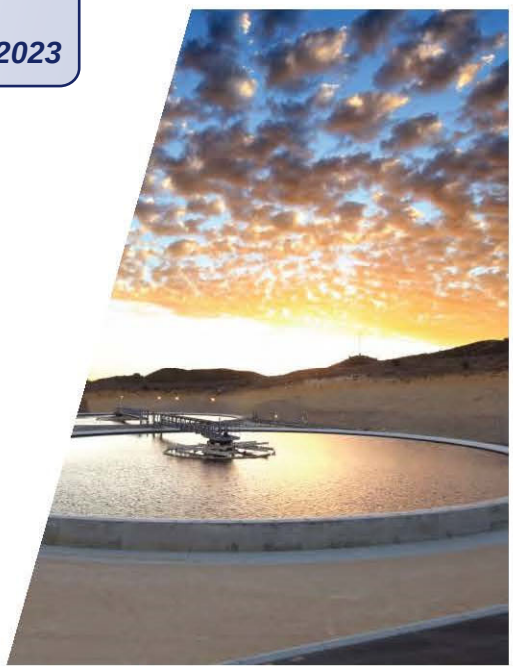
REVIEWED
By Mike Buchanan at 3:31 pm, Aug 10, 2023

Review of the Site Status Report for 2021: **Content Satisfactory**
1. Recondition well HTRW-1 by Air Sparging technique.
2. Please continue to sample and monitor wells quarterly or semi-annually as appropriate.
3. Received the 2022 Annual Report. Please submit the 2023 Annual Report by or before April 1, 2024.

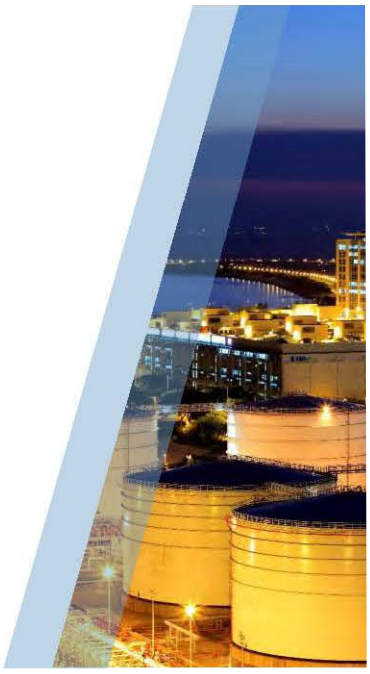


Site Status Report for 2021

Hobbs Tank 5201 Release AP-113
Lea County, New Mexico

April 2022

HollyFrontier



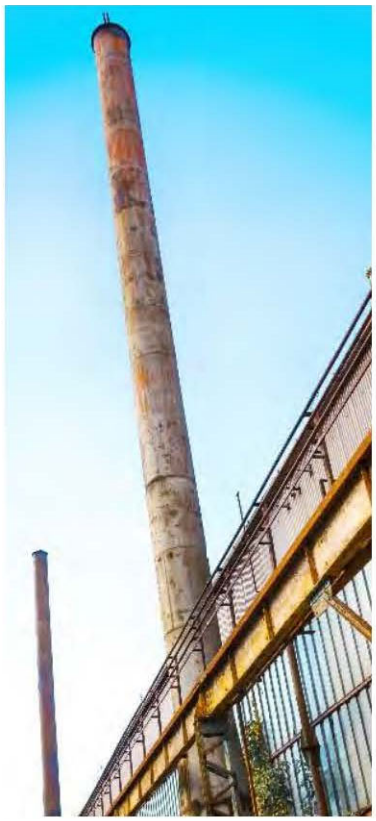


Table of Contents

Figure Index

Tables

Appendices

1. Introduction

This 2021 status report is submitted by GHD Services, Inc. (GHD), on behalf of HollyFrontier for the Hobbs Tank 5201 Release, AP-113, (Site), located in Lea County, New Mexico (**Figure 1**). The C-141 notification for the release was submitted to the New Mexico Oil Conservation District (NMOCD) on July 22, 2004. This report includes the status of groundwater monitoring and remediation at the Site for the period from March 2021 to December 2021.

1.1 Site Background

On July 22, 2004, a leak of an unknown volume of crude oil was discovered in a 6-inch pipeline from the crude oil truck unloading rack at the storage tank 5201 (**Figure 2**). The line was exposed and clamped, and the section was replaced, immediately. Petroleum-stained soil from the release was immediately excavated in an area that covered approximately 4 feet by 20 feet by 18 feet deep. Additional staining observed close to the tank was not excavated due to the proximity of the tank and fear of compromising the 1930-vintage tank's structural integrity. No fluid was observed during the excavation.

1.2 Site Setting

The Site is located approximately 3.5 miles south of Hobbs, New Mexico on County Road 61 in the NW ¼ of the NW ¼ of Section 22, Township 19 South, and Range 38 East in Lea County, New Mexico (32° 39.079' N, 103°8.530' W). The topography at the Site is relatively flat and the average elevation is 3,595 feet mean sea level (**Figure 1**). The Site is located on property within the Holly Energy Partners tank farm, which is on property owned by Enterprise Products and is surrounded by fencing with access controlled by a locked gate. The surrounding area contains crude oil storage tanks, pipelines, and open rangeland.

1.3 Site Geology and Hydrogeology

The surface soils encountered at the Site are silty to fine sands approximately 10-feet thick. This surface soil is consistent with the surface soil description (Quaternary sediment) for this physiographic province. The soil types encountered below this surface layer at the Site are indurated (hardened) calcium carbonate intervals of variable thickness locally referred to as "caliche", fine-grained sand, sandstone with caliche and the saturated zone consisting of fractured sandstone.

Groundwater in the area of the Site is primarily produced from the Ogallala aquifer. The Ogallala Formation unconformably overlies the Triassic age Dockum group. The Dockum group consists of red shale and sandstone and is commonly referred to as "red beds". The red beds can exceed 1,000 feet in thickness in this region and may produce small amounts of poor-quality water at the bottom of the formation.

The regional groundwater flow direction in the Ogallala is toward the southeast and follows the Triassic subcrop surface. Groundwater quality is very good with total dissolved solids (TDS)

concentrations typically below 1,000 mg/L. Recharge primarily occurs via infiltration from precipitation events.

Groundwater at the Site is found in fractured sandstone consistent with the Ogallala aquifer. The depth to groundwater at the Site is approximately 50 feet-below ground surface (ft-bgs). The groundwater flow is towards the east-southeast and the groundwater gradient is approximately 0.001ft/ft.

1.4 Summary of Site Conditions

Safety and Environmental Solutions Inc. (SES) installed six groundwater monitoring wells, one recovery well and advanced seven boreholes shortly after the release to characterize the release and recover the released crude oil in the area of the tank. Five boreholes and two monitoring wells were installed inside of the berm area in 2004. The first borehole was completed as a 2-inch monitor well (MW-1), adjacent to the leak location. Two monitoring wells, MW-2 and MW-3, were installed outside the bermed area in 2004. A 4-inch recovery well (RW-1) was installed in the area near the tank and MW-1 in 2004. In 2010, two additional monitoring wells were installed, MW-4, outside the bermed area and MW-5, up-gradient and inside the bermed area (**Figure 2**).

SES monitored groundwater conditions and recovered crude oil from wells MW-1 and RW-1 from 2004 to 2011. In 2004, crude oil was initially measured in MW-1 at approximately 6 feet thick. In the recovery well, RW-1, the initial product thickness was measured at 2.75 feet. Crude oil was not found in any other areas of the Site. In 2005, outside the tank berm area and approximately 200 feet southeast from the release point, benzene was detected in the down-gradient area in monitor well MW-2 at a concentration of 72 µg/L, which is above the New Mexico Water Quality Control Commission (NMWQCC) standard of 5 µg/L. Benzene has not been detected above the standard in this well or in any other monitoring wells located down-gradient and outside the berm area since 2005.

In June 2013, four recovery wells were installed by GHD within the berm area and near the release area to delineate the crude oil and to recover crude oil (**Figure 2**). In September 2013, a crude oil only recovery system with remote access was installed with oil only skimmer pumps in well RW-1 and recovery wells, HTRW-1 and HTRW-3. This system was used until March 2015 when only negligible amounts of recoverable oil were remaining in the area. Since 2015, Enhanced Fluid Recovery (EFR) using a vacuum truck was used to recover crude oil from wells MW-1, RW-1, HTRW-1 and HTRW-3. Oil absorbent socks have been used in these wells when EFR was not used during the months between EFR uses and are currently in use in wells MW-1, RW-1, and HTRW-3.

Appendix A contains information on fluid levels and crude oil thickness since 2012. Wells MW-1 and RW-1 contained oil sporadically from 2012 to March 2019. HTRW-1 contained oil sporadically from 2013 to October 2016. Wells HTRW-2 and HTRW-4 have never showed any measurable oil. HTRW-3 had shown measurable oil from 2013 to 2020 and none has been measured in this well since June 2020 (**Appendix A**).

1.5 Site Conceptual Model

The Site is located in an area of multiple crude oil gathering lines and storage tanks and 2 miles west of Highway 18 and three miles south of Hobbs, New Mexico. The entire site is fenced, and

access is restricted for people and cattle. The closest residences are approximately 0.5 miles northeast of the Site (**Figure 1**). The closest drinking water well (L08890) is located approximately 900 feet to the southeast of the Site. This well was sampled for hydrocarbons following the discovery of the release and was not impacted by the release (Stage 1/Stage 2 Abatement Plan, November 2012, CRA). Another well (l08279) located approximately 1900 ft northeast from the site was sampled in March 2019 and showed no detections of any inorganic or hydrocarbon constituents above state standards.

Groundwater at the Site is found at approximately 50 ft-bgs and the groundwater flow direction is towards the southeast at an average gradient of approximately 0.001 feet/foot (ft/ft). One monitoring well (MW-5) is located up-gradient of the release area and four monitoring wells are located down-gradient of the release. The dissolved phase hydrocarbon concentrations in groundwater at these locations have been below the NMWQCC standards for benzene, toluene, ethylbenzene and total xylenes (BTEX) since 2005. The impacts to groundwater, from the release, appear to be limited to the immediate area of the leak located near the tank. Recovery well HTRW-1 has had detections of benzene. In December 2019, the benzene concentration (the only constituent above state NMWQCC standards) in this well was 57.5 µg/L, in December 2020 the benzene concentration was 626 µg/L and in December 2021 benzene was detected below the standard at 2.49 µg/L (**Table 1**).

The primary chemicals of concern are hydrocarbon constituents that have dissolved from the released crude oil. The NMWQCC standards for hydrocarbons in groundwater for this Site are:

- 5 micrograms per liter (µg/L) for benzene
- 1000 µg/L for toluene
- 700 µg/L for ethylbenzene
- 620 µg/L for total xylenes

The only detection of benzene above the standard outside the berm area was detected in well MW-2 at 72 µg/L in January 2005. Presently, the only well that has had a detection of benzene above the standard is located within the berm area in well HTRW-1. The polycyclic aromatic hydrocarbons (PAHs) analyses for all sampled wells showed no detections of any PAHs above the laboratory lower method reporting limit for five consecutive sampling events conducted from March 2018 to March 2019.

Groundwater samples were analyzed for TDS, chloride and RCRA metals, which included arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver for all sampled wells in 2014, 2016, 2017, 2019 and 2020 (**Table 2**). The analyses showed none of these constituents were above state standards in 2019 and 2020 (**Table 2**).

There appears to be no remaining threat to the environment or to drinking water wells located in the area caused by the release and any remaining impacts. Dissolved phase hydrocarbons have only been detected in the immediate area of the release. Other constituents (PAHs) and RCRA metals that may be associated with the released oil have not been detected consistently within the berm area near the release or outside the berm area and down-gradient of the release above state standards. Crude oil has not been measured in any wells since June 2020 and the only well that has shown detections of benzene above the standard is recovery well HTRW-1, which had contained oil until 2016.

2. Site Activities

Groundwater monitoring was conducted at the Site by GHD for 2021 in March, June, September, and December. The groundwater monitoring included measurement of fluid levels in all monitoring wells and the recovery wells, collection of groundwater samples for laboratory analysis for BTEX and total petroleum hydrocarbons-gasoline range organics (TPH-GRO) and total petroleum hydrocarbons- diesel range organics (TPH-DRO). Remediation activities that have been performed in well HTRW-1 in 2021, have included Cool-Ox, EFR using a vacuum truck and air injection.

3. Groundwater Monitoring Procedures and Results

For this reporting period, fluid levels were measured in all monitoring wells and recovery wells at the Site in 2021. Groundwater samples were collected on a semiannual basis from the monitor wells MW-4, and MW-5, and from recovery well HTRW-1, quarterly. Groundwater samples were not collected from monitoring wells MW-2 and MW-3 in 2021, as both wells were dry all year or contained an insufficient amount of water for sample acquisition. **Appendix A** shows historical fluid levels from 2012 to December 2021. **Table 1** summarizes hydrocarbon analytical results for 2021. **Appendix B** summarizes historical analytical results from August 2004 to December 2021.

Prior to purging of the wells and obtaining groundwater samples, fluid levels were measured in the wells that have contained crude oil, using an oil/water level indicator. The monitor wells were purged prior to sample acquisition at a rate of 160 ml/min or less or with disposable bailers. Groundwater samples were collected following stabilization of the field parameters. The meters used for the field parameters were calibrated prior to use. Field parameters obtained prior to sampling included temperature, specific conductance, pH, dissolved oxygen, and oxidation-reduction potential (ORP) and are tabulated in **Appendix B**. The groundwater samples were analyzed for BTEX by Method 8260 and for TPH-GRO and TPH-DRO by Method 8015. Groundwater samples were immediately placed into the appropriate laboratory provided containers and placed in an ice-chilled cooler for transport to the DHL laboratory, Round Rock, TX under chain-of-custody procedures.

March 2021

In March 2021, crude oil was not measured in any of the other wells. The crude oil thicknesses for March 2021 are shown in **Figure 3** and detailed in **Appendix A**.

Water levels measured in March 2021 were generally 0.10 to 0.20 feet lower than water levels measured in December 2020. For the March 2021 monitoring period, the groundwater flow (**Figure 4**) was towards the southeast with a gradient of 0.001 ft/ft (0.001 ft/ft in March 2020).

The March 2021 hydrocarbon concentrations for each sampled well are shown in **Table 1, Figure 8** and in **Appendix B**. Wells MW-2 and MW-3 were not sampled due to insufficient water in the wells. The March 2021 laboratory report is contained **Appendix C**.

The analytical results for this monitoring period are summarized as follows:

- None of the BTEX constituents, were detected above NMWQCC standards in wells MW-4 and MW-5.

- Benzene was detected above the NMWQCC standard in well HTRW-1 at 849 µg/L.
- Ethylbenzene and xylenes were detected in well HTRW-1 below the NMWQCC standards.
- TPH-GRO was detected above the lower laboratory reporting limit (0.06 mg/L) in well HTRW-1 at 2.36 mg/L and was not detected above the limit in wells MW-4 and MW-5.
- TPH-DRO were detected above the lower laboratory reporting limit only in well MW-4 at 0.179 mg/L.

Concentrations of dissolved hydrocarbons in groundwater during the March 2021 monitoring period were not detected in wells above the NMWQCC standards outside the berm area (**Figure 8**).

June 2021

In June 2021, crude oil was not measured in any of the wells. The crude oil thicknesses for June 2021 are shown in **Figure 3** and detailed in **Appendix A**.

Water levels measured in June 2021 were approximately 0.10 to 0.20 feet lower than water levels measured in March 2021. For the June 2021 monitoring period, the groundwater flow was towards the southeast with a gradient of 0.001 ft/ft (0.001 ft/ft in June 2020), as previously observed (**Figure 5**).

The June 2021 hydrocarbon concentrations for each sampled well are shown in **Table 1, Figure 8** and in **Appendix B**. Wells MW-2 and MW-3 were not sampled due to insufficient water in the wells. Wells MW-4 and MW-5 were not sampled this quarter and will be sampled on semiannual basis. The June 2021 laboratory report is contained **Appendix C**.

The analytical results for this monitoring period are summarized as follows:

- Benzene was detected above the NMWQCC standard in well HTRW-1 at 765 µg/L.
- Toluene, ethyl-benzene and total xylenes were not detected above the NMWQCC standards in HTRW-1.
- TPH-GRO was detected above the lower laboratory reporting limit (0.06 mg/L) in well HTRW-1 at 1.70 mg/L.
- TPH-DRO was not detected above the lower laboratory reporting limit (0.147 mg/L) in well HTRW-1.

September 2021

In September 2021, crude oil was not measured in any of the wells. The crude oil thicknesses for September 2021 are shown in **Figure 3** and detailed in **Appendix A**.

Water levels measured in September 2021 were generally 0.10 feet lower than water levels measured in June 2021. For the September 2021 monitoring period the groundwater flow (**Figure 6**) was towards the southeast with a gradient of 0.001 ft/ft (0.001 ft/ft in September 2020).

The September 2021 hydrocarbon concentrations for each sampled well are shown in **Table 1**, **Figure 8** and in **Appendix B**. Wells MW-2 and MW-3 were not sampled due to insufficient water in the wells. Wells MW-4 and MW-5 were not sampled this quarter and will be sampled on semiannual basis. The September 2021 laboratory report is contained **Appendix C**.

The analytical results for this monitoring period are summarized as follows:

- Benzene was detected below the NMWQCC standard in well HTRW-1 at 1.20 µg/L.
- Toluene, ethyl-benzene and total xylenes were not detected above the NMWQCC standards in HTRW-1.
- TPH-GRO was not detected above the lower laboratory reporting limit (0.06 mg/L) in well HTRW-1; and
- TPH-DRO was not detected above the lower laboratory reporting limit (0.551 mg/L) in well HTRW-1.

December 2021

In December 2021, crude oil was not measured in any of the wells. The crude oil thicknesses for December 2021 are shown in **Figure 3** and detailed in **Appendix A**.

Water levels measured in December 2021 were generally 0.20 feet lower than water levels measured in September 2021. For the December 2021 monitoring period the groundwater flow (**Figure 7**) was towards the southeast with a gradient of 0.001 ft/ft (0.001 ft/ft in December 2020).

The December 2021 hydrocarbon concentrations for each sampled well are shown in **Table 1**, **Figure 8** and in **Appendix B**. Wells MW-2 and MW-3 were not sampled due to insufficient water in the wells. The December 2021 laboratory report is contained **Appendix C**.

The analytical results for this monitoring period are summarized as follows:

- None of the BTEX constituents were detected above the NMWQCC standards in wells MW-4 and MW-5.
- Benzene was detected below the NMWQCC standard in well HTRW-1 at 2.49 µg/L.
- Toluene, ethyl-benzene and total xylenes were not detected above the NMWQCC standards in HTRW-1.
- TPH-GRO and TPH-DRO were not detected above the lower laboratory reporting limits in wells MW-4, MW-5 and HTRW-1.

Concentrations of dissolved hydrocarbons in groundwater during the December 2021 monitoring period were not detected in wells above the NMWQCC standards inside and outside the berm area **(Figure 8**).

4. QA/QC Results

Quality Assurance/Quality Control (QA/QC) measures were followed according to the abatement plan. A summary of the QA/QC analytical results is presented in **Table 2** for this reporting period. Prior to sampling, the YSI water quality meter was calibrated with the appropriate standards.

Duplicate groundwater samples were collected in March and December 2021. The duplicate samples were analyzed for BTEX, TPH-GRO, and TPH-DRO. There was little or no difference in the duplicate results.

Each cooler containing the groundwater samples was shipped to the laboratory with a temperature blank and a laboratory prepared trip blank. The trip blank samples were analyzed for BTEX and TPH-GRO. There were no detections above the lower laboratory reporting limits for BTEX and TPH-DRO in any of the trip blank samples that were submitted (**Table 2**). All samples were analyzed within the holding times and all coolers were received at the proper temperature. Based on this evaluation, all the data meets acceptance criteria and is suitable for use in this report.

5. Remediation Status

The crude oil from the release has historically been found in the central portion of the Site, in the immediate area of Tank 5201 and inside the tank berm. Crude oil has not been measured in any monitoring wells located outside of this area of the release. Crude oil was recovered from wells using a crude oil only skimmer pump system from September 2013 to December 2015. From December 2015 to January 2018, EFR was used to recover the oil and oil absorbent socks have been used for any *de minimus* remaining oil since 2018. The crude oil thickness in Site wells for March 2021 to December 2021 is shown in **Figure 3** and detailed in **Appendix A**.

