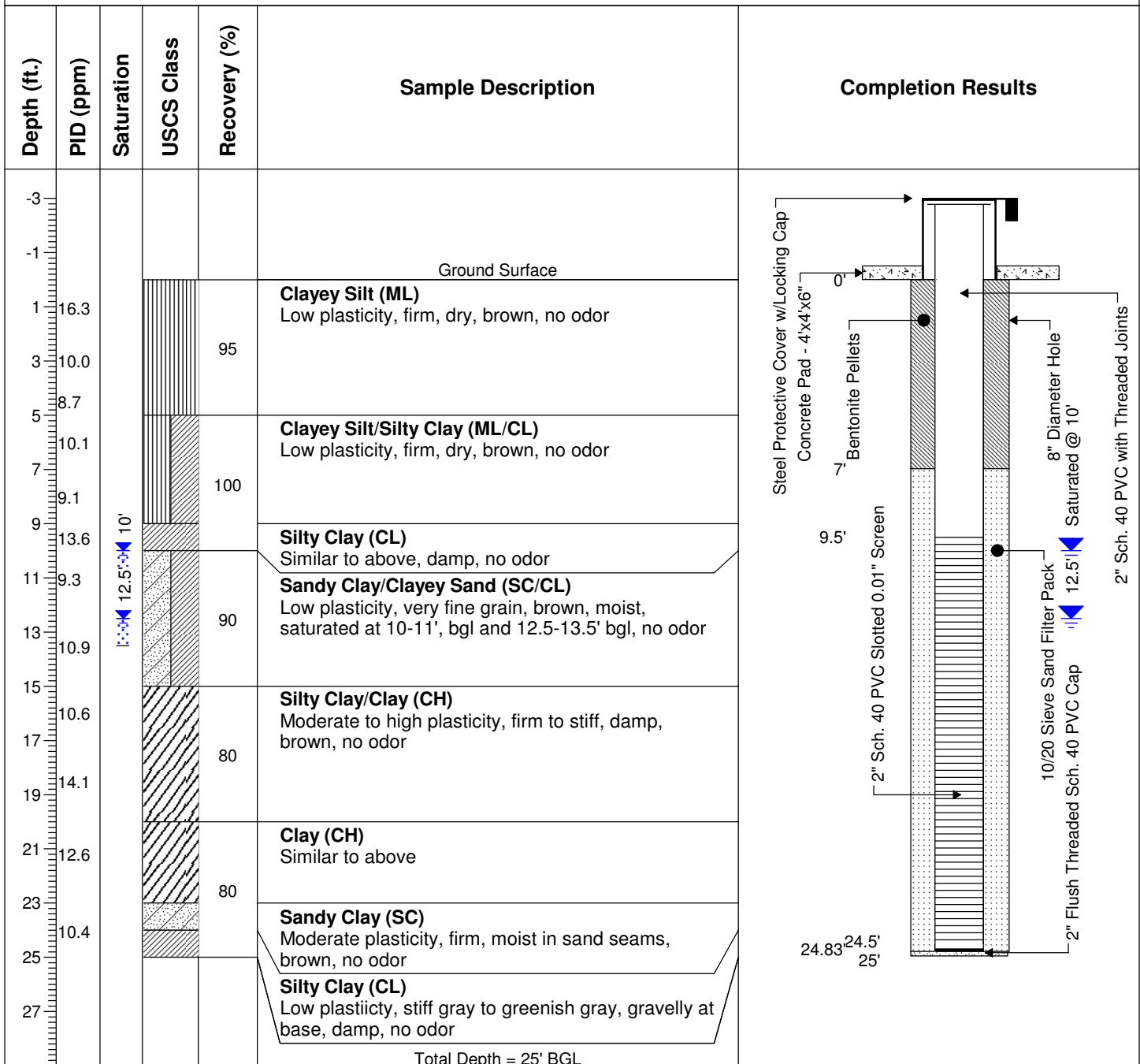
Well No.: MKTF-31
Start Date: 4/1/2014 08:20
Finish Date: 4/1/2014 12:00

Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
24	7.2					
26	2.5			90	Clay (CH) Moderate plasticity, firm, dry to damp, crumbly, reddish brown, no odor	
28	2.3					
30					Total Depth = 30' BGL	30' 10/20 Sieve Sand Filter Pack
32						
34						
36						
38						
40						
42						
44						
46						
48						

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.275' W 108°25.928', Air Temp: 58°F

Total Depth: 25' bgl
Ground Water: Saturated @ 10' bgl
Elev., TOC (ft. msl): 6911.11
Elev., PAD (ft. msl): 6908.44
Elev., GL (ft. msl): 6907.16
Site Coordinates:
N 1633443.56 **E** 2544840.32