Crude oil from the releases has not recharged at a recoverable rate since March 2018 and has been declining in wells near the release since September 2013 (**Appendix A**). The maximum crude oil thickness measured in well RW-1 was in December 2012 at 3.01 feet and presently does not have any measured oil. The maximum crude oil thickness was measured in well MW-1 at 3.62 feet in August 2012 and has not shown any measured PSH since March 2020 (**Figure 3**). The maximum crude oil thickness in HTRW-3 was measured at 1.70 in December 2015 and presently does not have any measured oil (**Figure 12**). Crude oil has never been measured in wells HTRW-2 and HTRW-4 since installation of the wells in 2013 and HTRW-1 has not shown any oil since 2016 (**Appendix A**).

The Site total accumulated thickness of the crude oil as measured in all wells for the Site has declined from 8.50 feet in 2013 to 1.72 feet in December 2015, to 0.03 feet in June 2016, to 0.53 feet in December 2016, to 0.04 feet in June 2017 to 0.05 feet in December 2018 to 0.18 feet in December 2019. Presently, the Site total accumulated thickness of the crude oil as measured in all wells is 0.00 feet (**Figure 10**).

In 2021, remediation activities for Well HTRW-1 have included the use of Cool-Ox, EFR and air sparging. Cool-Ox (calcium peroxide) was used in well HTRW-1 to clean the well and treat any remaining crude oil. EFR was used on wells RW-1 and HTRW-3 to remove impacted groundwater. Initially, the water from these wells was discolored and with time the water clarity improved considerably. An aeration system was installed in well HTRW-1 with air being pumped into the well continuously.

6. Conclusion

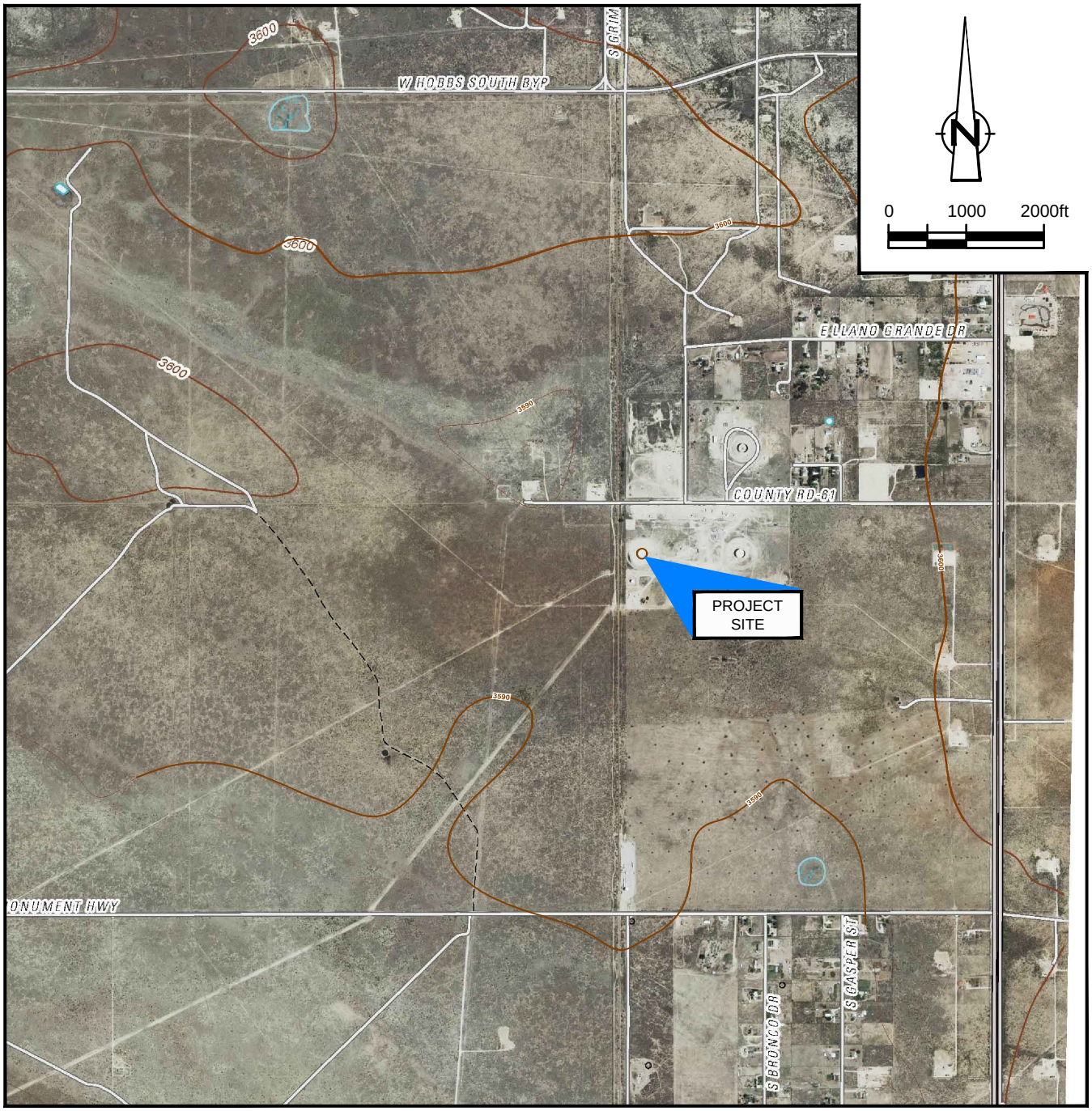
The crude oil thickness from the release has declined to none measured due to removal of the crude oil by pumping, the use of EFR and oil absorbent socks since 2012. There has been no measurable crude oil in any of the wells since June 2020.

The following items based on discussion with NMOCD will be addressed in 2022:

- Recondition well HTRW-1 by using air sparging.
- Well HTRW-1 will be sampled quarterly.
- All other wells will be sampled semiannually if sufficient water is present.

All groundwater samples will be analyzed for BTEX, GRO and DRO. The remedial strategy for site closure is based on the current NMOCD requirements. To close the Site with no further action, the crude oil would first have to be removed separately from groundwater (19.15.17.13 NMAC) to a *de minimus* amount. To date, there has been two consecutive quarters with no detections of benzene above the state standard in well HTRW-1.

Figures



SOURCE: USGS 7.5 MINUTE QUAD
"HOBBS WEST AND HOBBS EAST, NEW MEXICO" DATED 2010

LAT/LONG: 32.6549° NORTH, 103.1382° WEST
COORDINATE: NAD83 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

figure 1

SITE LOCATION MAP
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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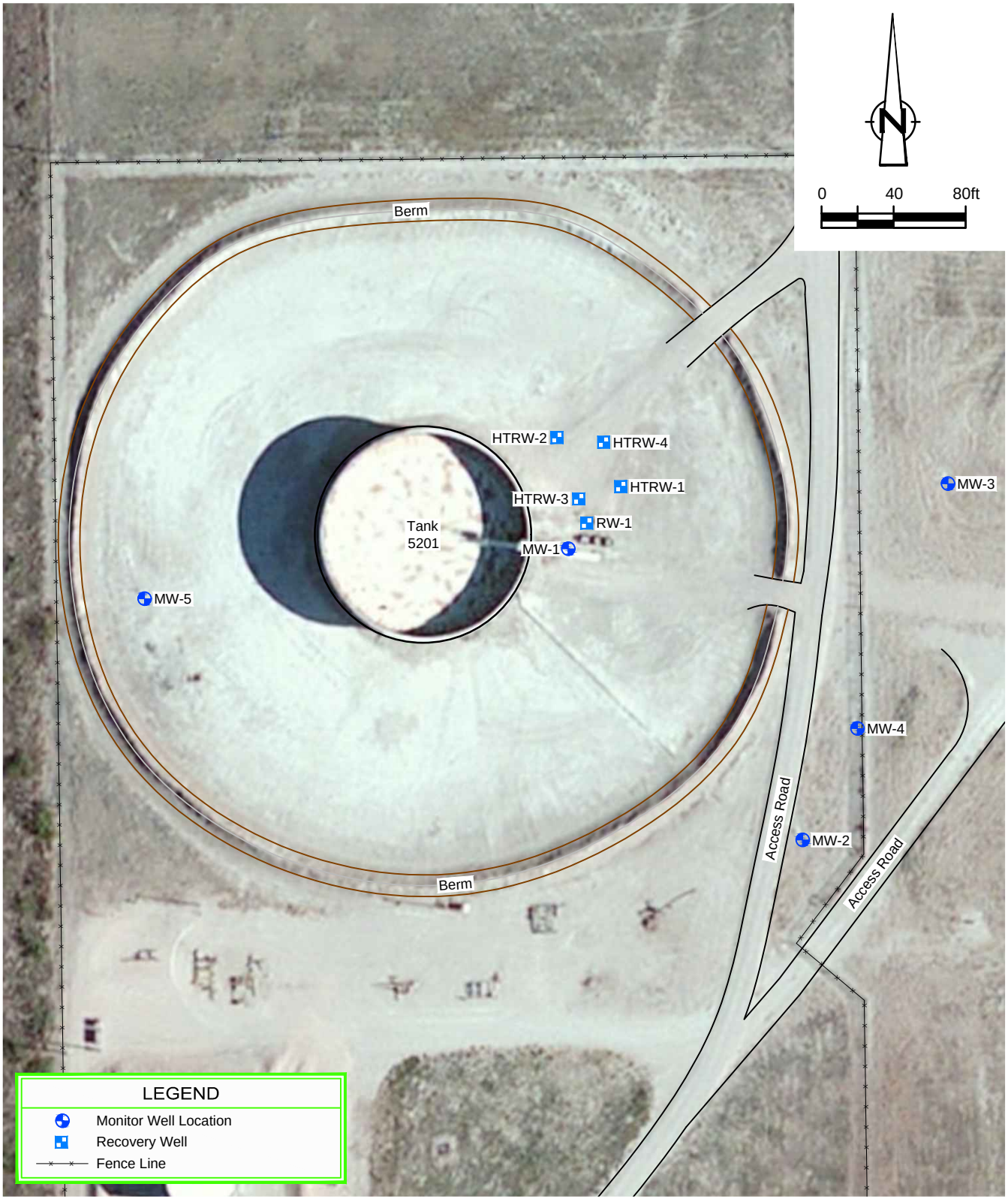

figure 2

SITE MAP
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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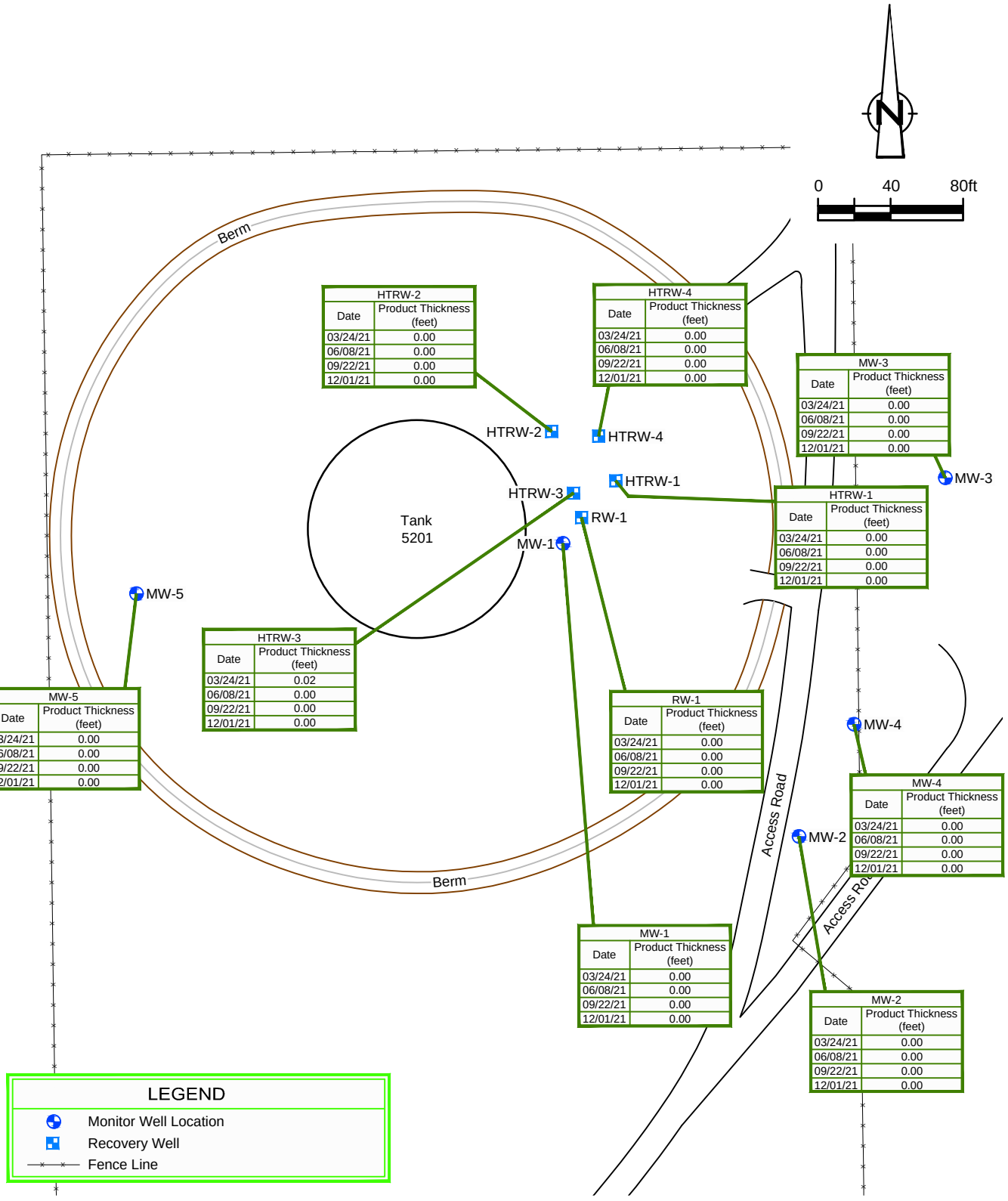

figure 3

PRODUCT THICKNESS MAP - MARCH 2021 TO DECEMBER 2021
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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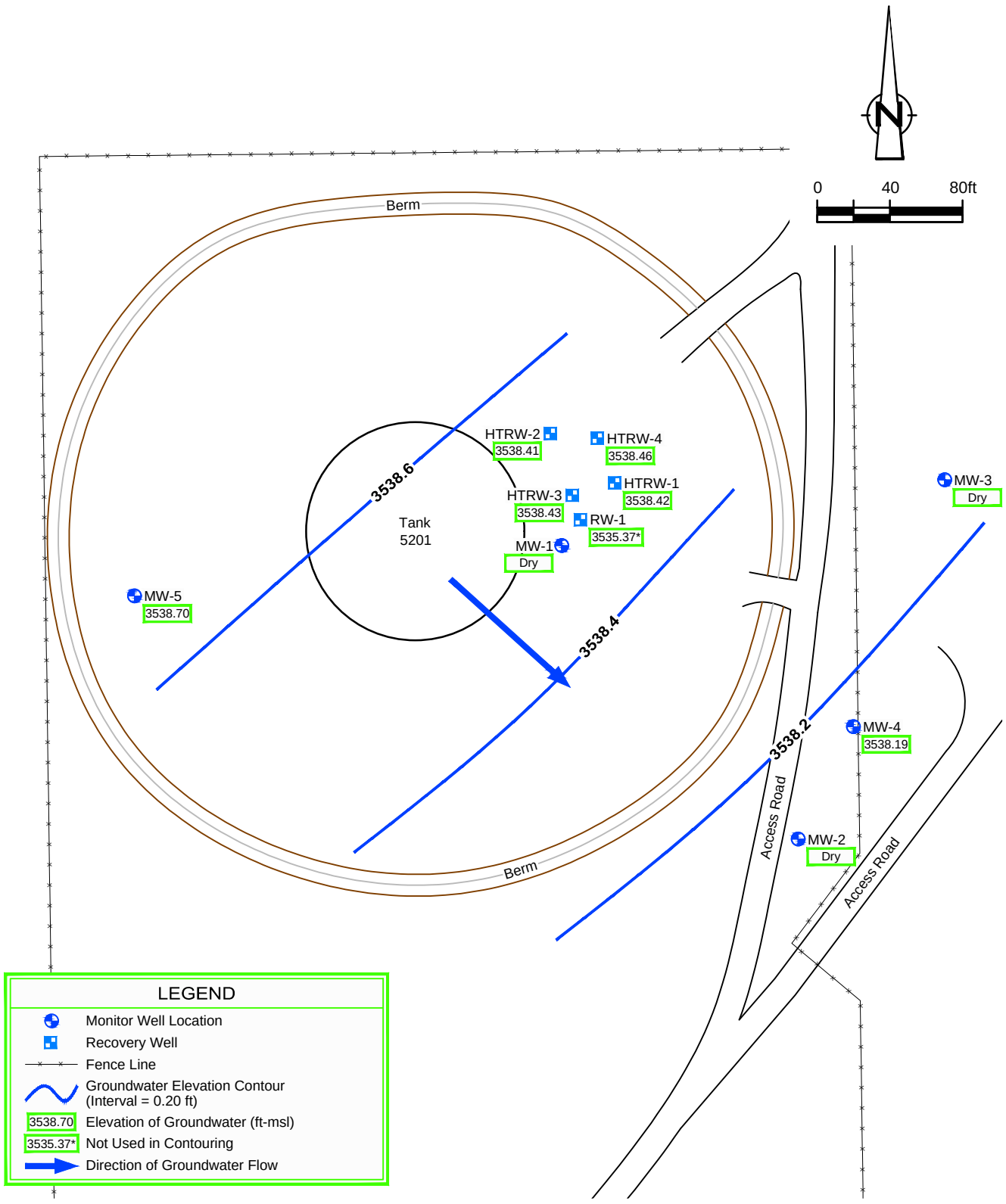

figure 4

GROUNDWATER SURFACE MAP - MARCH 2021
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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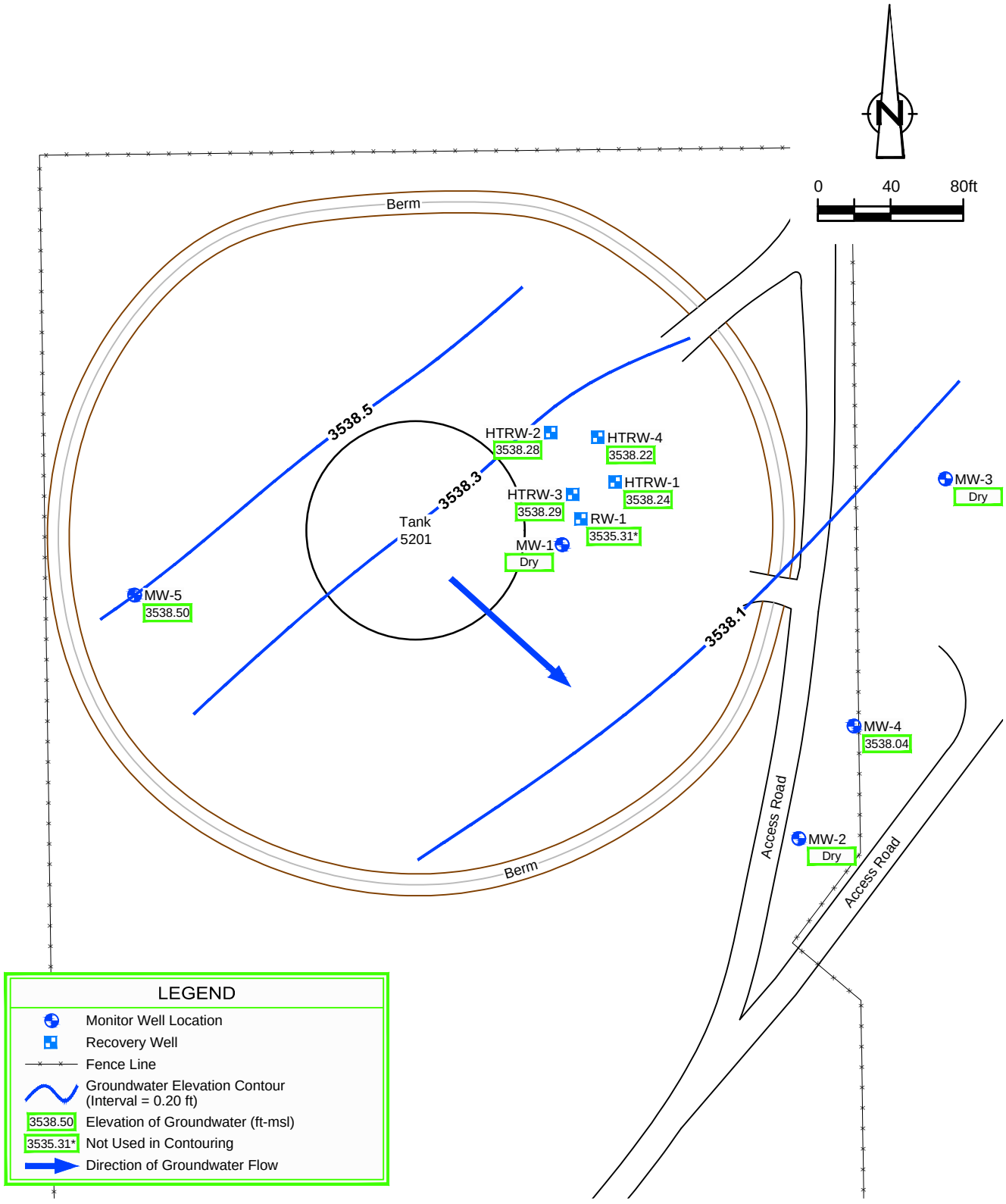

figure 5

GROUNDWATER SURFACE MAP - JUNE 2021
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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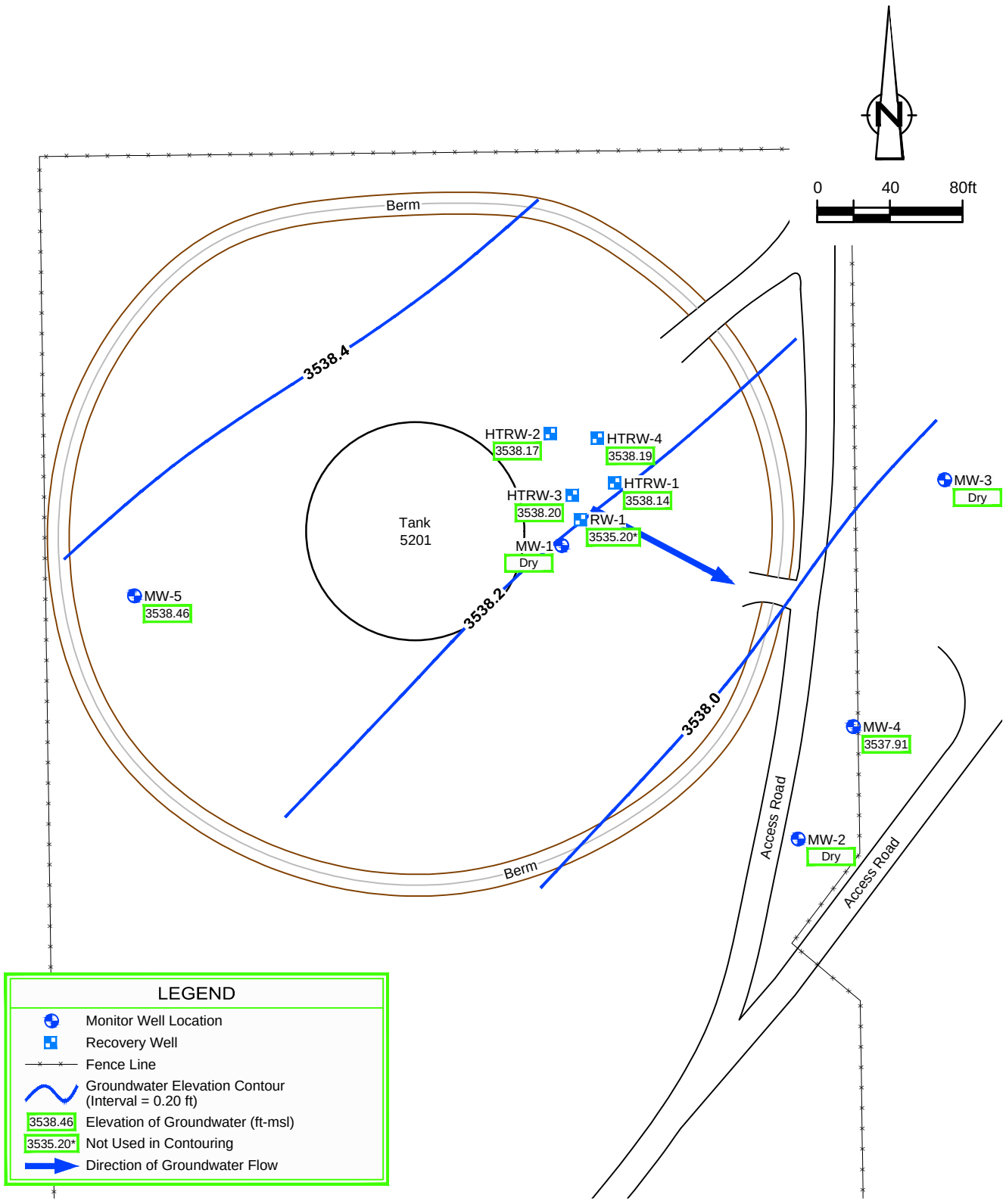

figure 6

GROUNDWATER SURFACE MAP - SEPTEMBER 2021
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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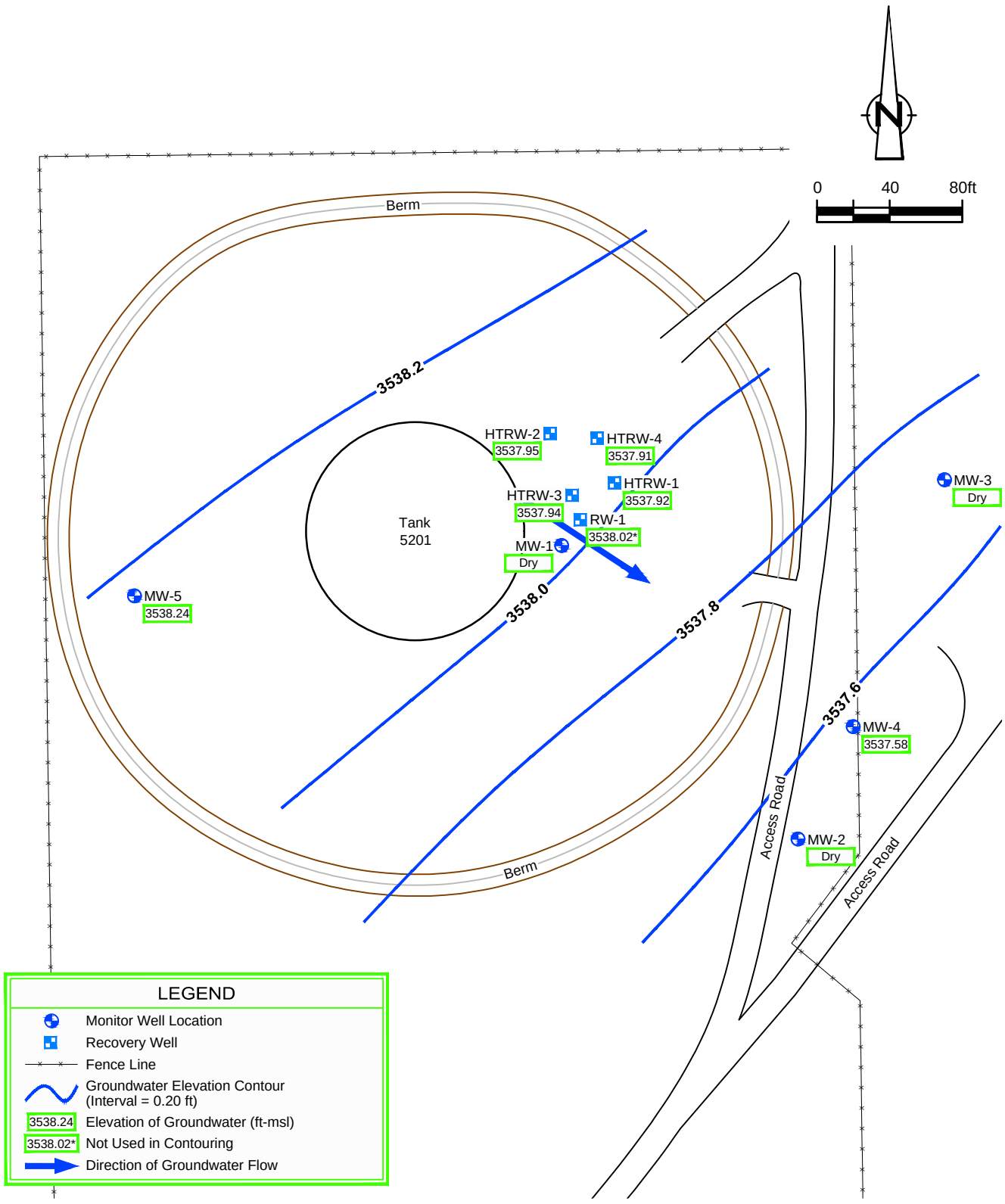

figure 7

GROUNDWATER SURFACE MAP - DECEMBER 2021
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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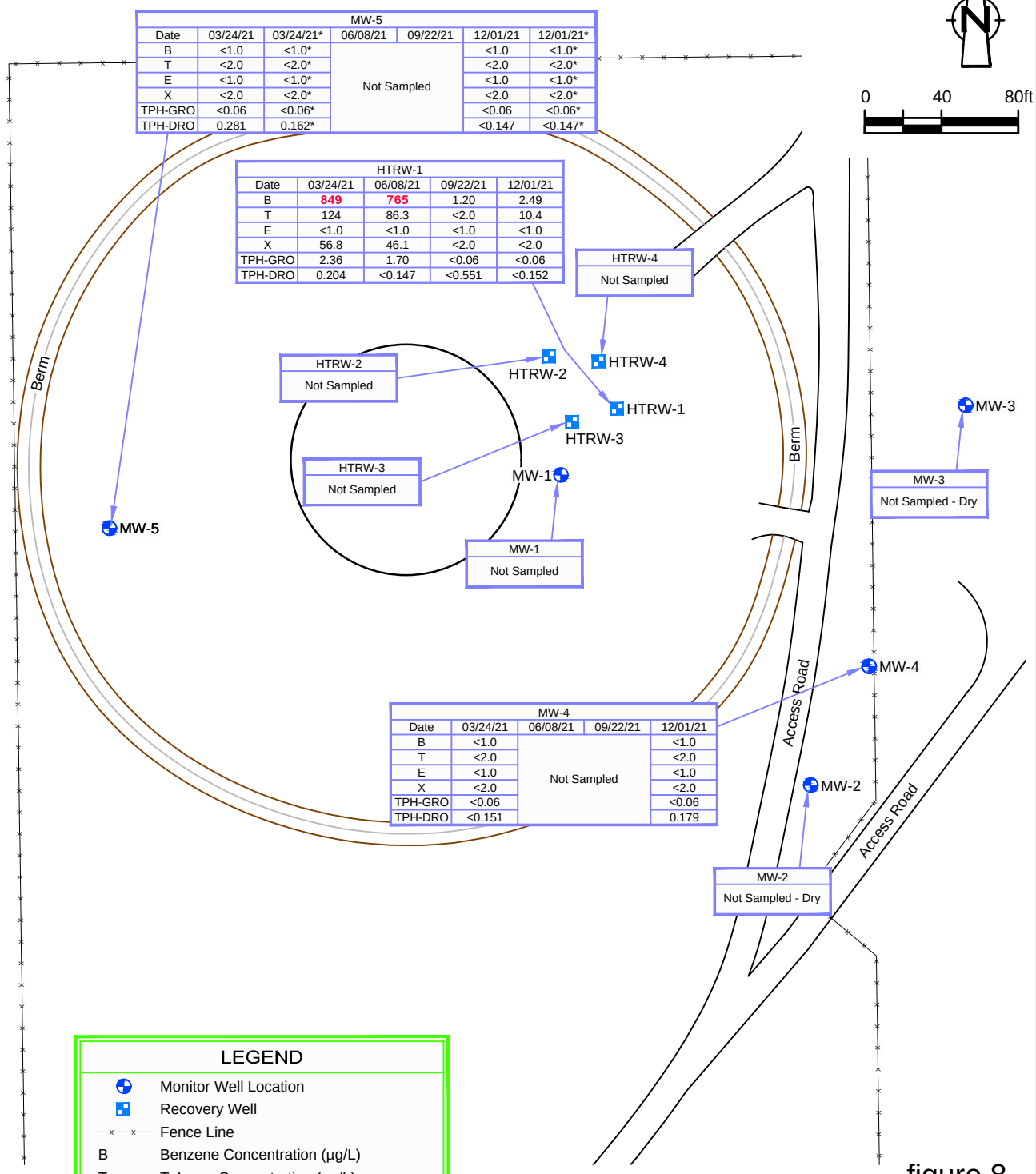

figure 8

ANALYTICAL MAP FOR MARCH 2021 TO DECEMBER 2021 HOBBS STATION TANK 5201 HOBBS, NEW MEXICO

HollyFrontier

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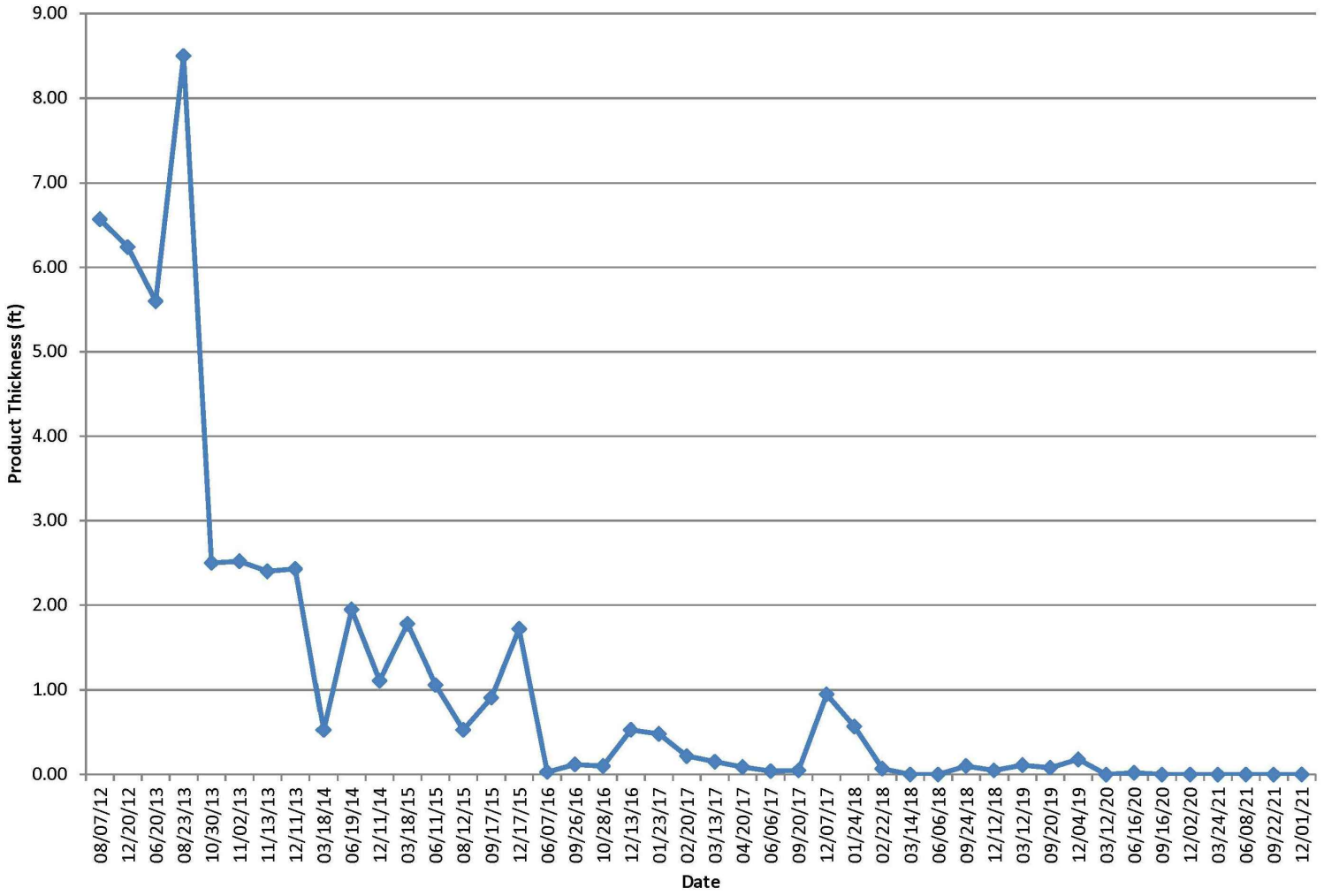

figure 9

SITE TOTAL ACCUMULATED CRUDE OIL THICKNESS
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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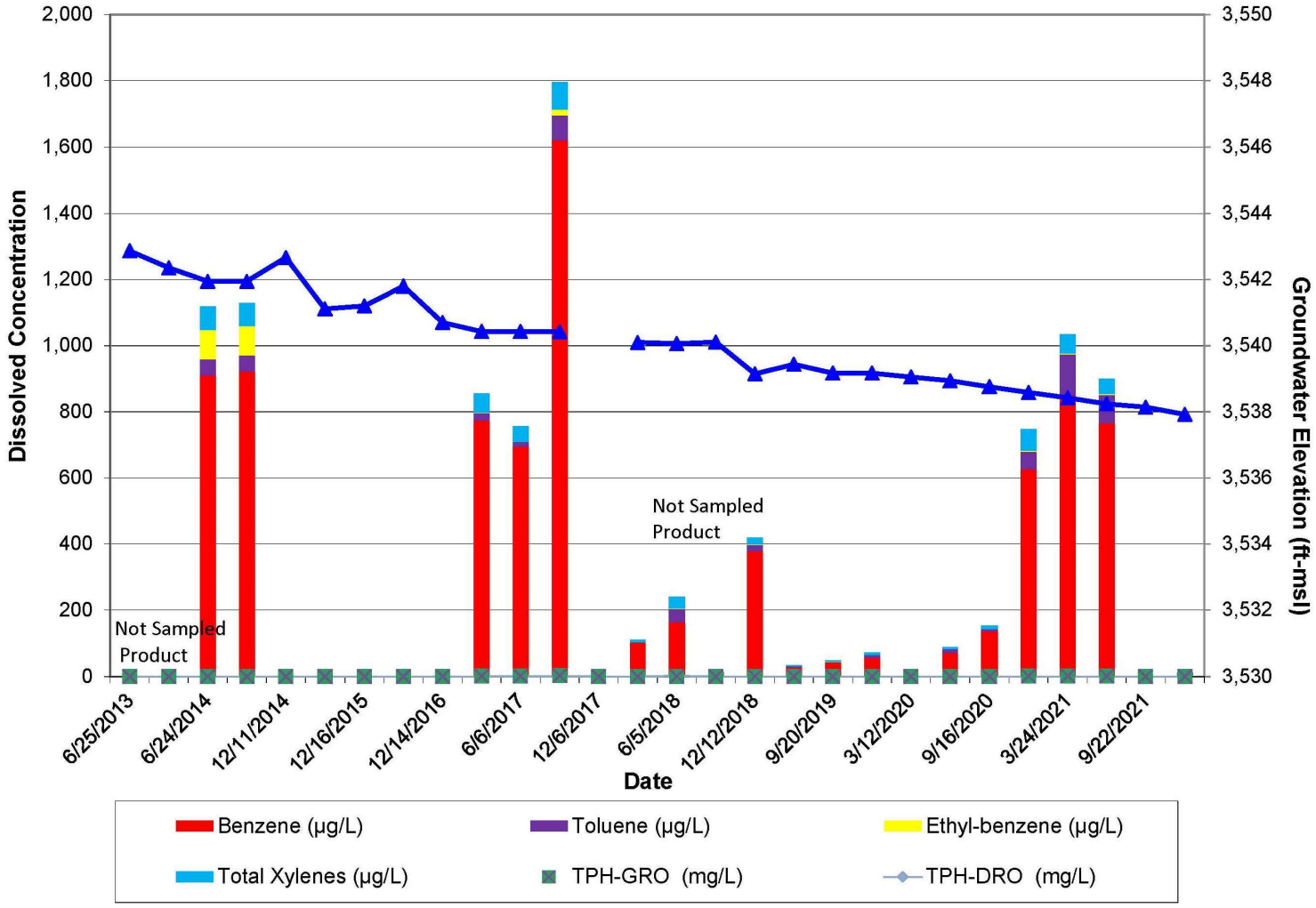

figure 10

HYDROCARBON CONCENTRATIONS FOR HTRW-1
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