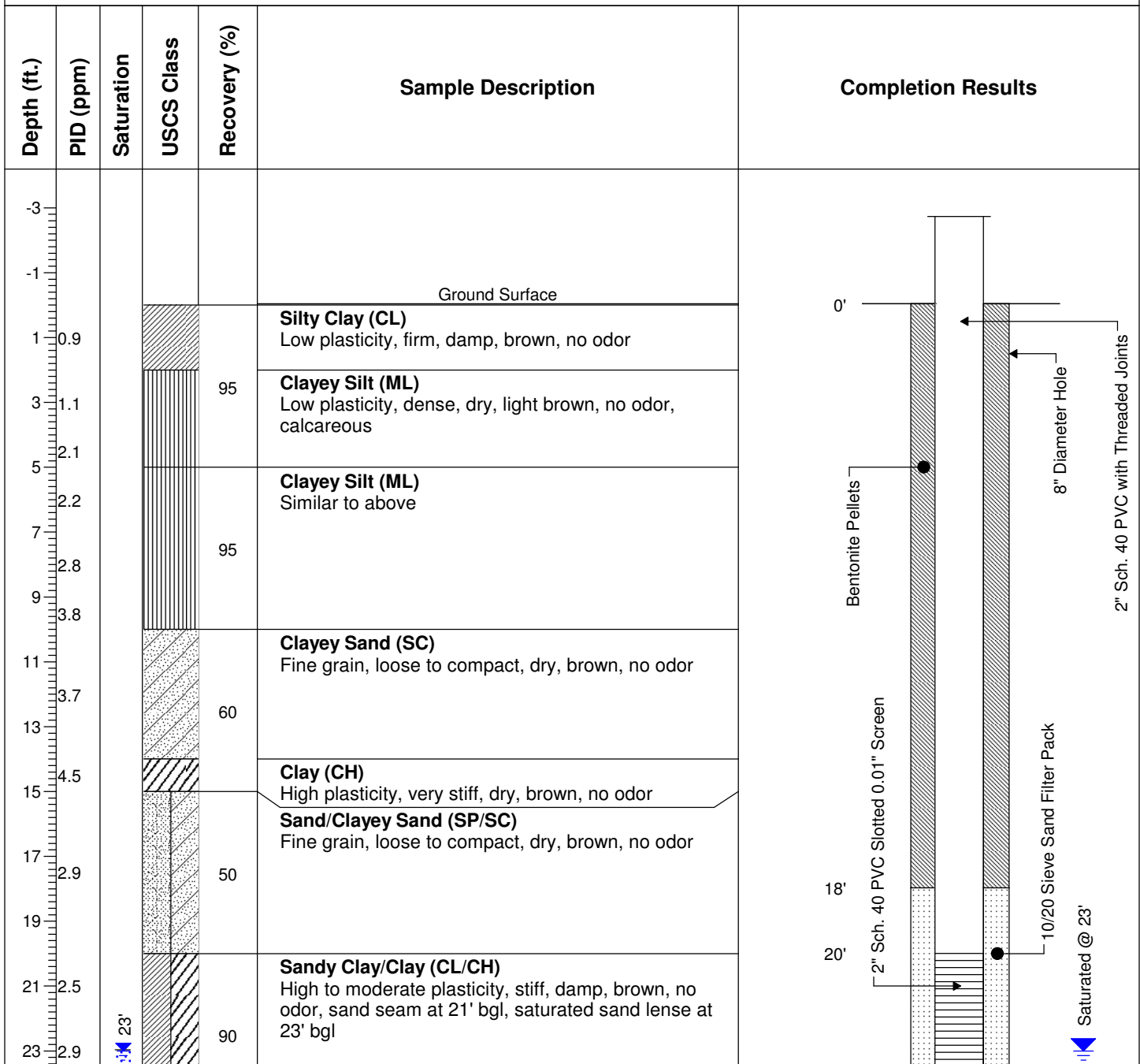
Well No.: MKTF-32
Start Date: 3/31/2014 14:40
Finish Date: 3/31/2014 16:30



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.246' W 108°25.830', Air Temp: 30°F

Total Depth: 35' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6939.75
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): 6936.59
Site Coordinates:
N 1633261.99 **E** 2545318.27

Well No.: MKTF-33
Start Date: 4/3/2014 08:40
Finish Date: 4/3/2014 12:00



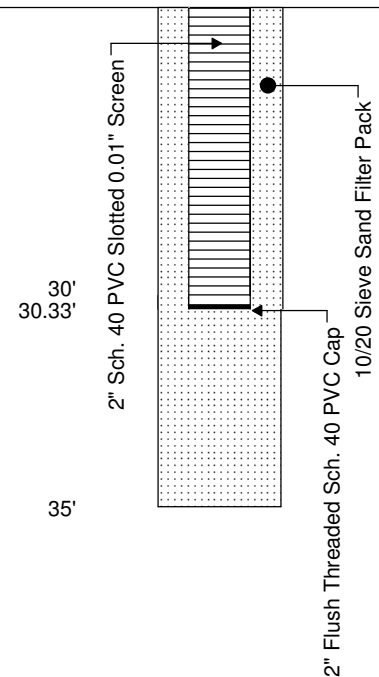
WELL INSTALLATION

Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.246' W 108°25.830', Air Temp: 30°F

Total Depth: 35' bgl
Ground Water: Saturated @ 23' bgl
Elev., TOC (ft. msl): 6939.75
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): 6936.59
Site Coordinates:
N 1633261.99 **E** 2545318.27