GHD

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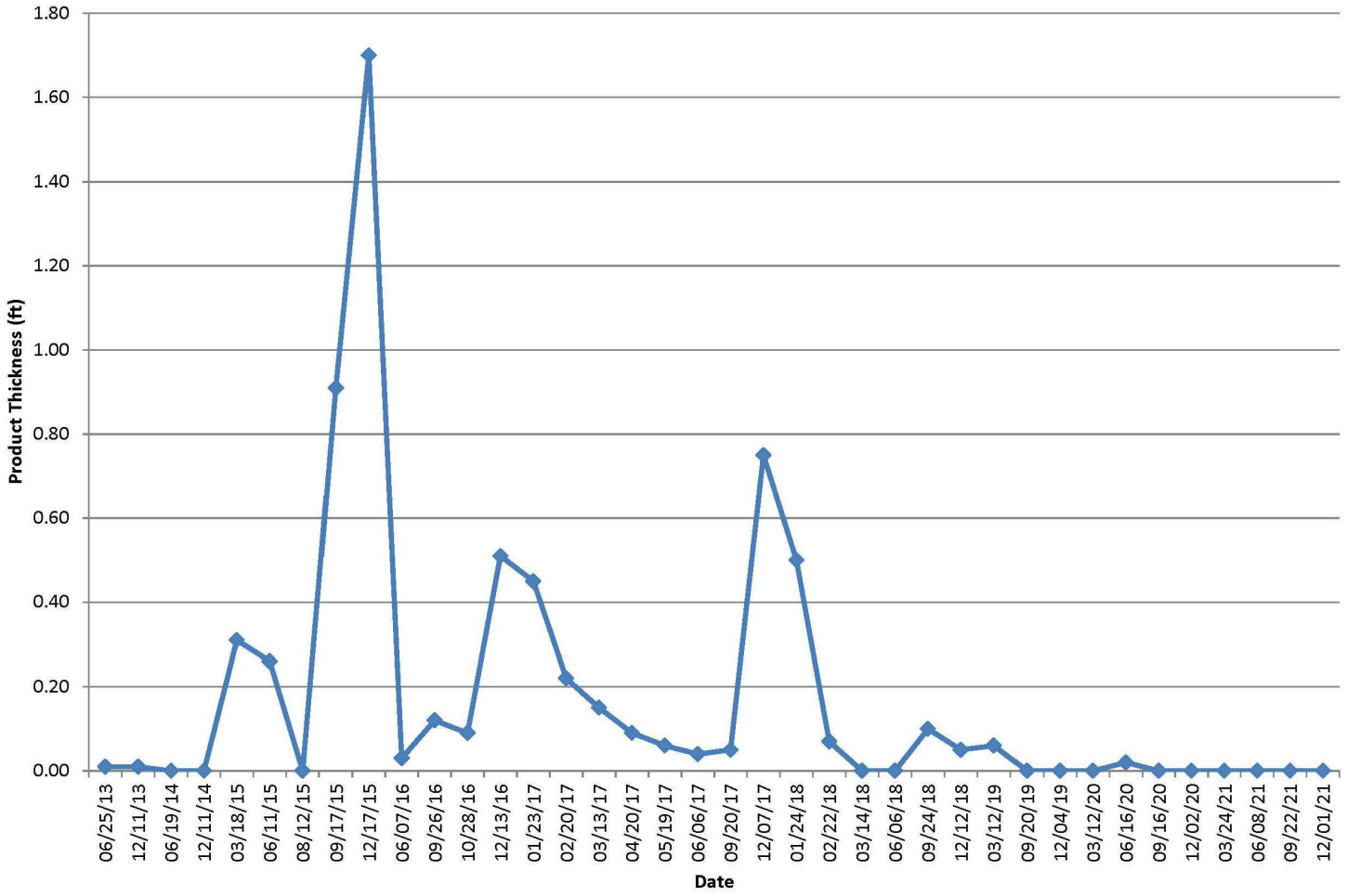

figure 11

CRUDE OIL THICKNESS FOR HTRW-3
HOBBS STATION TANK 5201
HOBBS, NEW MEXICO
HollyFrontier

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Tables

Table 1 **Summary of Groundwater Hydrocarbon Results for 2021**
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (ft)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)
NMWQCC Groundwater Standards		5	1000	700	620	NE	NE			
MW-1	03/24/21	NS	NS	NS	NS	NS	NS	0.00	dry	dry
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	dry	dry
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	dry	dry
	12/01/21	NS	NS	NS	NS	NS	NS	0.00	dry	dry
MW-2	03/24/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	06/08/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	09/22/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	12/01/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
MW-3	03/24/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	06/08/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	09/22/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
	12/01/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	0.00	dry	dry
MW-4	03/24/21	<1.0	<2.0	<1.0	<2.0	<0.06	<0.151	0.00	52.66	3,538.19
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	52.81	3,538.04
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	52.94	3,537.91
	12/01/21	<1.0	<2.0	<1.0	<2.0	<0.06	0.179	0.00	53.27	3,537.58
MW-5	03/24/21	<1.0	<2.0	<1.0	<2.0	<0.06	0.281	0.00	54.05	3,538.70
duplicate	03/24/21	<1.0	<2.0	<1.0	<2.0	<0.06	0.162	0.00	54.05	3,538.70
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	54.05	3,538.50
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	54.29	3,538.46
	12/01/21	<1.0	<2.0	<1.0	<2.0	<0.06	<0.147	0.00	54.51	3,538.24
duplicate	12/01/21	<1.0	<2.0	<1.0	<2.0	<0.06	<0.147	0.00	54.51	3,538.24
HTRW-1	03/24/21	**849**	124	<1.0	56.8	2.36	0.204	0.00	49.72	3,538.42
	06/08/21	**765**	86.3	<1.0	46.1	1.70	<0.147	0.00	49.90	3,538.24
	09/22/21	1.20	<2.0	<1.0	<2.0	<0.06	<0.551	0.00	50.00	3,538.14
	12/01/21	2.49	10.4	<1.0	<2.0	<0.06	<0.152	0.00	50.22	3,537.92
HTRW-2	03/24/21	NS	NS	NS	NS	NS	NS	0.00	49.10	3,538.41
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	49.23	3,538.28
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	49.34	3,538.17
	12/01/21	NS	NS	NS	NS	NS	NS	0.00	49.56	3,537.95
HTRW-3	03/24/21	NS	NS	NS	NS	NS	NS	0.02	50.32	3,538.43
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	50.46	3,538.29
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	50.55	3,538.20
	12/01/21	NS	NS	NS	NS	NS	NS	0.00	50.81	3,537.94
HTRW-4	03/24/21	NS	NS	NS	NS	NS	NS	0.00	50.11	3,538.46
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	50.35	3,538.22
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	50.38	3,538.19
	12/01/21	NS	NS	NS	NS	NS	NS	0.00	50.66	3,537.91
RW-1	03/24/21	NS	NS	NS	NS	NS	NS	0.00	53.72	3,535.37
	06/08/21	NS	NS	NS	NS	NS	NS	0.00	53.78	3,535.31
	09/22/21	NS	NS	NS	NS	NS	NS	0.00	53.89	3,535.20
	12/01/21	NS	NS	NS	NS	NS	NS	0.00	51.07	3,538.02

Notes:
BOLD = Exceeds New Mexico Water Quality Commission (NMWQC) Standard
µg/L = microgram per liter
< = Not detected above indicated level
ft-bmp - feet-below measuring point
ft-msl - feet-mean sea level
NSP - Not Sampled Product
NS - Not Sampled
NA - Not Analyzed
NE - Not Established
BTEX = Benzene, Toluene, Ethylbenzene and Xylenes
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range Organics
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range Organics
BTEX analyzed by Method SW8260C
TPH-GRO analyzed by Method 8015V
TPH-DRO analyzed by Method 8015D

Table 2 Summary of Groundwater QA/QC Results for 2021
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Well No.	Date Sampled	Laboratory Analytical Results					
		Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)
NMWQC Groundwater Standards		**5**	**1000**	**700**	**620**	**NE**	**NE**
MW-5	03/24/21	<1.0	<2.0	<1.0	<2.0	<0.06	0.281
	03/24/21	<1.0	<2.0	<1.0	<2.0	<0.06	0.162
MW-5	12/01/21	<1.0	<2.0	<1.0	<2.0	<0.06	<0.147
	12/01/21	<1.0	<2.0	<1.0	<2.0	<0.06	<0.147
Trip Blank	03/24/21	<1.0	<2.0	<1.0	<1.0	<0.06	NA
Trip Blank	12/01/21	<1.0	<2.0	<1.0	<1.0	<0.06	NA

Notes:
(µg/L) = micrograms per liter
mg/L= micrograms per liter
< = Not detected above indicated level
NE - Not Estalished
NA - Not Analyzed
BTEX = Benzene, Toluene, Ethylbenzene and Xylenes
BTEX analyzed by Method EPA 8260C
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range Oganics
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range Oganics
TPH-GRO analyzed by Method 8015V
TPH-DRO analyzed by Method 8015D
Mercury analyzed by Method SW7470A
Chloride, Nitrate and Sulfate analyzed by Method E300
Bicarbonate analyzed by Method M2320B
TDS analyzed by Method M2540C
All other metals analyzed by Method SW6020A

Appendix A
Summary of Historical Fluid Levels

Appendix A Summary of Fluid Levels
HollyFrontier- Hobbs Tank 5201 - Lea County, New Mexico

Well ID/MP Elevation	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod. Thick (ft)	TD (ft-bmp)	Groundwater Elevation (ft-msl)	Corrected Groundwater Elevation[1] (ft-msl)	Totalizer (gals)
RW-1	08/07/12	48.06	51.01	2.95	58.19	3538.08	3,540.23	
3589.09	12/20/12	48.47	51.48	3.01		3537.61	3,539.81	
	06/20/13	48.89	51.65	2.76		3537.44	3,539.45	
	08/23/13	49.05	51.95	2.90		3537.14	3,539.26	0
	10/30/13					0.00	3,589.09	
	11/02/13							9.7
	11/13/13							9.9
	12/11/13	49.69	49.70	0.01		3539.39	3,539.40	10.0
	03/18/14		49.92	0.00		3539.17	3,539.17	11.1
	06/19/14	50.19	50.20	0.01		3538.89	3,538.90	13.1
	12/11/14	50.41	50.47	0.06		3538.62	3,538.66	
	03/18/15	50.60	50.73	0.13		3538.36	3,538.45	
	06/11/15	trace	50.75	0.00		3538.34	3538.34	
	08/12/15		50.93	0.00		3538.16	3,538.16	
	09/17/15		51.02	0.00		3538.07	3,538.07	
	12/17/15	trace	50.92	0.00		3538.17	3538.17	
	06/07/16		51.32	0.00		3537.77	3,537.77	
	09/26/16		50.98	0.00		3538.11	3,538.11	
	10/28/16		50.96	0.00		3538.13	3,538.13	
	12/13/16		51.46	0.00		3537.63	3,537.63	
	01/23/17		51.55	0.00		3537.54	3,537.54	
	02/20/17		51.65	0.00		3537.44	3,537.44	
	03/13/17		51.60	0.00		3537.49	3,537.49	
	04/20/17		51.61	0.00		3537.48	3,537.48	
	06/06/17		51.71	0.00		3537.38	3,537.38	
	09/20/17		51.79	0.00		3537.30	3,537.30	
	12/07/17		51.91	0.00		3537.18	3,537.18	
	01/24/18	51.99	52.04	0.05		3537.05	3,537.09	
	02/22/18		52.06	0.00		3537.03	3,537.03	
	03/14/18		52.06	0.00		3537.03	3,537.03	
	06/06/18		51.25	0.00		3537.84	3,537.84	
	09/24/18		52.48	0.00		3536.61	3,536.61	
	12/12/18		52.48	0.00		3536.61	3,536.61	
	03/12/19	52.64	52.66	0.02		3536.43	3,536.44	
	09/20/19		52.95	0.00		3536.14	3,536.14	
	12/04/19		53.10	0.00		3535.99	3,535.99	
	03/12/20		53.19	0.00		3535.90	3,535.90	
	06/16/20		53.30	0.00		3535.79	3,535.79	
	09/16/20		53.43	0.00		3535.66	3,535.66	
	12/02/20		53.76	0.00		3535.33	3,535.33	
	03/24/21		53.72	0.00		3535.37	3,535.37	
	06/08/21		53.78	0.00		3535.31	3,535.31	
	09/22/21		53.89	0.00		3535.20	3,535.20	
	12/01/21		51.07	0.00		3538.02	3,538.02	
MW-1	08/07/12	47.88	51.50	3.62	52.59	3540.55	3,543.19	
3592.05	12/20/12	48.32	51.55	3.23		3540.50	3,542.86	
	06/20/13	48.68	51.50	2.82		3540.55	3,542.61	
	10/30/13	48.96	51.53	2.57		3540.52	3,542.40	
	11/02/13	49.04	51.54	2.50		3540.51	3,542.34	
	11/13/13	49.06	51.58	2.52		3540.47	3,542.31	
	12/11/13	49.15	51.55	2.40		3540.50	3,542.25	
	06/19/14	49.65	51.59	1.94		3540.46	3,541.88	
	12/11/14	50.26	51.26	1.00		3540.79	3,541.52	
	03/18/15	50.39	51.71	1.32		3540.34	3541.30	
	06/11/15		50.66	0.00		3541.39	3541.39	
	08/12/15	50.79	51.32	0.53		3540.73	3541.12	
	09/17/15		51.12	0.00		3540.93	3540.93	
	12/17/15		50.87	0.00		3541.18	3541.18	
	06/07/16		51.22	0.00		3540.83	3540.83	
	09/26/16		50.90	0.00		3541.15	3541.15	
	10/28/16		50.92	0.00		3541.13	3541.13	
	12/13/16	51.38	51.40	0.02		3540.65	3540.66	
	01/23/17	51.49	51.52	0.03		3540.53	3540.55	
	02/20/17		51.55	0.00		3540.50	3540.50	
	03/13/17		51.58	0.00		3540.47	3540.47	
	04/20/17		51.65	0.00		3540.40	3540.40	
	06/06/17		51.72	0.00		3540.33	3540.33	
	09/20/17		51.73	0.00		3540.32	3540.32	
	12/07/17	51.83	52.03	0.20		3540.02	3540.17	
	01/24/18	51.98	52.00	0.02		3540.05	3540.06	
	02/22/18		52.52	0.00		3539.53	3539.53	
	03/14/18		52.60	0.00		3539.45	3539.45	
	06/06/18		52.20	0.00		3539.85	3539.85	
	09/24/18		52.35	0.00		3539.70	3539.70	
	12/12/18		52.37	0.00		3539.68	3539.68	
	03/12/19	52.65	52.68	0.03		3539.37	3539.39	
	09/20/19	53.00	53.08	0.08		3538.97	3539.03	
	12/04/19	53.10	53.28	0.18		3538.77	3538.90	
	03/12/20	53.10	53.17	0.07		3538.88	3538.93	
	06/16/20		53.20	0.00		3538.85	3538.85	
	09/16/20		53.19	0.00		3538.86	3538.86	
	12/02/20		53.32	0.00		3538.73	3538.73	
	03/24/21		dry	0.00		dry	dry	
	06/08/21		dry	0.00		dry	dry	
	09/22/21		dry	0.00		dry	dry	
	12/01/21		dry	0.00		dry	dry	

Appendix A Summary of Fluid Levels
HollyFrontier- Hobbs Tank 5201 - Lea County, New Mexico

Well ID/MP Elevation	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod. Thick (ft)	TD (ft-bmp)	Groundwater Elevation (ft-msl)	Corrected Groundwater Elevation[1] (ft-msl)	Totalizer (gals)
MW-2	08/07/12		47.44	0.00	52.42	3543.41		
3590.85	12/20/12		47.90	0.00		3542.95		
	06/25/13		48.27	0.00		3542.58		
	12/11/13		48.74	0.00		3542.11		
	06/19/14		49.19	0.00		3541.66		
	12/11/14		49.40	0.00		3541.45		
	03/18/15		49.63	0.00		3541.22		
	06/11/15		49.75	0.00		3541.10		
	12/16/15		49.91	0.00		3540.94		
	06/07/16		50.32	0.00		3540.53		
	12/13/16		50.34	0.00		3540.51		
	06/06/17		50.67	0.00		3540.18		
	09/20/17		50.67	0.00		3540.18		
	12/07/17		50.91	0.00		3539.94		
	03/14/18		51.00	0.00		3539.85		
	06/06/18		51.22	0.00		3539.63		
	09/24/18		51.38	0.00		3539.47		
	12/12/18		51.50	0.00		3539.35		
	03/12/19		51.62	0.00		3539.23		
	09/20/19		51.87	0.00		3538.98		
	12/04/19		51.95	0.00		3538.90		
	03/12/20		52.05	0.00		3538.80		
	06/16/20		52.16	0.00		3538.69		
	09/16/20		52.38	0.00		3538.47		
	12/02/20		52.40	0.00		3538.45		
	03/24/21		dry	0.00		dry		
	06/08/21		dry	0.00		dry		
	09/22/21		dry	0.00		dry		
	12/01/21		dry	0.00		dry		
MW-3	08/07/12		47.43	0.00	53.20	3543.38		
3590.81	12/20/12		47.87	0.00		3542.94		
	06/25/13		48.28	0.00		3542.53		
	12/11/13		48.73	0.00		3542.08		
	06/19/14		49.20	0.00		3541.61		
	12/11/14		49.41	0.00		3541.40		
	03/18/15		49.63	0.00		3541.18		
	06/11/15		49.78	0.00		3541.03		
	12/16/15		49.96	0.00		3540.85		
	06/07/16		50.33	0.00		3540.48		
	12/13/16		50.38	0.00		3540.43		
	06/06/17		50.68	0.00		3540.13		
	09/20/17		50.43	0.00		3540.38		
	12/07/17		50.91	0.00		3539.90		
	03/14/18		51.03	0.00		3539.78		
	06/06/18		51.24	0.00		3539.57		
	09/24/18		51.43	0.00		3539.38		
	12/12/18		51.55	0.00		3539.26		
	03/12/19		51.62	0.00		3539.19		
	09/20/19		51.88	0.00		3538.93		
	12/04/19		51.98	0.00		3538.83		
	03/12/20		52.10	0.00		3538.71		
	06/16/20		52.20	0.00		3538.61		
	09/16/20		52.39	0.00		3538.42		
	12/02/20		52.58	0.00		3538.23		
	03/24/21		52.70	0.00		3538.11		
	06/08/21		dry	0.00		dry		
	09/22/21		dry	0.00		dry		
	12/01/21		52.98	0.00		3537.83		
MW-4	08/07/12		47.44	0.00	62.58	3543.41		
3590.85	12/20/12		47.89	0.00		3542.96		
	06/25/13		48.27	0.00		3542.58		
	12/11/13		48.72	0.00		3542.13		
	06/19/14		49.18	0.00		3541.67		
	12/11/14		49.45	0.00		3541.40		
	03/18/15		49.61	0.00		3541.24		
	06/11/15		49.80	0.00		3541.05		
	12/16/15		49.95	0.00		3540.90		
	06/07/16		50.32	0.00		3540.53		
	12/13/16		50.38	0.00		3540.47		
	06/06/17		50.68	0.00		3540.17		
	09/20/17		50.68	0.00		3540.17		
	12/07/17		50.91	0.00		3539.94		
	03/14/18		51.02	0.00		3539.83		
	06/06/18		51.24	0.00		3539.61		
	09/24/18		51.41	0.00		3539.44		
	12/12/18		51.44	0.00		3539.41		
	03/12/19		51.59	0.00		3539.26		
	09/20/19		51.92	0.00		3538.93		
	12/04/19		51.95	0.00		3538.90		
	03/12/20		52.06	0.00		3538.79		
	06/16/20		52.17	0.00		3538.68		
	09/16/20		52.32	0.00		3538.53		
	12/02/20		52.49	0.00		3538.36		
	03/24/21		52.66	0.00		3538.19		
	06/08/21		52.81	0.00		3538.04		
	09/22/21		52.94	0.00		3537.91		
	12/01/21		53.27	0.00		3537.58		

Appendix A Summary of Fluid Levels
HollyFrontier- Hobbs Tank 5201 - Lea County, New Mexico