Well No.: MKTF-33
Start Date: 4/3/2014 08:40
Finish Date: 4/3/2014 12:00

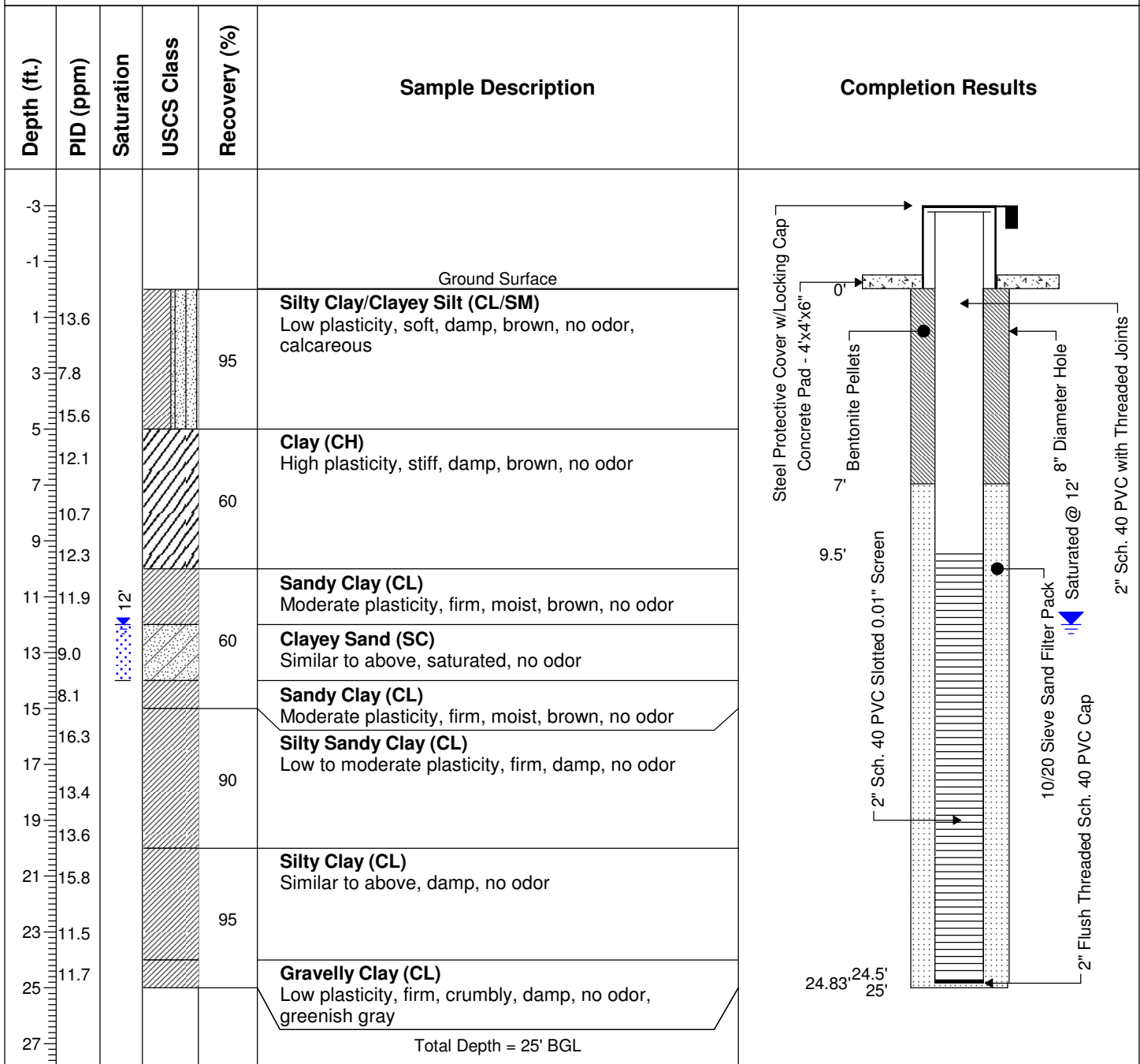
Depth (ft.)	PID (ppm)	Saturation	USCS Class	Recovery (%)	Sample Description	Completion Results
25	3.4					
27	1.6			90	Clayey Sand/Sandy Clay (SC/CL) Moderate plasticity, firm, moist to saturated throughout interval, brown, interbedded sand/clay, no odor	
29	2.5					
31				95	Clay (CH) High plasticity, very stiff, brown, damp, no odor	
33						
35					Total Depth = 35' BGL	
37						
39						
41						
43						
45						
47						
49						



Client: Western Refining Southwest, Inc.
Site: Gallup Refinery - Seep West of Tank 102
Job No.: UEC01867
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow Stem Augers
Sampling Method: 5-Foot Split Spoon
Comments: N 35°29.224' W 108°25.757', Air Temp: 49-51 °F

Total Depth: 25' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): 6945.35
Elev., PAD (ft. msl): 6942.42
Elev., GL (ft. msl): 6943.52
Site Coordinates:
N 1633118.42 **E** 2545681.30

Well No.: MKTF-34
Start Date: 3/31/2014 11:00
Finish Date: 3/31/2014 13:45



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 18'
Ground Water : 10'
Start Date : 11/19/2014
Finish Date : 11/19/2014

MKTF-35

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6951.65
Elev., PAD (ft. msl) : 6951.90
Elev., GL (ft. msl) : 6951.25
Site Coordinates :
N : 1633204.45
E : 2546011.60

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-35
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	Flush Mount Completion 2'x2'x6"
1	4.5			CL	100		SILTY CLAY, low, very stiff, damp, brown,	
2								Bentonite Pellets
3	46.6			CL	20		SILTY CLAY, SIMILAR TO ABOVE (STA), odor, gravel present,	2" Sch 40 PVC Casing Threaded Joints
4								
5	95			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, damp, reddish brown, odor, very coarse grain sand, 1/4" to 1" gravel, odor,	
6								
7	64			CL	80		SILTY CLAY, low, firm, damp, reddish brown, odor, occasional gravel,	
8								
9	78			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO 4-6', damp to moist, odor,	
10		▼						10/20 Sieve Sand Filter Pack
11	1790			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO ABOVE (STA), saturated, hydrocarbon (hc) odor,	2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
12				CL	90		SILTY CLAY, low, stiff, damp, reddish brown, light grey clay @ base, hc odor,	
13	2400			CL/SC	90		SILTY CLAY/SANDY CLAY, low, firm to stiff, damp, grey, hc odor, sand/silt varies across interval,	
14								
15	745			CL	50		SANDY GRAVELLY CLAY, STA, damp, grey, brown @ base, hc odor,	
16								
17	37			CL	90		CLAY, mod, very stiff, damp, brown and grey, faint odor.	2" Flush Threaded Sch 40 PVC Cap
18								
19								

1010 Travis Street
Houston, Texas 77002
713-955-1230

DiSorbo Consulting, LLC

8501 N. MoPac Expy, Suite 300
Austin, Texas 78759
512-693-4190



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 16'
Ground Water : 10'
Start Date : 11/19/2014
Finish Date : 11/19/2014

MKTF-36

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6950.12
Elev., PAD (ft. msl) : 6950.67
Elev., GL (ft. msl) : 6949.87
Site Coordinates :
N : 1633349.47
E : 2545982.58

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-36
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	Flush Mount Completion 2'x2'x6"
1	812			CL	90		SANDY CLAY, low, stiff, dry, tan, no odor, gravel throughout,	Bentonite Pellets
2								
3	276			CL	60		SILTY CLAY, low, very stiff, dry, brown, hydrocarbon (hc) odor,	2" Sch 40 PVC Casing Threaded Joints
4								
5	1700			CL	60		SILTY CLAY, SIMILAR TO ABOVE (STA), trace sand/gravel, hc odor,	
6								
7	2411			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, firm, damp, tan, very coarse sand, 1/4" to 1" gravel, hc odor, moist to very moist in seams,	
8								
9	2278			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, moist, fluid in top of sampling spoon, strong hc odor, trace phase separated hydrocarbon (psh),	
10		▼					SILTY CLAY/SAND/GRAVEL, STA, saturated, psh,	10/20 Sieve Sand Filter Pack 2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
11	1879			CL/SP	90			
12				CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, saturated, psh,	
13	405			CL	90		SILTY CLAY, low, stiff, damp, brown, hc odor,	
14							SILTY CLAY, STA, damp, hc odor.	
15	450			CL	90			2" Flush Threaded Sch 40 PVC Cap
16								

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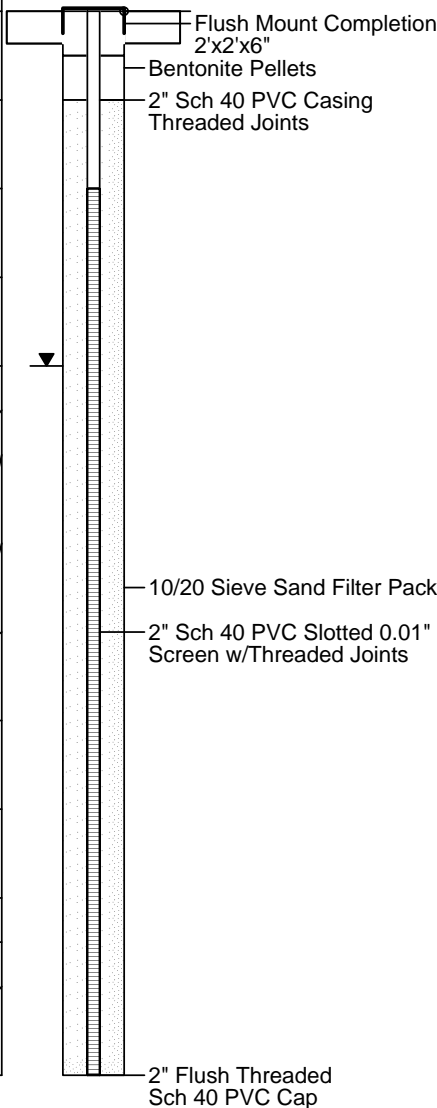
Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 24'
Ground Water : 8'
Start Date : 11/18/2014
Finish Date : 11/18/2014

MKTF-37

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6958.87
Elev., PAD (ft. msl) : 6959.07
Elev., GL (ft. msl) : 6958.62
Site Coordinates :
N : 1633291.89
E : 2546216.67

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-37
							DESCRIPTION	
-2								
-1								
0								
1	69				40		ASPHALT/GRAVEL BASE, CLAY, very stiff, brown, damp, faint odor,	 <p>Flush Mount Completion 2'x2'x6"</p> <p>Bentonite Pellets</p> <p>2" Sch 40 PVC Casing Threaded Joints</p> <p>10/20 Sieve Sand Filter Pack</p> <p>2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints</p> <p>2" Flush Threaded Sch 40 PVC Cap</p>
2							SILTY CLAY, low, very stiff, brown, damp, odor, gravel present,	
3	367		CL		50		SILTY CLAY/SAND/GRAVELLY, low to firm, damp, brown with sand/gravel, odor,	
4							SILTY CLAY/SAND/GRAVELLY, SIMILAR TO ABOVE (STA), odor,	
5	355		CL/SP		60		SILTY CLAY, low, soft, moist to very moist, brown, strong odor,	
6							SANDY GRAVEL/GRAVELLY SAND, coarse to very coarse grain, compact, very moist, odor, tan,	
7	1790		CL/SP		80		SILTY CLAY/SAND/GRAVEL, low to firm, damp, brown with coarse sand & gravel, odor,	
8			CL		90		SANDY CLAY, low, soft, damp, odor, light grey, gravel @ base,	
9	2140		SW/GW		90		SANDY CLAY, low, very stiff, damp, odor, light grey,	
10							SANDY CLAY, STA,	
11	404		CL/SP		90		SANDY CLAY, STA,	
12							SHAPE, CLAYEY, light purple, damp, very stiff, odor,	
13	454		CL		20		SHAPE, STA,	
14								
15	660		CL		50			
16								
17	340		CL		30			
18								
19	344		CL		30			
20								
21	421		CL		60			
22			SH		60			
23	375		SH		30			
24								
25								

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 20.25'
Ground Water : 8'
Start Date : 11/20/2014
Finish Date : 11/20/2014

MKTF-38

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6954.89
Elev., PAD (ft. msl) : 6955.17
Elev., GL (ft. msl) : 6954.54
Site Coordinates :
N : 1633451.01
E : 2546222.09

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	Completion Results MKTF-38
							DESCRIPTION	
-2								
-1								
0					100		ASPHALT/BASE,	
1	217			CL/SP	90		SILTY CLAY/SAND/GRAVEL, low, firm, damp, brown, coarse grain sand, 1/4" to 1" gravel, odor,	Flush Mount Completion 2"x2"x6"
2								Bentonite Pellets
3	70			CL/SP	90		SILTY CLAY/SAND/GRAVEL, SIMILAR TO ABOVE (STA), odor,	2" Sch 40 PVC Casing Threaded Joints
4								
5	42			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, odor,	
6								
7	20			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, odor,	
8		▼						▼
9	9			CL/SP	90		SILTY CLAY/SAND/GRAVEL, STA, decrease in clay content, very moist to saturated, odor,	
10								
11	7			GW	90		SANDY GRAVEL, compact, brown, saturated, faint odor, very coarse grain sand, 1/4" to 1.5" gravel,	
12				CL	90			
				GW	90		SANDY CLAY, low, firm to soft, moist, brown,	
13	8			GW	10		SANDY GRAVEL, STA (10-11), saturated,	10/20 Sieve Sand Filter Pack
14							SANDY GRAVEL, STA, saturated,	2" Sch 40 PVC Slotted 0.01" Screen w/Threaded Joints
15	6			GW	10		SANDY GRAVEL, STA, saturated,	
16								
17	4			CL	50		SANDY CLAY, low, firm, damp to moist, greyish brown, faint odor,	
18								
19	5			CL	60		SANDY CLAY, STA,	
20								2" Flush Threaded Sch 40 PVC Cap
21								

Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 16'
Ground Water : 12'
Start Date : 11/14/2014
Finish Date : 11/14/2014

MKTF-39

(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6953.75
Elev., PAD (ft. msl) : 6953.97
Elev., GL (ft. msl) : 6953.12
Site Coordinates :
N : 1633729.23
E : 2546265.99

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results MKTF-39
-2									
-1									
0									
1	2.1			ML	100			GRAVEL/CLAYEY SILT, FILL, brown, damp, faint odor,	
2								GRAVEL/SILTY CLAY, FILL, mod, stiff, damp, brown, no odor,	
3	29.4			CL	100			SANDY SILTY CLAY, FILL, low, soft, damp, brown, pea sized gravel, no odor, damp,	
4									
5	6.5			CL	90			SILTY GRAVELLY SAND, FILL, loose, medium sand to 1.5" gravel, brown, no odor, damp,	
6									
7	4.5			SW	90			SANDY CLAY/CLAYEY SAND, coarse, compact, damp to moist, brown, hydrocarbon (hc) odor, gravelly,	
8									
9	400			CL/SC	90			SANDY CLAY/CLAYEY SAND, SIMILAR TO ABOVE (STA), moist/oily, hc odor, gravelly,	
10									
11	569			CL	90			SANDY GRAVEL, loose, brown, saturated, hc odor, very coarse sand to 3/4" gravel,	
12	-			GP	90			SILTY CLAY, low, very stiff, dry to damp, grey, faint odor @ base,	
13	51			CL	90			SILTY CLAY, STA.	
14									
15	18			CL	90				
16									

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 22'
Ground Water : 10'
Start Date : 11/13/2014
Finish Date : 11/13/2014

MKTF-40

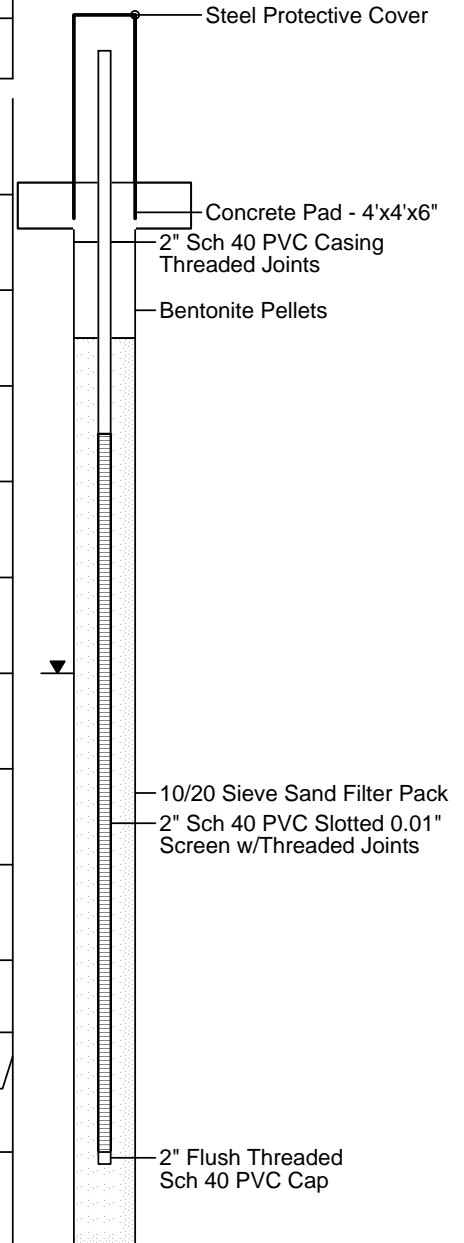
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6894.33
Elev., PAD (ft. msl) : 6891.35
Elev., GL (ft. msl) : 6890.48
Site Coordinates :
N : 1634085.50
E : 2544637.81

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
-2							
-1							
0							
1	0.8			CL	100		CLAY, mod, stiff, damp, brown, no odor, gravel,
2							
3	0.1			CL	90		CLAY, SIMILAR TO ABOVE (STA), gravel,
4							
5	0.7			CL	80		CLAY, STA,
6							
7	1.8			CL	90		SANDY CLAY, low, firm to soft, damp, brown, no odor, moist 7-8' ,
8							
9	2.0			CL	70		SANDY CLAY, STA, damp to moist,
10							
11	0.6			CL/SC	90		SANDY CLAY/CLAYEY SAND, STA, moist to saturated in clayey sand seams, no odor,
12							
13	1.5			CL	20		SANDY SILTY CLAY, low, stiff, damp, brown, no odor, moist to saturated in sand seams,
14							
15	2.2			CL/SC	80		SANDY CLAY/CLAYEY SAND, low, firm to soft, moist to saturated in clayey sand seams,
16							
17	2.2			CL/SC	80		SANDY CLAY/CLAYEY SAND, STA, moist to saturated,
18				CL	90		SILTY CLAY, low, very stiff, damp, reddish brown and grey, no odor,
19	2.5			CL	80		SILTY CLAY, STA,
20							
21	2.6			CL	50		SILTY CLAY, STA,
22							
23							

Completion Results

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 37.25'
Ground Water : 34'
Start Date : 11/13/2014
Finish Date : 11/14/2014

MKTF-41

(Sheet 1 of 2)

Elev., TOC (ft.msl) : 6893.64
Elev., PAD (ft. msl) : 6891.11
Elev., GL (ft. msl) : 6889.80
Site Coordinates :
N : 1633499.80
E : 2544567.57