Well ID/MP Elevation	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod. Thick (ft)	TD (ft-bmp)	Groundwater Elevation (ft-msl)	Corrected Groundwater Elevation[1] (ft-msl)	Totalizer (gals)
MW-5	08/07/12		48.83	0.00	58.82	3543.92		
3592.75	12/20/12		49.26	0.00		3543.49		
	06/25/13		49.64	0.00		3543.11		
	12/11/13		50.09	0.00		3542.66		
	06/19/14		50.53	0.00		3542.22		
	12/11/14		50.76	0.00		3541.99		
	03/18/15		50.99	0.00		3541.76		
	06/11/15		51.12	0.00		3541.63		
	12/17/15		51.33	0.00		3541.42		
	06/07/16		51.68	0.00		3541.07		
	12/13/16		51.76	0.00		3540.99		
	06/06/17		52.08	0.00		3540.67		
	09/20/17		52.07	0.00		3540.68		
	12/07/17		52.30	0.00		3540.45		
	03/14/18		52.38	0.00		3540.37		
	06/06/18		52.58	0.00		3540.17		
	09/24/18		52.50	0.00		3540.25		
	12/12/18		52.54	0.00		3540.21		
	03/12/19		52.97	0.00		3539.78		
	09/20/19		53.22	0.00		3539.53		
	12/04/19		53.34	0.00		3539.41		
	03/12/20		53.40	0.00		3539.35		
	06/16/20		53.58	0.00		3539.17		
	09/16/20		53.69	0.00		3539.06		
	12/02/20		53.91	0.00		3538.84		
	03/24/21		54.05	0.00		3538.70		
	06/08/21		54.25	0.00		3538.50		
	09/22/21		54.29	0.00		3538.46		
	12/01/21		54.51	0.00		3538.24		
HTRW-1	06/25/13	45.27	45.28	0.01	60.10	3542.86	3,542.87	
3588.14	12/11/13	45.78	45.79	0.01		3542.35	3,542.36	
	06/19/14		46.19	0.00		3541.95	3,541.95	
	12/11/14	45.46	45.51	0.05		3542.63	3,542.67	
	03/18/15	46.64	46.66	0.02		3541.48	3,541.49	
	06/11/15	46.81	47.61	0.80		3540.53	3,541.11	
	08/12/15		46.91	0.00		3541.23	3,541.23	
	09/17/15		46.98	0.00		3541.16	3,541.16	
	12/17/15	46.93	46.95	0.02		3541.19	3,541.20	
	06/07/16		46.34	0.00		3541.80	3,541.80	
	09/26/16		46.97	0.00		3541.17	3,541.17	
	10/28/16	46.94	46.95	0.01		3541.19	3,541.20	
	12/13/16		47.44	0.00		3540.70	3,540.70	
	01/23/17		47.58	0.00		3540.56	3,540.56	
	02/20/17		47.68	0.00		3540.46	3,540.46	
	03/13/17		47.62	0.00		3540.52	3,540.52	
	04/20/17		47.67	0.00		3540.47	3,540.47	
	06/06/17		47.71	0.00		3540.43	3,540.43	
	09/20/17		47.72	0.00		3540.42	3,540.42	
	12/07/17		NM	NM		NM	NM	
	01/24/18		48.04	0.00		3540.10	3,540.10	
	02/22/18		48.08	0.00		3540.06	3,540.06	
	03/14/18		48.03	0.00		3540.11	3,540.11	
	06/06/18		48.22	0.00		3539.92	3,539.92	
	09/24/18		48.45	0.00		3539.69	3,539.69	
	12/12/18		48.99	0.00		3539.15	3,539.15	
	03/12/19		48.70	0.00		3539.44	3,539.44	
	09/20/19		48.97	0.00		3539.17	3,539.17	
	12/04/19		48.97	0.00		3539.17	3,539.17	
	03/12/20		49.09	0.00		3539.05	3,539.05	
	06/16/20		49.20	0.00		3538.94	3,538.94	
	09/16/20		49.38	0.00		3538.76	3,538.76	
	12/02/20		49.56	0.00		3538.58	3,538.58	
	03/24/21		49.72	0.00		3538.42	3,538.42	
	06/08/21		49.90	0.00		3538.24	3,538.24	
	09/22/21		50.00	0.00		3538.14	3,538.14	
	12/01/21		50.22	0.00		3537.92	3,537.92	

Appendix A Summary of Fluid Levels
HollyFrontier- Hobbs Tank 5201 - Lea County, New Mexico

Well ID/MP Elevation	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod. Thick (ft)	TD (ft-bmp)	Groundwater Elevation (ft-msl)	Corrected Groundwater Elevation[1] (ft-msl)	Totalizer (gals)
HTRW-2	06/25/13		44.60	0.00	60.14	3542.91		
3587.51	12/11/13		45.05	0.00		3542.46		
	06/19/14		45.52	0.00		3541.99		
	12/11/14		45.79	0.00		3541.72		
	03/18/15		45.95	0.00		3541.56		
	06/11/15		46.05	0.00		3541.46		
	08/12/15		46.22	0.00		3541.29		
	09/17/15		46.30	0.00		3541.21		
	12/17/15		46.25	0.00		3541.26		
	06/07/16		46.66	0.00		3540.85		
	09/26/16		46.20	0.00		3541.31		
	10/28/16		46.18	0.00		3541.33		
	12/13/16		46.74	0.00		3540.77		
	01/23/17		46.90	0.00		3540.61		
	02/20/17		46.88	0.00		3540.63		
	03/13/17		46.93	0.00		3540.58		
	04/20/17		46.96	0.00		3540.55		
	06/06/17		47.03	0.00		3540.48		
	09/20/17		47.08	0.00		3540.43		
	12/07/17		47.25	0.00		3540.26		
	01/24/18		48.68	0.00		3538.83		
	02/22/18		47.38	0.00		3540.13		
	03/14/18		48.42	0.00		3539.09		
	06/06/18		47.56	0.00		3539.95		
	09/24/18		47.77	0.00		3539.74		
	12/12/18		47.79	0.00		3539.72		
	03/12/19		48.01	0.00		3539.50		
	09/20/19		48.28	0.00		3539.23		
	12/04/19		48.35	0.00		3539.16		
	03/12/20		48.47	0.00		3539.04		
	06/16/20		48.59	0.00		3538.92		
	09/16/20		48.68	0.00		3538.83		
	12/02/20		48.89	0.00		3538.62		
	03/24/21		49.10	0.00		3538.41		
	06/08/21		49.23	0.00		3538.28		
	09/22/21		49.34	0.00		3538.17		
	12/01/21		49.56	0.00		3537.95		

Appendix A Summary of Fluid Levels
HollyFrontier- Hobbs Tank 5201 - Lea County, New Mexico

Well ID/MP Elevation	Date	DTP (ft-bmp)	DTW (ft-bmp)	Prod. Thick (ft)	TD (ft-bmp)	Groundwater Elevation (ft-msl)	Corrected Groundwater Elevation[1] (ft-msl)	Totalizer (gals)
HTRW-3	06/25/13	45.87	45.88	0.01	60.14	3542.87	3,542.88	
3588.75	12/11/13	46.32	46.33	0.01		3542.42	3,542.43	
	06/19/14		46.79	0.00		3541.96	3,541.96	
	12/11/14		47.03	0.00		3541.72	3,541.72	
	03/18/15	47.19	47.50	0.31		3541.25	3,541.48	
	06/11/15	47.35	47.61	0.26		3541.14	3,541.33	
	08/12/15		47.60	0.00		3541.15	3,541.15	
	09/17/15	47.47	48.38	0.91		3540.37	3,541.03	
	12/17/15	47.30	49.00	1.70		3539.75	3,540.99	
	06/07/16	47.81	47.84	0.03		3540.91	3,540.93	
	09/26/16	47.48	47.60	0.12		3541.15	3,541.24	
	10/28/16	47.46	47.55	0.09		3541.20	3,541.27	
	12/13/16	47.97	48.48	0.51		3540.27	3,540.64	
	01/23/17	48.10	48.55	0.45		3540.20	3,540.53	
	02/20/17	48.28	48.50	0.22		3540.25	3,540.41	
	03/13/17	48.20	48.35	0.15		3540.40	3,540.51	
	04/20/17	48.22	48.31	0.09		3540.44	3,540.51	
	05/19/17	48.24	48.30	0.06		3540.45	3,540.49	
	06/06/17	48.31	48.35	0.04		3540.40	3,540.43	
	09/20/17	48.31	48.36	0.05		3540.39	3,540.43	
	12/07/17	48.60	49.35	0.75		3539.40	3,539.95	
	01/24/18	48.54	49.04	0.50		3539.71	3,540.08	
	02/22/18	48.68	48.75	0.07		3540.00	3,540.05	
	03/14/18		48.68	0.00		3540.07	3,540.07	
	06/06/18		48.88	0.00		3539.87	3,539.87	
	09/24/18	49.08	49.18	0.10		3539.57	3,539.64	
	12/12/18	48.08	48.13	0.05		3540.62	3,540.66	
	03/12/19	49.29	49.35	0.06		3539.40	3,539.44	
	09/20/19		49.60	0.00		3539.15	3,539.15	
	12/04/19		49.75	0.00		3539.00	3,539.00	
	03/12/20		49.89	0.00		3538.86	3,538.86	
	06/16/20	49.90	49.92	0.02		3538.83	3,538.84	
	09/16/20		50.08	0.00		3538.67	3,538.67	
	12/02/20		50.24	0.00		3538.51	3,538.51	
	03/24/21		50.32	0.00		3538.43	3,538.43	
	06/08/21		50.46	0.00		3538.29	3,538.29	
	09/22/21		50.55	0.00		3538.20	3,538.20	
	12/01/21		50.81	0.00		3537.94	3,537.94	
HTRW-4	06/25/13		45.68	0.00	60.16	3542.89		
3588.57	12/11/13		46.13	0.00		3542.44		
	06/19/14		46.59	0.00		3541.98		
	12/11/14		46.85	0.00		3541.72		
	03/18/15		47.03	0.00		3541.54		
	06/11/15		47.11	0.00		3541.46		
	08/12/15		47.31	0.00		3541.26		
	09/17/15		47.35	0.00		3541.22		
	12/17/15		47.32	0.00		3541.25		
	06/07/16		47.70	0.00		3540.87		
	09/26/16		47.58	0.00		3540.99		
	10/28/16		47.55	0.00		3541.02		
	12/13/16		47.79	0.00		3540.78		
	01/23/17		47.95	0.00		3540.62		
	02/20/17		47.97	0.00		3540.60		
	03/13/17		47.98	0.00		3540.59		
	04/20/17		48.03	0.00		3540.54		
	06/06/17		48.09	0.00		3540.48		
	09/20/17		48.19	0.00		3540.38		
	12/07/17		48.30	0.00		3540.27		
	01/24/18		48.40	0.00		3540.17		
	02/22/18		48.43	0.00		3540.14		
	03/14/18		48.58	0.00		3539.99		
	06/06/18		48.64	0.00		3539.93		
	09/24/18		48.78	0.00		3539.79		
	12/12/18		48.48	0.00		3540.09		
	03/12/19		49.05	0.00		3539.52		
	09/20/19		49.38	0.00		3539.19		
	12/04/19		49.92	0.00		3538.65		
	03/12/20		49.55	0.00		3539.02		
	06/16/20		49.68	0.00		3538.89		
	09/16/20		49.82	0.00		3538.75		
	12/02/20		50.01	0.00		3538.56		
	03/24/21		50.11	0.00		3538.46		
	06/08/21		50.35	0.00		3538.22		
	09/22/21		50.38	0.00		3538.19		
	12/01/21		50.66	0.00		3537.91		

Notes:
DTP - depth to product
DTW - depth to water
TD - total depth
ft - feet
ft-bmp - feet-below measuring point
ft-msl - feet-mean sea level
gals - gallons
[1] groundwater elevation corrected for 0.73 specific gavity

Appendix B
Summary of Historical Groundwater Analytical Results and Field Parameters

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
MW-2	08/23/04	26	4	5	14	49	NA	NA	0.00	43.45	3,547.40					
3590.85	01/11/05	72	<2	<2	15	87	NA	NA	0.00	43.02	3,547.83					
	03/08/06	<2	<2	<2	<6	<2	NA	NA	0.00	43.44	3,547.41					
	07/11/06	7.0	<2	<2	16	23	NA	NA	0.00	43.69	3,547.16					
	09/07/06	4.2	1.9	<0.5	3.2	9.3	NA	NA	0.00	43.64	3,547.21					
	12/19/06	2.1	1.0	0.9	4.3	8.3	NA	NA	0.00	43.83	3,547.02					
	03/13/07	<0.5	0.6	1.2	2.3	4.1	NA	NA	0.00	44.04	3,546.81					
	06/21/07	0.8	0.7	<0.5	3.8	5.3	NA	NA	0.00	44.11	3,546.74					
	09/21/07	1.4	1.1	<0.5	3.2	5.7	NA	NA	0.00	43.87	3,546.98					
	12/07/07	1.4	1.0	0.9	3.5	6.8	NA	NA	0.00	44.17	3,546.68					
	03/04/08	1.4	0.8	1.8	3.3	7.3	NA	NA	0.00	44.27	3,546.58					
	06/03/08	1.7	0.9	1.5	2.1	6.2	NA	NA	0.00	44.42	3,546.43					
	09/23/08	1.2	<0.5	0.6	3.8	5.6	NA	NA	0.00	44.69	3,546.16					
	12/18/08	1.0	0.8	<0.5	1.2	3.0	NA	NA	0.00	45.82	3,545.03					
	03/16/09	0.9	0.7	<0.5	2.9	4.5	NA	NA	0.00	44.98	3,545.87					
	06/23/09	1.2	<1.0	<1.0	<2.0	1.2	NA	NA	0.00	45.12	3,545.73					
	09/08/09	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.29	3,545.56					
	12/17/09	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.50	3,545.35					
	03/09/10	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	0.00	45.70	3,545.15					
	06/16/10	<1.0	<1.0	<1.0	2.5	2.5	NA	NA	0.00	45.85	3,545.00					
	09/01/10	1.0	<1.0	<1.0	<2.0	1.0	NA	NA	0.00	45.82	3,545.03					
	12/06/10	1.6	<1.0	<1.0	<2.0	1.6	NA	NA	0.00	46.05	3,544.80					
	03/18/11	1.3	<1.0	14	2.9	18.2	NA	NA	0.00	46.18	3,544.67					
	06/23/11	1.1	<1.0	26	3.2	30.3	NA	NA	0.00	46.40	3,544.45					
	10/07/11	1.2	<1.0	14	<2.0	15.2	NA	NA	0.00	46.75	3,544.10					
	12/08/11	1.4	<1.0	5.7	3.6	10.7	NA	NA	0.00	46.91	3,543.94					
	08/07/12	<1.0	< 5.0	< 5.0	< 15	< 15	NA	NA	0.00	47.44	3,543.41	30.34	1.615	0.05	6.48	-125.9
	12/20/12	<1.0	<2.0	<1.0	<2.0	<1.0	NA	NA	0.00	47.90	3,542.95	17.51	1.094	0.74	6.85	-254.0
	06/25/13	<1.0	<2.0	<1.0	<2.0	<1.0	NA	NA	0.00	48.27	3,542.58	22.10	1.249	0.30	6.76	-60.6
	12/11/13	1.02	<2.0	<1.0	<2.0	<1.0	NA	NA	0.00	48.74	3,542.11	21.11	1.27	1.51	7.14	-117.0
	06/25/14	<1.0	<2.0	<1.0	1.43		NA	NA	0.00	49.19	3,541.66	19.94	1.078	1.19	6.89	-66.5
	12/11/14	<1.0	<2.0	<1.0	<1.0		<0.50	0.534	0.00	49.40	3,541.45	18.67	1.192	0.58	6.60	-102.3
	06/11/15	<1.0	<2.0	<1.0	<1.0		<0.10	0.337	0.00	49.75	3,541.10	35.49	1.265	2.20	6.75	-100.1
	12/16/15	<1.0	<2.0	<1.0	<1.0		0.141	0.678	0.00	49.91	3,540.94	18.56	1.274	0.75	6.94	-76.7
	06/09/16	<1.0	<2.0	<1.0	<1.0		<0.06	5.53	0.00	50.32	3,540.53	20.52	4.885	2.80	6.63	29.0
	12/14/16	<1.0	<2.0	<1.0	<1.0		0.097	5.53	0.00	50.34	3,540.51	18.90	2.171	2.37	7.61	-72.8
	06/06/17	<1.0	<2.0	<1.0	<2.0		0.105	4.98	0.00	50.67	3,540.18	22.15	1.549	1.85	6.85	-55.9
	09/19/17	<1.0	<2.0	<1.0	<2.0		0.093	2.74	0.00	50.67	3,540.18	22.80	1.627	0.96	6.71	-71.3
	12/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.795	0.00	50.91	3,539.94	19.01	2.887	1.21	7.01	-44.3
	03/14/18	<1.0	<2.0	<1.0	<2.0		0.101	1.91	0.00	51.00	3,539.85	21,11	1.403	0.98	6.87	-13.3
	06/05/18	<1.0	<2.0	<1.0	<2.0		0.140	1.89	0.00	51.22	3,539.63	22.85	1.787	1.07	6.93	-56.2
	09/24/18	<1.0	<2.0	<1.0	<2.0		<0.06	2.33	0.00	51.38	3,539.47	22.55	2.011	1.57	7.16	-33.6
	12/12/18	<1.0	<2.0	<1.0	<2.0		<0.06	2.56	0.00	51.50	3,539.35	19.83	2.334	1.33	7.22	-39.0
	03/12/19	<1.0	<2.0	<1.0	<2.0		0.091	NA	0.00	51.62	3,539.23	20.04	1.906	1.04	7.07	-60.8
	09/20/19	<1.0	<2.0	<1.0	<2.0		<0.06	NA	0.00	51.87	3,538.98	21.66	2.112	1.26	6.96	-26.3
	12/04/19	<1.0	<2.0	<1.0	<2.0		<0.06	NA	0.00	51.95	3,538.90	19.92	1.883	1.11	7.12	-45.6
	03/12/20	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	52.05	3,538.80	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	06/16/20	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	52.16	3,538.69	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	09/16/20	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	52.38	3,538.47	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	12/02/20	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	52.40	3,538.45	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	03/24/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	06/08/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	09/22/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	12/01/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
MW-3	08/23/04	<2	<2	<2	<6	<2	NA	NA	0.00	43.50	3,547.31					
3590.81	01/11/05	<2	<2	<2	<6	<2	NA	NA	0.00	42.93	3,547.88					
	03/08/06	<2	<2	<2	<6	<2	NA	NA	0.00	43.35	3,547.46					
	07/11/06	<2	<2	<2	<6	<2	NA	NA	0.00	43.63	3,547.18					
	09/07/06	<0.5	<0.5	<0.5	<1	<0.5	NA	NA	0.00	43.61	3,547.20					
	12/19/06	<0.5	<0.5	<0.5	<1	<0.5	NA	NA	0.00	43.76	3,547.05					
	03/13/07	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	43.97	3,546.84					
	06/21/07	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.03	3,546.78					
	09/21/07	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	43.83	3,546.98					
	12/07/07	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.11	3,546.70					
	03/04/08	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.32	3,546.49					
	06/03/08	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.35	3,546.46					
	09/23/08	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.65	3,546.16					
	12/18/08	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.77	3,546.04					
	03/16/09	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	0.00	44.92	3,545.89					
	06/23/09	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.08	3,545.73					
	09/08/09	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.24	3,545.57					
	12/17/09	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.44	3,545.37					
	03/09/10	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	0.00	45.66	3,545.15					
	06/16/10	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.80	3,545.01					
	09/01/10	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.80	3,545.01					
	12/06/10	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.00	3,544.81					
	03/18/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.14	3,544.67					
	06/23/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.38	3,544.43					
	10/07/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.72	3,544.09					
	12/08/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.87	3,543.94					
	08/07/12	< 5.0	< 5.0	< 5.0	< 15	< 15	NA	NA	0.00	47.43	3,543.38	30.29	1.875	0.72	5.80	109.3
	12/20/12	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	47.87	3,542.94	17.39	1.108	1.28	6.87	-269.0
duplicate	12/20/12	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	47.87	3,542.94	17.39	1.108	1.28	6.87	-269.0
	06/25/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	48.28	3,542.53	20.80	1.453	1.98	6.60	204.9
	12/11/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	48.73	3,542.08	19.80	1.540	4.40	6.76	152.0
duplicate	12/11/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	48.73	3,542.08	19.80	1.540	4.40	6.76	152.0
	06/24/14	<1.0	<2.0	<1.0	1.61		NA	NA	0.00	49.20	3,541.61	22.28	1.242	2.94	6.78	0.2
	12/11/14	<1.0	<2.0	<1.0	<1.0		<0.10	0.135	0.00	49.41	3,541.40	17.74	1.196	2.51	6.66	69.0
	06/11/15	<1.0	<2.0	<1.0	<1.0		<0.10	<0.10	0.00	49.78	3,541.03	24.41	1.240	1.10	6.63	27.7
	12/16/15	<1.0	<2.0	<1.0	<1.0		<0.10	<0.102	0.00	49.96	3,540.85	16.75	1.229	2.22	6.86	126.0
	06/09/16	<1.0	<2.0	<1.0	<1.0		<0.06	<0.08	0.00	50.33	3,540.48	25.68	1.227	2.17	7.79	36.8
	12/14/16	<1.0	<2.0	<1.0	<1.0		<0.06	0.262	0.00	50.38	3,540.43	19.92	1.767	2.16	7.61	46.7
	06/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.358	0.00	50.68	3,540.13	23.66	1.109	3.80	6.93	64.5
	09/19/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.122	0.00	50.43	3,540.38	19.70	1.213	1.87	6.66	137.8
	12/06/17	<1.0	<2.0	<1.0	<2.0		0.073	0.668	0.00	50.91	3,539.90	17.60	1.102	1.62	6.79	76.5
	03/14/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.184	0.00	51.03	3,539.78	20.30	1.206	1.97	7.01	89.3
	06/05/18	<1.0	<2.0	<1.0	<2.0		0.100	0.221	0.00	51.24	3,539.57	24.89	1.369	2.69	6.92	111.2
	09/24/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.220	0.00	51.43	3,539.38	22.96	1.308	2.07	7.18	102.3
	12/12/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.224	0.00	51.55	3,539.26	20.13	1.198	1.85	6.88	91.2
	03/12/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.164	0.00	51.62	3,539.19	20.65	1.306	1.98	7.12	110.0
	09/20/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.225	0.00	51.88	3,538.93	21.87	1.398	2.11	7.44	88.6
	12/04/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.203	0.00	51.98	3,538.83	19.92	1.265	1.89	7.59	101.6
	03/12/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.190	0.00	52.10	3,538.71	20.86	1.065	2.02	7.02	78.7
	06/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.151	0.00	52.20	3,538.61	23.88	1.309	2.88	7.33	99.2
	09/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.222	0.00	52.39	3,538.42	22.64	1.562	1.76	7.24	120.6
	12/02/20	<1.0	<2.0	<1.0	<2.0		<0.06	NA	0.00	52.58	3,538.23	20.03	1.112	1.85	7.12	110.6
	03/24/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	06/08/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	09/22/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry
	12/01/21	NS-Dry	NS-Dry	NS-Dry	NS-Dry		NS-Dry	NS-Dry	0.00	dry	dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry	NS-Dry

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
MW-4	06/16/10	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	45.82	3,545.03					
3590.85	09/01/10	3.3	<1.0	<1.0	<2.0	3.3	NA	NA	0.00	45.81	3,545.04					
	12/06/10	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.01	3,544.84					
	03/18/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.16	3,544.69					
	06/23/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.40	3,544.45					
	10/07/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.74	3,544.11					
	12/08/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	46.88	3,543.97					
	08/07/12	< 5.0	< 5.0	< 5.0	< 15	< 15	NA	NA	0.00	47.44	3,543.41	28.73	1.457	0.12	6.45	1.3
	12/20/12	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	47.89	3,542.96	18.18	1.149	0.61	6.83	-238.0
	06/25/13	<1.0	<2.0	<1.0	<2.0	<1.0	NA	NA	0.00	48.27	3,542.58	21.30	1.306	0.14	6.70	129.8
	12/11/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	48.72	3,542.13	20.75	1.32	1.26	7.20	-2.0
	06/24/14	1.07	<2.0	<1.0	<1.0		NA	NA	0.00	49.18	3,541.67	22.22	1.168	1.07	6.75	-13.3
	12/11/14	<1.0	<2.0	<1.0	<1.0		<0.10	1.72	0.00	49.45	3,541.40	18.59	8.387	0.15	6.35	64.5
	06/11/15	<1.0	<2.0	<1.0	<1.0		<0.10	2.81	0.00	49.80	3,541.05	28.13	8.394	3.14	6.61	44.6
duplicate	06/11/15	<1.0	<2.0	<1.0	<1.0		<0.10	2.51	0.00	49.80	3,541.05	28.13	8.394	3.14	6.61	44.6
	12/16/15	<1.0	<2.0	<1.0	<1.0		<0.10	2.66	0.00	49.95	3,540.90	18.80	6.176	0.60	6.91	86.2
	06/09/16	<1.0	<2.0	<1.0	<1.0		<0.06	3.22	0.00	50.32	3,540.53	27.40	2.949	2.59	6.99	1.6
	12/14/16	<1.0	<2.0	<1.0	<1.0		<0.06	2.37	0.00	50.38	3,540.47	19.14	4.317	2.29	7.74	53.1
duplicate	12/14/16	<1.0	<2.0	<1.0	<1.0		<0.06	2.02	0.00	50.38	3,540.47	19.14	4.317	2.29	7.74	53.1
	06/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	1.50	0.00	50.68	3,540.17	22.60	1.68	0.42	6.98	71.9
	09/19/17	<1.0	<2.0	<1.0	<2.0		<0.06	1.73	0.00	50.68	3,540.17	21.70	2.014	1.94	6.91	23.5
	12/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	1.79	0.00	50.91	3,539.94	18.10	1.751	0.89	7.16	11.3
	03/14/18	3.31	<2.0	<1.0	<2.0		<0.06	0.357	0.00	51.02	3,539.83	20.60	2.342	1.23	6.77	55.4
	06/05/18	<1.0	<2.0	<1.0	<2.0		0.092	0.329	0.00	51.24	3,539.61	24.50	2.867	2.65	6.82	68.6
	09/24/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.200	0.00	51.41	3,539.44	23.65	2.436	1.86	7.04	75.6
	12/12/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.098	0.00	51.44	3,539.41	19.26	1.982	1.21	6.94	29.2
	03/12/19	<1.0	<2.0	<1.0	<2.0		0.061	0.101	0.00	51.59	3,539.26	20.88	2.467	1.77	7.06	56.0
	09/20/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.183	0.00	51.92	3,538.93	23.67	2,223	2.43	6.98	42.3
	12/04/19	<1.0	<2.0	<1.0	<2.0		<0.06	<0.150	0.00	51.95	3,538.90	20.11	2.116	1.63	7.11	32.0
	03/12/20	<1.0	<2.0	<1.0	<2.0		<0.06	<0.146	0.00	52.06	3,538.79	21.60	2.228	1.92	6.89	43.6
	06/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	<0.147	0.00	52.17	3,538.68	23.66	2.549	2.11	7.21	65.6
	09/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	<0.149	0.00	52.32	3,538.53	22.96	2.011	2.06	7.01	43.8
	12/02/20	<1.0	<2.0	<1.0	<2.0		<0.06	<0.151	0.00	52.49	3,538.36	21.04	2.198	1.88	6.92	65.4
	03/24/21	<1.0	<2.0	<1.0	<2.0		<0.06	<0.151	0.00	52.66	3,538.19	20.35	3.445	2.33	7.16	76.4
	06/08/21	NS	NS	NS	NS		NS	NS	0.00	52.81	3,538.04	NS	NS	NS	NS	NS
	09/22/21	NS	NS	NS	NS		NS	NS	0.00	52.94	3,537.91	NS	NS	NS	NS	NS
	12/01/21	<1.0	<2.0	<1.0	<2.0		<0.06	0.179	0.00	53.27	3,537.58	19.88	3.226	2.10	7.16	88.4

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
MW-5	03/18/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	47.61	3,545.14					
3592.75	06/23/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	47.83	3,544.92					
	10/07/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	48.17	3,544.58					
	12/08/11	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	0.00	48.31	3,544.44					
	08/07/12	< 5.0	< 5.0	< 5.0	<15	< 15	NA	NA	0.00	48.83	3,543.92	27.30	0.775	4.84	6.01	115.9
	12/20/12	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	49.26	3,543.49	17.49	0.633	4.70	7.04	-187.0
	06/25/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	49.64	3,543.11	22.20	0.848	4.60	6.63	181.1
	12/11/13	<1.0	<2.0	<1.0	<2.0	<2.0	NA	NA	0.00	50.09	3,542.66	19.35	0.801	4.79	7.37	86.0
	06/25/14	<1.0	<2.0	<1.0	1.13		NA	NA	0.00	50.53	3,542.22	20.39	0.782	3.54	6.91	39.2
	12/11/14	<1.0	<2.0	<1.0	<1.0		<0.10	<0.102	0.00	50.76	3,541.99	18.61	0.888	6.35	6.11	103.6
	06/11/15	<1.0	<2.0	<1.0	<1.0		<0.10	<0.10	0.00	51.12	3,541.63	29.58	0.882	6.63	6.72	40.4
	12/16/15	<1.0	<2.0	<1.0	<1.0		<0.10	0.115	0.00	51.33	3,541.42	17.09	0.910	5.79	7.16	129.1
	06/09/16	<1.0	<2.0	<1.0	<1.0		<0.06	<0.08	0.00	51.68	3,541.07	26.69	1.099	6.03	6.55	59.9
	12/14/16	<1.0	<2.0	<1.0	<1.0		<0.06	0.194	0.00	51.76	3,540.99	19.03	1.361	5.93	7.72	79.5
	06/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.162	0.00	52.08	3,540.67	19.10	0.905	5.75	6.78	127.2
	09/19/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.132	0.00	52.07	3,540.68	20.70	1.001	4.04	6.81	59.8
	12/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.425	0.00	52.30	3,540.45	17.90	0.768	3.92	7.08	33.2
duplicate	12/06/17	<1.0	<2.0	<1.0	<2.0		<0.06	0.467	0.00	52.30	3,540.45	17.90	0.768	3.92	7.08	33.2
	03/14/18	<1.0	<2.0	<1.0	<2.0		<0.06	<0.0756	0.00	52.38	3,540.37	20.10	0.901	4.11	6.76	65.4
	06/05/18	<1.0	<2.0	<1.0	<2.0		0.081	0.155	0.00	52.58	3,540.17	25.60	1.162	4.76	6.96	123.0
duplicate	06/05/18	<1.0	<2.0	<1.0	<2.0		0.097	0.137	0.00	52.58	3,540.17	25.60	1.162	4.76	6.96	123.0
	09/24/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.111	0.00	52.50	3,540.25	24.66	0.913	3.88	7.24	102.2
duplicate	09/24/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.136	0.00	52.50	3,540.25	24.66	0.913	3.88	7.24	102.2
	12/12/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.157	0.00	52.54	3,540.21	18.87	1.012	4.23	7.11	55.6
duplicate	12/12/18	<1.0	<2.0	<1.0	<2.0		<0.06	0.148	0.00	52.54	3,540.21	18.87	1.012	4.23	7.11	55.6
	03/12/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.178	0.00	52.97	3,539.78	20.18	1.123	3.65	7.02	88.0
duplicate	03/12/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.157	0.00	52.97	3,539.78	20.18	1.123	3.65	7.02	88.0
	09/20/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.223	0.00	53.22	3,539.53	23.98	0.889	4.11	7.16	112.0
duplicate	09/20/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.230	0.00	53.22	3,539.53	23.98	0.889	4.11	7.16	112.0
	12/04/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.171	0.00	53.34	3,539.41	20.18	0.987	3.97	7.02	99.6
duplicate	12/04/19	<1.0	<2.0	<1.0	<2.0		<0.06	0.168	0.00	53.34	3,539.41	20.18	0.987	3.97	7.02	99.6
	03/12/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.235	0.00	53.40	3,539.35	21.20	1.115	4.01	7.11	102.0
duplicate	03/12/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.190	0.00	53.40	3,539.35	21.20	1.115	4.01	7.11	102.0
	06/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	<0.148	0.00	53.58	3,539.17	23.40	1.233	4.26	6.92	123.0
duplicate	06/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.166	0.00	53.58	3,539.17	23.40	1.233	4.26	6.92	123.0
	09/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.156	0.00	53.69	3,539.06	21.96	1.002	3.84	7.27	89.6
duplicate	09/16/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.173	0.00	53.69	3,539.06	21.96	1.002	3.84	7.27	89.6
	12/02/20	<1.0	<2.0	<1.0	<2.0		<0.06	0.178	0.00	53.91	3,538.84	20.86	1.246	2.96	7.08	112.0
	03/24/21	<1.0	<2.0	<1.0	<2.0		<0.06	0.281	0.00	54.05	3,538.70	21.22	1.388	3.03	7.03	98.7
duplicate	03/24/21	<1.0	<2.0	<1.0	<2.0		<0.06	0.162	0.00	54.05	3,538.70	21.22	1.388	3.03	7.03	98.7
	06/08/21	NS	NS	NS	NS		NS	NS	0.00	54.25	3,538.50	NS	NS	NS	NS	NS
	09/22/21	NS	NS	NS	NS		NS	NS	0.00	54.29	3,538.46	NS	NS	NS	NS	NS
	12/01/21	<1.0	<2.0	<1.0	<2.0		<0.06	<0.147	0.00	54.51	3,538.24	20.86	0.998	3.24	7.18	119.0
duplicate	12/01/21	<1.0	<2.0	<1.0	<2.0		<0.06	<0.147	0.00	54.51	3,538.24	20.86	0.998	3.24	7.18	119.0

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
HTRW-1	06/25/13	NSP	NSP	NSP	NSP	NSP	NA	NA	0.00	45.28	3,542.87					
3588.14	12/11/13	NSP	NSP	NSP	NSP	NSP	NA	NA	0.01	45.79	3,542.36					
	6/24/14	**910**	48.7	89.1	70.0		NA	NA	0.01	46.19	3,541.95	21.90	1.533	1.37	6.77	-108.5
duplicate	6/24/14	**922**	49.0	88.8	69.2		NA	NA	0.00	46.19	3,541.95	21.90	1.533	1.37	6.77	-108.5
	12/11/14	NSP	NSP	NSP	NSP		NSP	NSP	0.05	45.51	3,542.67	NSP	NSP	NSP	NSP	NSP
	06/11/15	NSP	NSP	NSP	NSP		NSP	NSP	0.80	47.61	3,541.11	NSP	NSP	NSP	NSP	NSP
	12/16/15	NSP	NSP	NSP	NSP		NSP	NSP	0.02	46.95	3,541.20	NSP	NSP	NSP	NSP	NSP
	06/09/16	NSP	NSP	NSP	NSP		NSP	NSP	0.00	46.34	3,541.80	NM	NM	NM	NM	NM
	12/14/16	1.97	<0.6	<0.3	0.943		<0.06	0.432	0.00	47.44	3,540.70	19.34	1.72	2.34	7.58	60.8
	06/06/17	**774**	21.9	1.90	57.6		1.85	0.549	0.00	47.71	3,540.43	21.12	1.014	1.71	6.91	71.7
duplicate	06/06/17	**694**	13.8	1.37	47.2		1.43	1.49	0.00	47.71	3,540.43	21.12	1.014	1.71	6.91	71.7
	09/19/17	**1620**	76.1	17.1	82.6		2.88	1.23	0.00	47.72	3,540.42	21.7	0.693	1.7	6.93	-45.4
	12/06/17	NS	NS	NS	NS	NS	NS	NS	0.00			18.9	1.001	2.01	6.92	33.2
	03/14/18	**102**	<2.0	<1.0	8.16		0.360	<0.0754	0.00	48.03	3,540.10	20.6	0.892	1.92	7.23	-11.5
	06/05/18	**163**	40.0	2.03	34.2		1.40	2.17	0.00	48.22	3,540.06	22.1	0.989	1.87	6.89	22.3
	09/24/18	**11.4**	2.78	<3.0	0.564		0.109	0.406	0.00	48.45	3,540.11	21.6	1.106	1.98	6.92	11.6
	12/12/18	**377**	20.5	1.07	20.7		1.15	0.240	0.00	48.99	3,539.15	19.03	0.979	2.12	7.01	22.9
	03/12/19	**28.8**	2.6	<3.0	3.48		0.139	0.154	0.00	48.70	3,539.44	20.8	0.979	2.04	7.18	10.6
	09/20/19	**42.4**	3.07	0.413	3.84		0.318	0.263	0.00	48.97	3,539.17	21.6	0.889	1.96	6.98	-22
	12/04/19	**57.5**	5.82	0.559	8.27		0.118	<0.148	0.00	48.97	3,539.17	19.2	1.021	1.88	7.01	9.66
	03/12/20	2.28	<2.0	<1.0	<2.0		<0.06	0.222	0.00	49.09	3,539.05	20.6	0.926	1.92	7.26	60.5
	06/16/20	**70.6**	11.0	0.960	4.46		0.116	0.288	0.00	49.20	3,538.94	23.4	1.115	2.01	7.33	44.6
	09/16/20	**135**	7.3	0.382	9.86		0.308	<0.149	0.00	49.38	3,538.76	22.7	1.226	1.94	7.45	10.8
	12/02/20	**626**	53.3	2.23	66.0		1.79	0.256	0.00	49.56	3,538.58	21.2	1.101	1.87	7.33	35.6
	03/24/21	**849**	124	3.53	56.8		2.36	0.204	0.00	49.72	3,538.42	20.8	0.966	2.11	7.26	54.8
	06/08/21	**765**	86.3	2.20	46.1		1.70	<0.147	0.00	49.90	3,538.24	22.3	1.074	2.02	7.11	44.7
	09/22/21	1.20	<2.0	<1.0	<2.0		<0.06	<0.551	0.00	50.00	3,538.14	23.1	1.226	1.92	7.2	60.6
	12/01/21	2.49	10.4	<1.0	<2.0		<0.06	<0.152	0.00	50.22	3,537.92	22.8	1.119	2.33	7.19	55.8
HTRW-2	6/25/13	**62.3**	21.4	4.4	13.0	101.1	NA	NA	0.00	44.60	3,542.91	21.70	1.233	2.80	6.81	180.2
3587.51	12/11/13	**530**	35.9	12.4	33.4	611.7	NA	NA	0.00	45.05	3,542.46	20.08	1.43	1.07	7.34	-2.00
	6/24/14	**748**	47.6	59.2	84.0		NA	NA	0.00	45.52	3,541.99	19.88	1.536	0.68	6.86	-128.9
	12/11/14	**722**	135	36.4	129		2.0	0.253	0.00	45.79	3,541.72	17.13	1.444	0.41	6.67	-89.1
	06/11/15	**875**	28.7	35.3	29.3		1.24	0.354	0.00	46.05	3,541.46	21.95	1.937	2.82	6.06	-43.3
	12/16/15	**503**	<20.0	18.9	<10.0		1.01	0.144	0.00	46.25	3,541.26	17.01	1.523	0.69	7.07	-69.4
	06/09/16	**863**	6.35	60.6	6.87		2.03	1.05	0.00	46.66	3,540.85	NM	NM	NM	NM	NM
	12/14/16	**322**	7.32	33.3	5.66		0.128	0.461	0.00	46.74	3,540.77	18.65	1.732	1.39	7.73	10.1
	06/06/17	**342**	4.05	2.81	17.9		0.901	0.332	0.00	47.03	3,540.48	18.81	1.035	4.62	6.75	107.4
	09/19/17	NS	NS	NS	NS	NS	NS	NS	0.00	47.08	3,540.43	NS	NS	NS	NS	NS
	12/06/17	NS	NS	NS	NS	NS	NS	NS	0.00	47.25	3,540.26	NS	NS	NS	NS	NS
	03/14/18	NS	NS	NS	NS	NS	NS	NS	0.00	48.42	3,539.09	NS	NS	NS	NS	NS
	06/05/18	NS	NS	NS	NS	NS	NS	NS	0.00	47.56	3,539.95	NS	NS	NS	NS	NS
	09/24/18	NS	NS	NS	NS	NS	NS	NS	0.00	47.77	3,539.74	NS	NS	NS	NS	NS
	12/12/18	NS	NS	NS	NS	NS	NS	NS	0.00	47.79	3,539.72	NS	NS	NS	NS	NS
	03/12/19	NS	NS	NS	NS	NS	NS	NS	0.00	48.01	3,539.50	NS	NS	NS	NS	NS
	09/20/19	NS	NS	NS	NS	NS	NS	NS	0.00	48.28	3,539.23	NS	NS	NS	NS	NS
	12/04/19	NS	NS	NS	NS	NS	NS	NS	0.00	48.35	3,539.16	NS	NS	NS	NS	NS
	03/12/20	NS	NS	NS	NS	NS	NS	NS	0.00	48.47	3,539.04	NS	NS	NS	NS	NS
	06/16/20	NS	NS	NS	NS	NS	NS	NS	0.00	48.59	3,538.92	NS	NS	NS	NS	NS
	09/16/20	NS	NS	NS	NS	NS	NS	NS	0.00	48.68	3,538.83	NS	NS	NS	NS	NS
	12/02/20	NS	NS	NS	NS	NS	NS	NS	0.00	48.89	3,538.62	NS	NS	NS	NS	NS
	03/24/21	NS	NS	NS	NS	NS	NS	NS	0.00	49.10	3,538.41	NS	NS	NS	NS	NS
	06/08/21	NS	NS	NS	NS	NS	NS	NS	0.00	49.23	3,538.28	NS	NS	NS	NS	NS
	09/22/21	NS	NS	NS	NS	NS	NS	NS	0.00	49.34	3,538.17	NS	NS	NS	NS	NS
	12/01/21	NS	NS	NS	NS	NS	NS	NS	0.00	49.56	3,537.95	NS	NS	NS	NS	NS