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	Saturation ▼ Saturation	DESCRIPTION	Completion Results
-2									
-1									
0									
1	2.6			CL	80			SANDY SILTY CLAY, low, stiff, dry, brown, no odor, fine grained sand, occasional gravel,	
2									
3	2.3			CL	70			SANDY SILTY CLAY, SIMILAR TO ABOVE (STA), no odor,	
4									
5	1.2			CL	40			SANDY SILTY CLAY, STA, no odor,	
6									
7	2.4			CL/ML	50			SILTY CLAY/CLAYEY SILT, low, firm, dry, brown, no odor,	
8									
9	3.9			CL	60			SANDY CLAY, low, very stiff, dry, brown, no odor,	
10									
11	4.8			CL	30			SANDY CLAY, STA, damp,	
12									
13	3.5			CL	40			SANDY CLAY, STA,	
14									
15	1.2			CL	10			SANDY CLAY, STA,	
16									
17	3.9			CL	50			SILTY CLAY, low, very stiff, dry/damp, light reddish brown with grey @ base, no odor,	
18									
19	4.0			CL				SILTY CLAY, STA, reddish brown and light grey,	

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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 37.25'
Ground Water : 34'
Start Date : 11/13/2014
Finish Date : 11/14/2014

MKTF-41

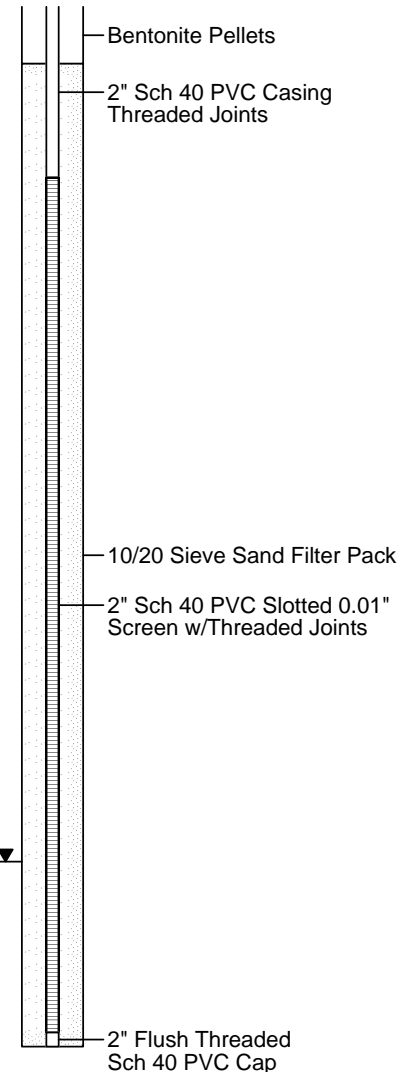
(Sheet 2 of 2)

Elev., TOC (ft.msl) : 6893.64
Elev., PAD (ft. msl) : 6891.11
Elev., GL (ft. msl) : 6889.80
Site Coordinates :
N : 1633499.80
E : 2544567.57

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
19	4.0			CL	80		
20							SILTY CLAY, STA, light reddish brown,
21	3.9			CL	50		
22							SILTY CLAY, STA, light reddish brown and trace grey,
23	3.6			CL	40		
24							SILTY CLAY, STA, light reddish brown,
25	3.3			CL	50		
26							SILTY CLAY, STA,
27	2.1			CL	10		
28							SILTY CLAY, STA,
29	2.8			CL	20		
30							SILTY CLAY, STA, moist @ top of sample,
31	2.6			CL	40		
32							SILTY CLAY, STA, calcareous,
33	3.1			CL	50		
34		▼					SILTY CLAY, STA, gravelly, moist to saturated, no odor, shale @ base,
35	2.9			CL	50		
36							SHALE, dark grey, dense to very dense,
37	-			SH	10		
38							
39							
40							

Completion Results

MKTF-41



Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 30.25'
Ground Water :
Start Date : 11/12/2014
Finish Date : 11/12/2014

MKTF-42

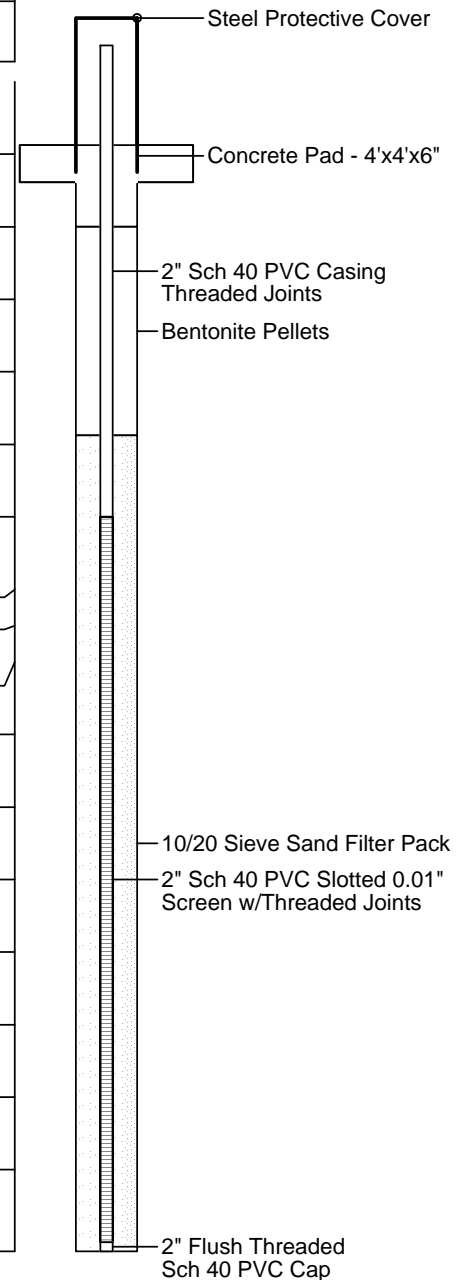
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6892.95
Elev., PAD (ft. msl) : 6890.42
Elev., GL (ft. msl) : 6888.75
Site Coordinates :
N : 1633078.09
E : 2544678.55