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
HTRW-3	6/25/13	NSP	NSP	NSP	NSP	NSP	NA	NA	0.01	45.88	3,542.88					
3588.75	12/11/13	NSP	NSP	NSP	NSP	NSP	NA	NA	0.01	46.33	3,542.43					
	6/24/14	3090	1220	450	520		NA	NA	0.00	46.79	3,541.96	21.17	1.56	0.75	6.70	-160.1
	12/11/14	3760	1750	466	632		12.2	1.31	0.00	47.03	3,541.72	17.26	1.684	0.33	6.59	-209.1
	06/11/15	NSP	NSP	NSP	NSP		NSP	NSP	0.26	47.61	3,541.33	NSP	NSP	NSP	NSP	NSP
	12/16/15	NSP	NSP	NSP	NSP		NSP	NSP	1.70	49.00	3,540.99	NSP	NSP	NSP	NSP	NSP
	06/09/16	NSP	NSP	NSP	NSP		NSP	NSP	0.03	47.84	3,540.93	NSP	NSP	NSP	NSP	NSP
	12/14/16	NSP	NSP	NSP	NSP		NSP	NSP	0.51	48.48	3,540.64	NSP	NSP	NSP	NSP	NSP
	06/06/17	NSP	NSP	NSP	NSP		NSP	NSP	0.04	48.35	3,540.43	NSP	NSP	NSP	NSP	NSP
	09/19/17	NSP	NSP	NSP	NSP		NSP	NSP	0.05	48.36	3,540.43	NSP	NSP	NSP	NSP	NSP
	12/06/17	NSP	NSP	NSP	NSP		NSP	NSP	0.75	49.35	3,539.95	NSP	NSP	NSP	NSP	NSP
	03/14/18	NSP	NSP	NSP	NSP		NSP	NSP	0.00	48.68	3,540.07	NSP	NSP	NSP	NSP	NSP
	06/05/18	NSP	NSP	NSP	NSP		NSP	NSP	0.00	48.88	3,539.87	NSP	NSP	NSP	NSP	NSP
	09/24/18	NSP	NSP	NSP	NSP		NSP	NSP	0.10	49.18	3,539.64	NSP	NSP	NSP	NSP	NSP
	12/12/18	NSP	NSP	NSP	NSP		NSP	NSP	0.05	48.13	3,540.66	NSP	NSP	NSP	NSP	NSP
	03/12/19	NSP	NSP	NSP	NSP		NSP	NSP	0.06	49.35	3,539.44	NSP	NSP	NSP	NSP	NSP
	09/20/19	NSP	NSP	NSP	NSP		NSP	NSP	0.00	49.60	3,539.15	NSP	NSP	NSP	NSP	NSP
	12/04/19	NSP	NSP	NSP	NSP		NSP	NSP	0.00	49.75	3,539.00	NSP	NSP	NSP	NSP	NSP
	03/12/20	NS	NS	NS	NS		NS	NS	0.00	49.89	3,538.86	NS	NS	NS	NS	NS
	06/16/20	NSP	NSP	NSP	NSP		NSP	NSP	0.02	49.92	3,538.84	NSP	NSP	NSP	NSP	NSP
	09/16/20	NS	NS	NS	NS		NS	NS	0.00	50.08	3,538.67	NS	NS	NS	NS	NS
	12/02/20	NS	NS	NS	NS		NS	NS	0.00	50.24	3,538.51	NS	NS	NS	NS	NS
	03/24/21	NS	NS	NS	NS		NS	NS	0.00	50.32	3,538.43	NS	NS	NS	NS	NS
	06/08/21	NS	NS	NS	NS		NS	NS	0.00	50.46	3,538.29	NS	NS	NS	NS	NS
	09/22/21	NS	NS	NS	NS		NS	NS	0.00	50.55	3,538.20	NS	NS	NS	NS	NS
	12/01/21	NS	NS	NS	NS		NS	NS	0.00	50.81	3,537.94	NS	NS	NS	NS	NS

Appendix B Summary of Historical Groundwater Analytical Results and Field Parameters
HollyFrontier - Hobbs Tank 5201 - Lea County, New Mexico

Monitor Well ID/ MP Elevation	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Product Thickness (feet)	Depth to Water (ft-bmp)	Groundwater Elevation (ft-msl)	Temperature (deg-C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
NMWQCC Groundwater Standard		5	1000	700	620	--	NE	NE								
HTRW-4	6/25/13	**87.4**	49.4	32.5	52.8	222.1	NA	NA	0.00	45.68	3,542.89	22.30	0.96	2.04	6.87	190.9
3588.57	12/11/13	**951**	157	88.1	219	1414.7	NA	NA	0.00	46.13	3,542.44	20.41	1.44	0.95	7.5	-144
	6/24/14	**1720**	698	253	436		NA	NA	0.00	46.59	3,541.98	21.9	1.751	1.16	7.01	-96.1
	12/11/14	**1590**	288	126	277		4.03	0.643	0.00	46.85	3,541.72	16.54	1.581	0.15	6.81	-190.5
	06/11/15	**1490**	29.2	111	29.9		2.16	0.365	0.00	47.11	3,541.46	23.87	1.486	0.68	6.92	-183.2
	12/16/15	NS	NS	NS	NS	NS	NS	NS	0.00	47.32	3,541.25	NS	NS	NS	NS	NS
	06/09/16	**834**	11.7	35.9	17.8		1.60	1.10	0.00	47.70	3,540.87	22.27	1.559	1.93	6.78	-117
	12/14/16	**3800**	29.6	16.2	46.1		1.31	0.951	0.00	47.79	3,540.78	19.01	1.937	1.48	7.96	-74.01
	06/06/17	**564**	6.20	3.62	57.8		1.97	0.736	0.00	48.09	3,540.48	18.92	1.092	1.77	6.97	-50.9
	09/19/17	NS	NS	NS	NS	NS	NS	NS	0.00	48.19	3,540.38	NS	NS	NS	NS	NS
	12/06/17	NS	NS	NS	NS	NS	NS	NS	0.00	48.30	3,540.27	NS	NS	NS	NS	NS
	03/14/18	NS	NS	NS	NS	NS	NS	NS	0.00	48.58	3,539.99	NS	NS	NS	NS	NS
	06/05/18	NS	NS	NS	NS	NS	NS	NS	0.00	48.64	3,539.93	NS	NS	NS	NS	NS
	09/24/18	NS	NS	NS	NS	NS	NS	NS	0.00	48.78	3,539.79	NS	NS	NS	NS	NS
	12/12/18	NS	NS	NS	NS	NS	NS	NS	0.00	48.48	3,540.09	NS	NS	NS	NS	NS
	03/12/19	NS	NS	NS	NS	NS	NS	NS	0.00	49.05	3,539.52	NS	NS	NS	NS	NS
	09/20/19	NS	NS	NS	NS	NS	NS	NS	0.00	49.38	3,539.19	NS	NS	NS	NS	NS
	12/04/19	NS	NS	NS	NS	NS	NS	NS	0.00	49.92	3,538.65	NS	NS	NS	NS	NS
	03/12/20	NS	NS	NS	NS	NS	NS	NS	0.00	49.55	3,539.02	NS	NS	NS	NS	NS
	06/16/20	NS	NS	NS	NS	NS	NS	NS	0.00	49.68	3,538.89	NS	NS	NS	NS	NS
	09/16/20	NS	NS	NS	NS	NS	NS	NS	0.00	49.82	3,538.75	NS	NS	NS	NS	NS
	12/02/20	NS	NS	NS	NS	NS	NS	NS	0.00	50.01	3,538.56	NS	NS	NS	NS	NS
	03/24/21	NS	NS	NS	NS	NS	NS	NS	0.00	50.11	3,538.46	NS	NS	NS	NS	NS
	06/08/21	NS	NS	NS	NS	NS	NS	NS	0.00	50.35	3,538.22	NS	NS	NS	NS	NS
	09/22/21	NS	NS	NS	NS	NS	NS	NS	0.00	50.38	3,538.19	NS	NS	NS	NS	NS
	12/01/21	NS	NS	NS	NS	NS	NS	NS	0.00	50.66	3,537.91	NS	NS	NS	NS	NS

Notes:
BOLD = Exceeds New Mexico Water Quality Commission (NMWQC) Standard
µg/L = microgram per liter
mg/L= micrograms per liter
< = Not detected above laboratory reporting limit
ft-bmp - feet-below measuring point
ft-msl - feet-mean sea level
deg-C - degrees-Celcius
mS/cm - milliSiemens per centimeter
mV - millivolts
NSP - Not Sampled Product
MP - Measuring Point
NS - Not Sampled
NA- Not analyzed
NE - Not Established
BTEX = Benzene, Toluene, Ethylbenzene and Xylenes
TPH-GRO = Total Petroleum Hydrocarbons-Gasoline Range Oganics
TPH-DRO = Total Petroleum Hydrocarbons-Diesel Range Oganics
BTEX analyzed by Method 8260C
TPH-GRO analyzed by Method 8015V
TPH-DRO analyzed by Method 8015D

Appendix C
Groundwater Laboratory Reports (on disk)

April 05, 2021

Brad Stephenson
GHD
14998 W 6th Ave #800
Golden, CO 80401
TEL: (720) 974-0935
FAX: (432) 686-0186

Order No.: 2103198

RE: Hobbs Tank

Dear Brad Stephenson:

DHL Analytical, Inc. received 5 sample(s) on 3/25/2021 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-26

Table of Contents

DHL ANALYTICAL

2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

nelap ACCREDITING AUTHORITY — DEPARTMENT OF DEFENSE UNITED STATES OF AMERICA

№ 72863

CHAIN-OF-CUSTODY

CLIENT: GHD
ADDRESS: 34127 GAPRD GOLDEN 80403
PHONE: 303 941 6156 FAX/E-MAIL: BRAD.STEPHENSON@GHD.COM
DATA REPORTED TO: BSTEPHENSON
ADDITIONAL REPORT COPIES TO: JCLOAP

DATE: 3/24/21 PAGE 1 OF 1
PO #:
DHL WORK ORDER #: 2103198
PROJECT LOCATION OR NAME: HOBBS TANK
CLENT PROJECT #: 11211520
COLLECTOR:

Authorize 5% surcharge for TRRP Report? ❑ Yes ❑ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID
SE=SEDIMENT

PRESERVATION: HCl | HNO_3 | H_2SO_4 ❑ NaOH ❑ | ICE | UNPRESERVED

ANALYSES: BTEX ☒ MTBE ❑ [METHOD 8021] | TPH 1005 ❑ TPH 1006 ❑ HOLD 1006 ❑ | GRO [METHOD 8015] ☒ DRO [METHOD 8105] ❑ | VOC 8260 ❑ VOC 624 ❑ VOC 8260/5035 ❑ | SVOC 8270 ❑ PAH 8270 ❑ HOLD PAH ❑ SVOC 625 ❑ | 8270 PEST ❑ 625 PEST/PCB ❑ 608 PCB ❑ | 8270 O-P PEST ❑ 8082 PCB ❑ 8270 PCB ❑ | 8321 HERB ❑ T PHOS, AMMONIA ❑ | METALS 6020 ❑ METALS 200.8 ❑ DISS. METALS ❑ | RCRA ☒ TX11 ❑ | PH ❑ HEX CHROM ❑ ALKALINITY ❑ COD ❑ | CHLORIDE ☒ ANIONS ❑ | TCLP-SVOC ❑ VOC ❑ PEST ❑ HERB ❑ | TCLP-METALS ❑ RCRA 8 ❑ TX-11 ❑ Pb ❑ | RCI ❑ FLASHPOINT ❑ DGAS ❑ | TDS ☒ TSS ❑ % MOISTURE ❑ CYANIDE ❑

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	BTEX	GRO/DRO 8015	RCRA/TX11	CHLORIDE	TDS	FIELD NOTES
~~MW-2~~		~~3/24/21~~		W		10	X	X	X	X	X	delete well dry
~~MW-3~~				W		10	X	X	X	X	X	delete well dry
MW-4	01	↓	0930	W		10	X	X	X	X	X	
MW-5	02	↓	1000	W		10	X	X	X	X	X	
MW-5D	03	↓	1000	W		6	X	X			~~X~~	
HTRW-1	04	↓	1030	W		10	X	X	X	X	X	
TRIP	05	3/24/21	–	W		2	X	X				

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	3/24/21 1600	TO FED EX
FedEx	3/25/21 0940	[signature]

❑ DHL DISPOSAL @ $5.00 each ❑ Return

TURN AROUND TIME
RUSH ❑ CALL FIRST
1 DAY ❑ CALL FIRST
2 DAY ❑
NORMAL ❑
OTHER ❑

LABORATORY USE ONLY:
RECEIVING TEMP: 4.6°C THERM #: 78
CUSTODY SEALS: ❑ BROKEN ❑ INTACT ☒ NOT USED
CARRIER: ❑ LONE STAR ☒ FEDEX ❑ UPS ❑ OTHER
❑ COURIER DELIVERY
❑ HAND DELIVERED

DHL COC Rev 1 | FEB 2010

GHD Simplified Scope of Work (SSOW)

SSOW Re
11224355-

Project Name: Holly Energy - Tank 5201
GHD Project No./Phase/Task: 11224355-04-01
Project Location: Hobbs, CO

Phase/Study Title: Quarterly Groundwater Sampling
Event Description: Groundwater sampling

Item	Sample Matrix	Analytical Parameters	Analytical Methods	Unit Prices	Applicable Surcharge Multiplier (1)	Extended Prices	Estimated Sample Qty/Event	Field QC Samples: MS	MSD	Lab Dup	Trip Blk	RBlk	Fld Dup	Other	Total Sample Qty.	Billable Samples
1	Water	BTEX	8260	$ 100.00	1.00	$ 100.00	5				1				6	6.0
2	Water	GRO	8015	$ 55.00	1.00	$ 55.00	5				1				6	6.0
3	Water	DRO	8015	$ 95.00	1.00	$ 95.00	5								5	5.0
4	Water	RCRA 8 Metals	6010/7470	$ 120.00	1.00	$ 120.00	5								5	5.0
5	Water	Chloride	300.0	$ 30.00	1.00	$ 30.00	5								5	5.0
6	Water	TDS	SM2540	$ 30.00	1.00	$ 30.00	5								5	5.0

(1) Explanation of Surcharges:

Estimated Event Subtotal:
Laboratory Surcharge(s):
Estimated Event Total Costs:

Lab Contracting Summary:

Governing Terms and Conditions

- ☐ Master Agreement Number: _____
- ☐ Exhibit "A" Terms and Conditions
- ☑ Client Contract

Party issuing the Purchase Order ("GHD")

GHD Company Name :
GHD Company Code :
GHD Invoice Routing Mailbox :
GHD Invoice Recipient :

GHD Purchase Order Number:
Name of Client: Holly Energy Partners
Other Additional Insureds:
Governing Law: CO
Currency: USD
Address Invoice to:
Electronic Invoice to:

Jeffrey Cloud
(authorized GHD signature)

(authorized Vendor signature)
Typed name constitutes authori

ORIGIN ID:HOBA (303) 941-6156
GHD
14998 W 6TH AVE STE 800

GOLDEN, CO 80401
UNITED STATES US

SHIP DATE: 24MAR21
ACTWGT: 41.25 LB
CAD: 6994246/SSFE2121
DIMS: 23x14x13 IN

BILL THIRD PARTY

TO DHL ANALYTICAL LABS
DHL ANALYTICAL LABS
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222
INV:
PO:
REF:
DEPT:

FedEx
Express
E

J211121011901uv

4 of 4
MPS# 0263 7851 6630 9618
Mstr# 7851 6630 9581 0201

THU - 25 MAR 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US AUS

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GHD Date Received: 3/25/2021

Work Order Number 2103198 Received by: EL

Checklist completed by: Signature 3/25/2021 Date Reviewed by Initials 3/25/2021 Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	4.6 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☑	No ☐	NA ☐ LOT # 13171
	Adjusted? NO		Checked by R.A.
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: Date contacted: Person contacted

Contacted by: Regarding:

Comments:

Corrective Action:

Page 1 of 1

DHL Analytical, Inc. **Date:** *05-Apr-21*

CLIENT: GHD
Project: Hobbs Tank
Lab Order: 2103198

CASE NARRATIVE

TDS Holding time due to laboratory error.
.
Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, EPA and Standard methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Anions Analysis, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate (2103155-02 MS/MSD) was below the method control limits. This is flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS. No further corrective action was taken.

For TDS Analysis, Samples MW-4 and HTRW-1 were analyzed slightly outside of the method specified holdtime, due to an inadvertent laboratory error. These results are "C" flagged in the Analytical Data Report. No further corrective action was taken.

DHL Analytical, Inc.