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
							Water Level Depth to water - 18.79 fbtoc 11-18-14 (not known to be static)
-2							
-1							
0							
1	1.7			CL	100		SILTY CLAY, low, firm, dry, light brown, no odor,
2							
3	2.8			CL	90		SILTY CLAY, low, very stiff, dry, light brown, calcareous, no odor, crumbly,
4							
5	3.8			CL	60		SILTY CLAY, SIMILAR TO ABOVE (STA),
6							
7	2.4			CL	60		SILTY CLAY, STA,
8							
9	4.1			CL	30		SILTY CLAY, STA,
10							
11	2.8			CL	50		SANDY CLAY, low, stiff, dry, light reddish brown with medium grained sand and interbedded sandstone less than 1/2" thick,
12							
13	3.9			CL	80		SANDY CLAY, STA,
14				CL	80		SILTY CLAY, low, very stiff, damp/dry, light reddish brown, no odor, calcareous,
15	2.5			CL	60		SILTY CLAY, STA, increase in moisture,
16							
17	2.3			CL	50		SILTY CLAY, STA, trace sand, standstone seam @ 17.5', very dense,
18							
19	2.4			CL	80		SILTY CLAY, STA, odor, extremely calcareous (50%),
20							
21	1.5			CL	80		SILTY CLAY, STA, calcareous,
22							
23	2.5			CL	10		SILTY CLAY, low, stiff, damp, reddish brown, no odor,
24							
25	1.4			CL	60		SILTY CLAY, STA,
26							
27	1.5			CL	60		SILTY CLAY, STA, trace grey,
28							
29	1.2			CL	50		SILTY CLAY, STA, grey and reddish brown.
30							
31							

Completion Results

MKTF-42



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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 28'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/11/2014

MKTF-43

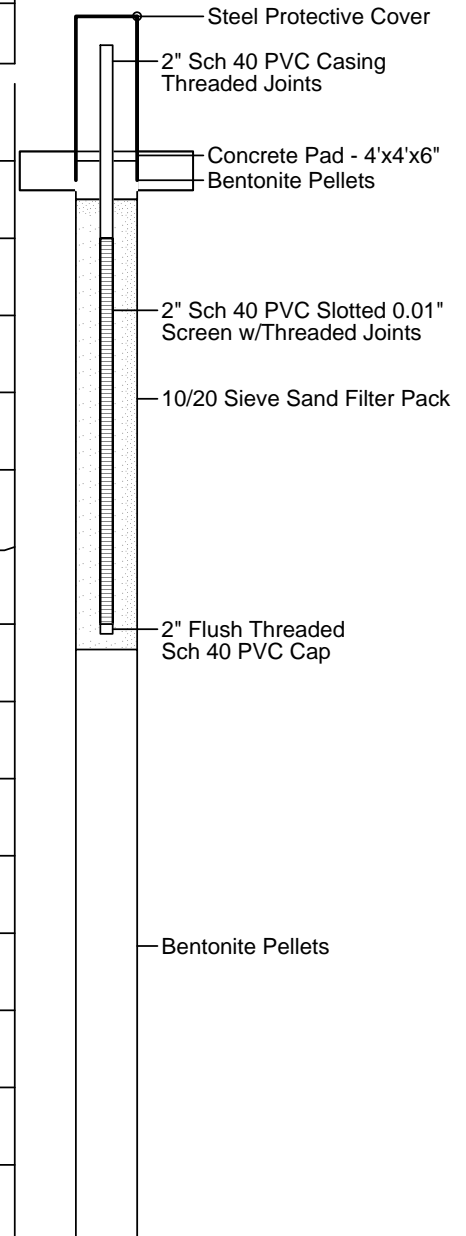
(Sheet 1 of 1)

Elev., TOC (ft.msl) : 6876.90
Elev., PAD (ft. msl) : 6874.12
Elev., GL (ft. msl) : 6873.22
Site Coordinates :
N : 1633490.97
E : 2544190.23

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Sample	DESCRIPTION
							Water Level Depth to water - 6.95 ftboc 11-18-14 (not known to be static)
-2							
-1							
0							
1	3.6			CH	100		CLAY, high, stiff, damp, brown, no odor,
2							
3	4.6			CH	50		CLAY, SIMILAR TO ABOVE (STA), moist in seams,
4							
5	4.2			CH	90		CLAY, STA, moist in seams,
6							
7	4.6			CH	90		CLAY, STA, reddish brown,
8							
9	4.0			CL	90		SILTY CLAY, low, soft, damp, reddish brown, crumbly, no odor, trace grey clay @ 9.5',
10							
11	3.3			CL	80		SILTY CLAY, STA, stiff,
12							
13	3.8			CL	60		SILTY CLAY, STA, very stiff,
14							
15	3.8			CL	80		SILTY CLAY, STA, very stiff, calcareous,
16							
17	2.9			CL	80		SILTY CLAY, STA,
18							
19	3.1			CL	50		SILTY CLAY, STA,
20							
21	3.1			CL	60		SILTY CLAY, STA,
22							
23	3.2			CL	10		SILTY CLAY, STA,
24							
25	3.3			CL	30		SILTY CLAY, STA, sandstone seam 24.50',
26							
27	3.2			CL	30		SILTY CLAY, STA.
28							
29							

Completion Results

MKTF-43



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Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 50'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/12/2014

MKTF-44

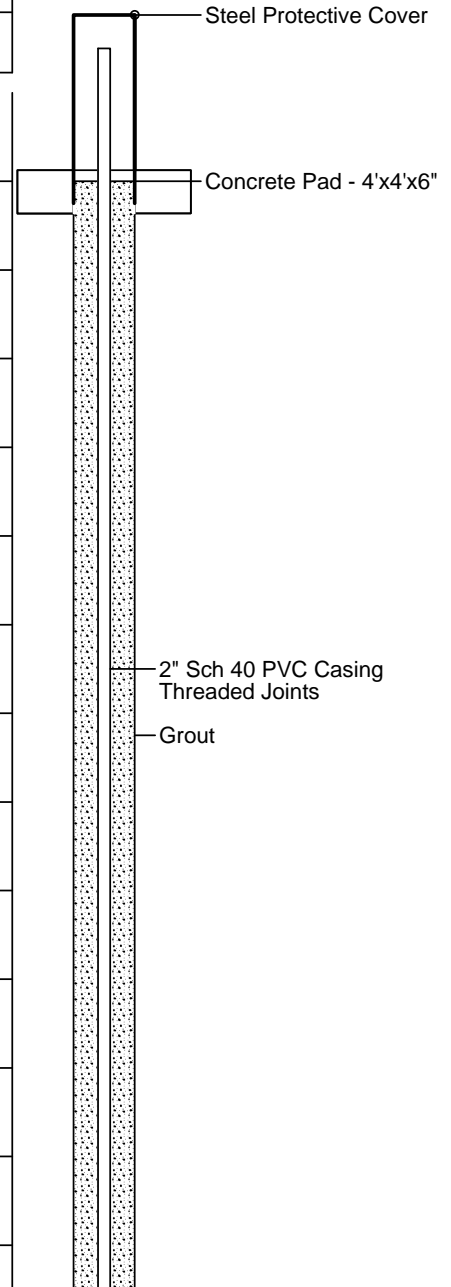
(Sheet 1 of 2)

Elev., TOC (ft.msl) : 6869.95
Elev., PAD (ft. msl) : 6867.41
Elev., GL (ft. msl) : 6866.06
Site Coordinates :
N : 1633681.48
E : 2542981.45

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Water Level Depth to water - 48.80 fbtoc 11-17-14 (not known to be static)
						DESCRIPTION
-2						
-1						
0						
1	6.3			CH	100	CLAY, high, very stiff, damp, brown, no odor,
2						
3	8.3			CH	80	CLAY, SIMILAR TO ABOVE (STA),
4						
5	8.2			CH	70	CLAY, STA,
6						
7	8.6			CH	90	CLAY, STA,
8						
9	8.2			CH	80	CLAY, STA,
10						
11	7.9			CH	90	CLAY, STA, trace silt,
12						
13	7.8			CH	90	CLAY, high, very stiff, damp, brown, no odor,
14						
15	6.5			CH	10	CLAY, STA,
16						
17	7.1			CH	80	CLAY, STA,
18						
19	7.6			CL	70	SANDY SILTY CLAY, low, stiff, damp, light brown, no odor, gravel @ base, soft/crumbly 19-19.5' with lesser amount of clay,
20						
21	5.5			CL	80	SILTY CLAY, STA with sand seams/sandstone fro 20.5-22, dry, crumbly,
22						
23	6.4			CL	80	SANDY SILTY CLAY, low, stiff, dry to damp, light brown, no odor,
24						
25	4.8			CL		GRAVELLY CLAY, STA, with gravel,

Completion Results

MKTF-44





Western Refining SW, Inc.
Gallup Refinery - Hydrocarbon Seep
Job No. WEST14003

Geologist : Tracy Payne
Driller : C. Ortiz
Drilling Rig : CME 75
Drilling Method : Hollow Stem Auger 7.5"
Sampling Method : Split Spoon 2" Dia, 2' Long
Comments :
Total Depth : 50'
Ground Water :
Start Date : 11/11/2014
Finish Date : 11/12/2014

MKTF-44

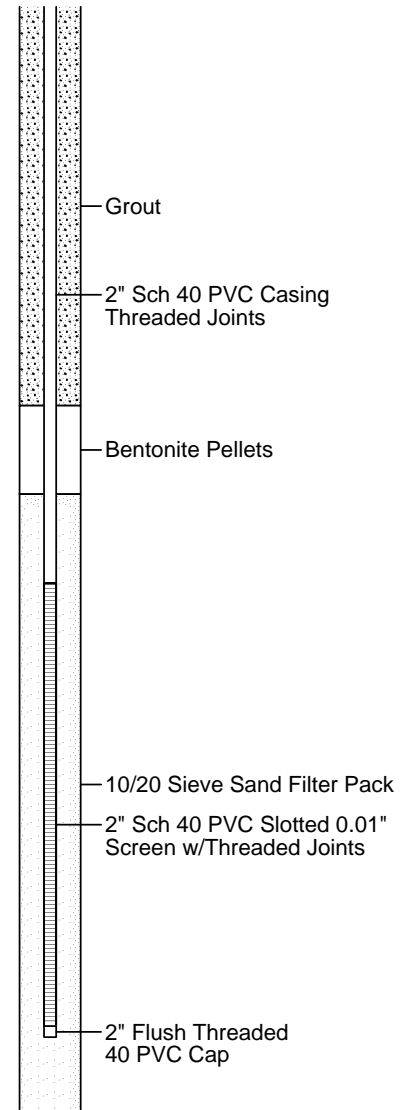
(Sheet 2 of 2)

Elev., TOC (ft.msl) : 6869.95
Elev., PAD (ft. msl) : 6867.41
Elev., GL (ft. msl) : 6866.06
Site Coordinates :
N : 1633681.48
E : 2542981.45

Depth (ft.)	PID (ppm)	Saturation	Lithology	USCS	Recovery (%)	Water Level
						DESCRIPTION
25	4.8			CL	70	
26						GRAVELLY CLAY, STA, very stiff,
27	3.8			CL	50	
28						SILTY CLAY, low, very stiff, damp/dry, reddish
29	4.8			CL	50	brown, no odor, calcareous,
30						SILTY CLAY, low, firm/crumbly, damp to dry,
31	4.6			CL	90	reddish brown, no odor, calcareous,
32						SILTY CLAY, STA, stiff to very stiff,
33	4.3			CL	80	
34						SILTY CLAY, STA,
35	3.6			CL	80	
36						SILTY CLAY, STA,
37	1.9			CL	10	
38						SILTY CLAY, STA,
39	4.4			CL	20	
40						SILTY CLAY, STA,
41	3.8			CL	80	
42						SILTY CLAY, low, very stiff, crumbly, damp to
43	3.8			CL	20	dry, reddish brown, no odor,
44						SILTY CLAY, STA,
45	3.9			CL	60	
46						SILTY CLAY, STA,
47	3.8			CL	40	
48						SILTY CLAY, STA,
49	3.7			CL	20	
50						
51						
52						

Completion Results

MKTF-44



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Appendix B

Investigation Derived Waste Management Plan

Investigation Derived Waste (IDW) Management Plan

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

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

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

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