Date: *05-Apr-21*

CLIENT:	GHD	**Client Sample ID:**	MW-4
Project:	Hobbs Tank	**Lab ID:**	2103198-01
Project No:	11211520	**Collection Date:**	03/24/21 09:30 AM
Lab Order:	2103198	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.151	0.151	0.189		mg/L	1	03/31/21 01:14 PM
Surr: Isopropylbenzene	54.2	0	47-142		%REC	1	03/31/21 01:14 PM
Surr: Octacosane	74.8	0	51-124		%REC	1	03/31/21 01:14 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	03/30/21 02:23 PM
Surr: Tetrachlorethene	120	0	74-138		%REC	1	03/30/21 02:23 PM
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **RO**
Arsenic	0.00827	0.00200	0.00500		mg/L	1	03/29/21 01:00 PM
Barium	0.130	0.00300	0.0100		mg/L	1	03/29/21 01:00 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 01:00 PM
Chromium	0.00279	0.00200	0.00500	J	mg/L	1	03/29/21 01:00 PM
Lead	0.000878	0.000300	0.00100	J	mg/L	1	03/29/21 01:00 PM
Selenium	0.00443	0.00200	0.00500	J	mg/L	1	03/29/21 01:00 PM
Silver	<0.00100	0.00100	0.00200		mg/L	1	03/29/21 01:00 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	03/30/21 11:15 AM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 10:36 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 10:36 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 10:36 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 10:36 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 10:36 PM
Surr: 1,2-Dichloroethane-d4	110	0	72-119		%REC	1	03/29/21 10:36 PM
Surr: 4-Bromofluorobenzene	108	0	76-119		%REC	1	03/29/21 10:36 PM
Surr: Dibromofluoromethane	101	0	85-115		%REC	1	03/29/21 10:36 PM
Surr: Toluene-d8	100	0	81-120		%REC	1	03/29/21 10:36 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	30.8	3.00	10.0		mg/L	10	03/26/21 11:06 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	584	10.0	10.0	C	mg/L	1	04/01/21 05:20 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *05-Apr-21*

CLIENT:	GHD	**Client Sample ID:**	MW-5
Project:	Hobbs Tank	**Lab ID:**	2103198-02
Project No:	11211520	**Collection Date:**	03/24/21 10:00 AM
Lab Order:	2103198	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	0.281	0.149	0.186		mg/L	1	03/31/21 01:23 PM
Surr: Isopropylbenzene	97.3	0	47-142		%REC	1	03/31/21 01:23 PM
Surr: Octacosane	117	0	51-124		%REC	1	03/31/21 01:23 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	03/30/21 02:46 PM
Surr: Tetrachlorethene	124	0	74-138		%REC	1	03/30/21 02:46 PM
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **RO**
Arsenic	0.00606	0.00200	0.00500		mg/L	1	03/29/21 01:02 PM
Barium	0.243	0.00300	0.0100		mg/L	1	03/29/21 01:02 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 01:02 PM
Chromium	0.00438	0.00200	0.00500	J	mg/L	1	03/29/21 01:02 PM
Lead	0.000969	0.000300	0.00100	J	mg/L	1	03/29/21 01:02 PM
Selenium	0.00432	0.00200	0.00500	J	mg/L	1	03/29/21 01:02 PM
Silver	<0.00100	0.00100	0.00200		mg/L	1	03/29/21 01:02 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	03/30/21 11:22 AM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:00 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:00 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 11:00 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:00 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 11:00 PM
Surr: 1,2-Dichloroethane-d4	109	0	72-119		%REC	1	03/29/21 11:00 PM
Surr: 4-Bromofluorobenzene	108	0	76-119		%REC	1	03/29/21 11:00 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	03/29/21 11:00 PM
Surr: Toluene-d8	100	0	81-120		%REC	1	03/29/21 11:00 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	96.4	3.00	10.0		mg/L	10	03/26/21 11:22 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	690	10.0	10.0		mg/L	1	03/30/21 05:00 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *05-Apr-21*

CLIENT:	GHD	**Client Sample ID:**	MW-5D
Project:	Hobbs Tank	**Lab ID:**	2103198-03
Project No:	11211520	**Collection Date:**	03/24/21 10:00 AM
Lab Order:	2103198	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	0.152	0.149	0.186	J	mg/L	1	03/31/21 01:32 PM
Surr: Isopropylbenzene	58.6	0	47-142		%REC	1	03/31/21 01:32 PM
Surr: Octacosane	87.5	0	51-124		%REC	1	03/31/21 01:32 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	03/30/21 03:10 PM
Surr: Tetrachlorethene	125	0	74-138		%REC	1	03/30/21 03:10 PM
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **RO**
Arsenic	0.00643	0.00200	0.00500		mg/L	1	03/29/21 01:04 PM
Barium	0.259	0.00300	0.0100		mg/L	1	03/29/21 01:04 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 01:04 PM
Chromium	0.00433	0.00200	0.00500	J	mg/L	1	03/29/21 01:04 PM
Lead	0.00110	0.000300	0.00100		mg/L	1	03/29/21 01:04 PM
Selenium	0.00355	0.00200	0.00500	J	mg/L	1	03/29/21 01:04 PM
Silver	<0.00100	0.00100	0.00200		mg/L	1	03/29/21 01:04 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	03/30/21 11:33 AM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:25 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:25 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 11:25 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 11:25 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 11:25 PM
Surr: 1,2-Dichloroethane-d4	109	0	72-119		%REC	1	03/29/21 11:25 PM
Surr: 4-Bromofluorobenzene	108	0	76-119		%REC	1	03/29/21 11:25 PM
Surr: Dibromofluoromethane	101	0	85-115		%REC	1	03/29/21 11:25 PM
Surr: Toluene-d8	101	0	81-120		%REC	1	03/29/21 11:25 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	103	3.00	10.0		mg/L	10	03/26/21 11:38 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	711	10.0	10.0		mg/L	1	03/30/21 05:00 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *05-Apr-21*

CLIENT:	GHD	**Client Sample ID:**	HTRW-1
Project:	Hobbs Tank	**Lab ID:**	2103198-04
Project No:	11211520	**Collection Date:**	03/24/21 10:30 AM
Lab Order:	2103198	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	0.204	0.147	0.184		mg/L	1	03/31/21 01:41 PM
Surr: Isopropylbenzene	51.2	0	47-142		%REC	1	03/31/21 01:41 PM
Surr: Octacosane	72.5	0	51-124		%REC	1	03/31/21 01:41 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	2.36	0.0600	0.100		mg/L	1	03/30/21 03:34 PM
Surr: Tetrachlorethene	120	0	74-138		%REC	1	03/30/21 03:34 PM
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **RO**
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/29/21 01:06 PM
Barium	0.0703	0.00300	0.0100		mg/L	1	03/29/21 01:06 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 01:06 PM
Chromium	0.00837	0.00200	0.00500		mg/L	1	03/29/21 01:06 PM
Lead	0.00149	0.000300	0.00100		mg/L	1	03/29/21 01:06 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	03/29/21 01:06 PM
Silver	<0.00100	0.00100	0.00200		mg/L	1	03/29/21 01:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	03/30/21 11:35 AM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	0.849	0.00300	0.0100		mg/L	10	03/30/21 11:32 AM
Ethylbenzene	0.00353	0.000300	0.00100		mg/L	1	03/29/21 11:49 PM
m,p-Xylene	0.0240	0.000600	0.00200		mg/L	1	03/29/21 11:49 PM
o-Xylene	0.0328	0.000300	0.00100		mg/L	1	03/29/21 11:49 PM
Toluene	0.124	0.000600	0.00200		mg/L	1	03/29/21 11:49 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	03/29/21 11:49 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119		%REC	10	03/30/21 11:32 AM
Surr: 4-Bromofluorobenzene	106	0	76-119		%REC	1	03/29/21 11:49 PM
Surr: 4-Bromofluorobenzene	108	0	76-119		%REC	10	03/30/21 11:32 AM
Surr: Dibromofluoromethane	97.3	0	85-115		%REC	1	03/29/21 11:49 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	10	03/30/21 11:32 AM
Surr: Toluene-d8	103	0	81-120		%REC	1	03/29/21 11:49 PM
Surr: Toluene-d8	101	0	81-120		%REC	10	03/30/21 11:32 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	105	3.00	10.0		mg/L	10	03/27/21 12:26 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	459	10.0	10.0	C	mg/L	1	04/01/21 05:20 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *05-Apr-21*

CLIENT:	GHD	**Client Sample ID:**	Trip
Project:	Hobbs Tank	**Lab ID:**	2103198-05
Project No:	11211520	**Collection Date:**	03/24/21
Lab Order:	2103198	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	03/30/21 01:08 PM
Surr: Tetrachlorethene	124	0	74-138		%REC	1	03/30/21 01:08 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 03:57 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 03:57 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 03:57 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/29/21 03:57 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/29/21 03:57 PM
Surr: 1,2-Dichloroethane-d4	106	0	72-119		%REC	1	03/29/21 03:57 PM
Surr: 4-Bromofluorobenzene	105	0	76-119		%REC	1	03/29/21 03:57 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	03/29/21 03:57 PM
Surr: Toluene-d8	99.8	0	81-120		%REC	1	03/29/21 03:57 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *05-Apr-21*

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_210331A

The QC data in batch 100024 applies to the following samples: 2103198-01E, 2103198-02E, 2103198-03E, 2103198-04E

Sample ID: **LCS-100024** Batch ID: **100024** TestNo: **M8015D** Units: **mg/L**
SampType: **LCS** Run ID: **GC15_210331A** Analysis Date: **3/31/2021 12:26:05 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	0.973	0.100	1.250	0	77.8	50	114			
Surr: Isopropylbenzene	0.0576		0.1000		57.6	47	142			
Surr: Octacosane	0.0753		0.1000		75.3	51	124			

Sample ID: **LCSD-100024** Batch ID: **100024** TestNo: **M8015D** Units: **mg/L**
SampType: **LCSD** Run ID: **GC15_210331A** Analysis Date: **3/31/2021 12:35:07 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	0.992	0.100	1.250	0	79.4	50	114	1.99	30	
Surr: Isopropylbenzene	0.0575		0.1000		57.5	47	142	0	0	
Surr: Octacosane	0.0715		0.1000		71.5	51	124	0	0	

Sample ID: **MB-100024** Batch ID: **100024** TestNo: **M8015D** Units: **mg/L**
SampType: **MBLK** Run ID: **GC15_210331A** Analysis Date: **3/31/2021 3:36:24 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	<0.0800	0.100								
Surr: Isopropylbenzene	0.0654		0.1000		65.4	47	142			
Surr: Octacosane	0.0722		0.1000		72.2	51	124			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_210330A

The QC data in batch 100027 applies to the following samples: 2103198-01B, 2103198-02B, 2103198-03B, 2103198-04B, 2103198-05B

Sample ID: **LCS-100027** Batch ID: **100027** TestNo: **M8015V** Units: **mg/L**
SampType: **LCS** Run ID: **GC4_210330A** Analysis Date: **3/30/2021 11:08:38 AM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.97	0.100	2.500	0	119	67	136			
Surr: Tetrachlorethene	0.432		0.4000		108	74	138			

Sample ID: **LCSD-100027** Batch ID: **100027** TestNo: **M8015V** Units: **mg/L**
SampType: **LCSD** Run ID: **GC4_210330A** Analysis Date: **3/30/2021 11:33:07 AM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.99	0.100	2.500	0	120	67	136	0.567	30	
Surr: Tetrachlorethene	0.477		0.4000		119	74	138	0	0	

Sample ID: **MB-100027** Batch ID: **100027** TestNo: **M8015V** Units: **mg/L**
SampType: **MBLK** Run ID: **GC4_210330A** Analysis Date: **3/30/2021 12:44:26 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	<0.0600	0.100								
Surr: Tetrachlorethene	0.478		0.4000		120	74	138			

Sample ID: **2103200-06BMS** Batch ID: **100027** TestNo: **M8015V** Units: **mg/L**
SampType: **MS** Run ID: **GC4_210330A** Analysis Date: **3/30/2021 9:08:36 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.83	0.100	2.500	0	113	67	136			
Surr: Tetrachlorethene	0.492		0.4000		123	74	138			

Sample ID: **2103200-06BMSD** Batch ID: **100027** TestNo: **M8015V** Units: **mg/L**
SampType: **MSD** Run ID: **GC4_210330A** Analysis Date: **3/30/2021 9:32:37 PM** Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.89	0.100	2.500	0	116	67	136	2.20	30	
Surr: Tetrachlorethene	0.489		0.4000		122	74	138	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_210330C

The QC data in batch 100013 applies to the following samples: 2103198-01C, 2103198-02C, 2103198-03C, 2103198-04C

Sample ID: **MB-100013**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:08:24 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID: **LCS-100013**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:10:42 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00195	0.000200	0.00200	0	97.5	85	115			

Sample ID: **LCSD-100013**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:12:59 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00195	0.000200	0.00200	0	97.5	85	115	0	15	

Sample ID: **2103198-02C MS**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:24:27 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00195	0.000200	0.00200	0	97.5	80	120			

Sample ID: **2103198-02C MSD**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:26:44 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	80	120	2.03	15	

Sample ID: **2103198-02C SD**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:29:01 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID: **2103198-02C PDS**	Batch ID: **100013**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_210330C**	Analysis Date: **3/30/2021 11:31:18 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00242	0.000200	0.00250	0	96.8	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_210329B

The QC data in batch 99978 applies to the following samples: 2103198-01C, 2103198-02C, 2103198-03C, 2103198-04C

Sample ID: **MB-99978** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 12:40:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Cadmium	<0.000300	0.00100								
Chromium	<0.00200	0.00500								
Lead	<0.000300	0.00100								
Selenium	<0.00200	0.00500								
Silver	<0.00100	0.00200								

Sample ID: **LCS-99978** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 12:42:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.198	0.00500	0.200	0	98.8	80	120			
Barium	0.204	0.0100	0.200	0	102	80	120			
Cadmium	0.199	0.00100	0.200	0	99.7	80	120			
Chromium	0.205	0.00500	0.200	0	102	80	120			
Lead	0.203	0.00100	0.200	0	102	80	120			
Selenium	0.205	0.00500	0.200	0	102	80	120			
Silver	0.196	0.00200	0.200	0	98.1	80	120			

Sample ID: **LCSD-99978** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 12:44:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.200	0.00500	0.200	0	99.8	80	120	1.02	15	
Barium	0.204	0.0100	0.200	0	102	80	120	0.082	15	
Cadmium	0.199	0.00100	0.200	0	99.7	80	120	0.025	15	
Chromium	0.204	0.00500	0.200	0	102	80	120	0.274	15	
Lead	0.204	0.00100	0.200	0	102	80	120	0.166	15	
Selenium	0.209	0.00500	0.200	0	104	80	120	1.93	15	
Silver	0.196	0.00200	0.200	0	98.2	80	120	0.146	15	

Sample ID: **2103200-01C SD** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 12:50:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.0100	0.0250	0	0.00549				0	20	
Barium	0.0964	0.0500	0	0.0946				1.84	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Chromium	<0.0100	0.0250	0	0				0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_210329B

Sample ID: **2103200-01C SD** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 12:50:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	<0.00150	0.00500	0	0				0	20	
Selenium	<0.0100	0.0250	0	0				0	20	
Silver	<0.00500	0.0100	0	0				0	20	

Sample ID: **2103200-01C PDS** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 1:10:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.203	0.00500	0.200	0.00549	98.6	75	125			
Barium	0.301	0.0100	0.200	0.0946	103	75	125			
Cadmium	0.201	0.00100	0.200	0	100	75	125			
Chromium	0.211	0.00500	0.200	0	106	75	125			
Lead	0.212	0.00100	0.200	0	106	75	125			
Selenium	0.209	0.00500	0.200	0	104	75	125			
Silver	0.184	0.00200	0.200	0	92.0	75	125			

Sample ID: **2103200-01C MS** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 1:12:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0.00549	99.4	75	125			
Barium	0.299	0.0100	0.200	0.0946	102	75	125			
Cadmium	0.195	0.00100	0.200	0	97.7	75	125			
Chromium	0.204	0.00500	0.200	0	102	75	125			
Lead	0.209	0.00100	0.200	0	105	75	125			
Selenium	0.203	0.00500	0.200	0	102	75	125			
Silver	0.190	0.00200	0.200	0	95.1	75	125			

Sample ID: **2103200-01C MSD** Batch ID: **99978** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_210329B** Analysis Date: **3/29/2021 1:14:00 PM** Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.204	0.00500	0.200	0.00549	99.2	75	125	0.135	15	
Barium	0.303	0.0100	0.200	0.0946	104	75	125	1.31	15	
Cadmium	0.195	0.00100	0.200	0	97.4	75	125	0.350	15	
Chromium	0.203	0.00500	0.200	0	102	75	125	0.223	15	
Lead	0.209	0.00100	0.200	0	105	75	125	0.000	15	
Selenium	0.208	0.00500	0.200	0	104	75	125	2.00	15	
Silver	0.189	0.00200	0.200	0	94.7	75	125	0.459	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_210329A

The QC data in batch 100010 applies to the following samples: 2103198-01A, 2103198-02A, 2103198-03A, 2103198-04A, 2103198-05A

Sample ID: **LCS-100010** Batch ID: **100010** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS7_210329A** Analysis Date: **3/29/2021 12:09:00 PM** Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0260	0.00100	0.0232	0	112	81	122			
Ethylbenzene	0.0253	0.00100	0.0232	0	109	80	120			
m,p-Xylene	0.0510	0.00200	0.0464	0	110	80	120			
o-Xylene	0.0250	0.00100	0.0232	0	108	80	120			
Toluene	0.0249	0.00200	0.0232	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	199		200.0		99.3	72	119			
Surr: 4-Bromofluorobenzene	205		200.0		103	76	119			
Surr: Dibromofluoromethane	199		200.0		99.6	85	115			
Surr: Toluene-d8	202		200.0		101	81	120			

Sample ID: **MB-100010** Batch ID: **100010** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS7_210329A** Analysis Date: **3/29/2021 1:06:00 PM** Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100								
Ethylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
o-Xylene	<0.000300	0.00100								
Toluene	<0.000600	0.00200								
Surr: 1,2-Dichloroethane-d4	208		200.0		104	72	119			
Surr: 4-Bromofluorobenzene	209		200.0		104	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	196		200.0		98.1	81	120			

Sample ID: **SB-210329** Batch ID: **100010** TestNo: **SW8260D** Units: **mg/L**
SampType: **SBLK** Run ID: **GCMS7_210329A** Analysis Date: **3/29/2021 6:07:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100	0							
Ethylbenzene	<0.000300	0.00100	0							
m,p-Xylene	<0.000600	0.00200	0							
o-Xylene	<0.000300	0.00100	0							
Toluene	<0.000600	0.00200	0							
Surr: 1,2-Dichloroethane-d4	209		0							
Surr: 4-Bromofluorobenzene	211		0							
Surr: Dibromofluoromethane	205		0							
Surr: Toluene-d8	202		0							

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_210329A

Sample ID: **2103193-01AMS**	Batch ID: **100010**	TestNo: **SW8260D**	Units: **mg/L**
SampType: **MS**	Run ID: **GCMS7_210329A**	Analysis Date: **3/30/2021 2:15:00 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0235	0.00100	0.0232	0	101	81	122			
Ethylbenzene	0.0220	0.00100	0.0232	0	94.9	80	120			
m,p-Xylene	0.0447	0.00200	0.0464	0	96.4	80	120			
o-Xylene	0.0220	0.00100	0.0232	0	95.0	80	120			
Toluene	0.0222	0.00200	0.0232	0	95.8	80	120			
Surr: 1,2-Dichloroethane-d4	210		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	211		200.0		105	76	119			
Surr: Dibromofluoromethane	203		200.0		101	85	115			
Surr: Toluene-d8	204		200.0		102	81	120			

Sample ID: **2103193-01AMSD**	Batch ID: **100010**	TestNo: **SW8260D**	Units: **mg/L**
SampType: **MSD**	Run ID: **GCMS7_210329A**	Analysis Date: **3/30/2021 2:40:00 AM**	Prep Date: **3/29/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0221	0.00100	0.0232	0	95.4	81	122	5.83	20	
Ethylbenzene	0.0210	0.00100	0.0232	0	90.3	80	120	4.93	20	
m,p-Xylene	0.0426	0.00200	0.0464	0	91.8	80	120	4.92	20	
o-Xylene	0.0210	0.00100	0.0232	0	90.7	80	120	4.64	20	
Toluene	0.0210	0.00200	0.0232	0	90.4	80	120	5.79	20	
Surr: 1,2-Dichloroethane-d4	208		200.0		104	72	119	0	0	
Surr: 4-Bromofluorobenzene	209		200.0		105	76	119	0	0	
Surr: Dibromofluoromethane	203		200.0		101	85	115	0	0	
Surr: Toluene-d8	203		200.0		101	81	120	0	0	

Sample ID: **SB-210330**	Batch ID: **100010**	TestNo: **SW8260D**	Units: **mg/L**
SampType: **SBLK**	Run ID: **GCMS7_210329A**	Analysis Date: **3/30/2021 10:43:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100	0							
Surr: 1,2-Dichloroethane-d4	214		0							
Surr: 4-Bromofluorobenzene	216		0							
Surr: Dibromofluoromethane	207		0							
Surr: Toluene-d8	200		0							

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_210326A

The QC data in batch 99989 applies to the following samples: 2103198-01D, 2103198-02D, 2103198-03D, 2103198-04D

Sample ID: **MB-99989**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **MBLK**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 4:58:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								

Sample ID: **LCS-99989**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **LCS**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 5:14:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			

Sample ID: **LCSD-99989**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **LCSD**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 5:30:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.73	1.00	10.00	0	97.3	90	110	3.41	20	

Sample ID: **2103155-02AMS**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 10:34:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	819	10.0	200.0	727.9	45.3	90	110			S

Sample ID: **2103155-02AMSD**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 10:50:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	819	10.0	200.0	727.9	45.4	90	110	0.021	20	S

Sample ID: **2103198-03DMS**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC4_210326A**	Analysis Date: **3/26/2021 11:54:06 PM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	305	10.0	200.0	102.9	101	90	110			

Sample ID: **2103198-03DMSD**	Batch ID: **99989**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC4_210326A**	Analysis Date: **3/27/2021 12:10:06 AM**	Prep Date: **3/26/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	302	10.0	200.0	102.9	99.5	90	110	1.03	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: WC_210330C

The QC data in batch 100032 applies to the following samples: 2103198-01D, 2103198-02D, 2103198-03D, 2103198-04D

Sample ID: **MB-100032**	Batch ID: **100032**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_210330C**	Analysis Date: **3/30/2021 5:00:00 PM**	Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-100032**	Batch ID: **100032**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_210330C**	Analysis Date: **3/30/2021 5:00:00 PM**	Prep Date: **3/30/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	749	10.0	745.6	0	100	90	113			

Sample ID: **2103198-01D DUP**	Batch ID: **100032**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_210330C**	Analysis Date: **4/1/2021 12:40:00 PM**	Prep Date: **3/31/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1240	200	0	1220				1.63	5	

Sample ID: **2103198-04D DUP**	Batch ID: **100032**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_210330C**	Analysis Date: **4/1/2021 12:40:00 PM**	Prep Date: **3/31/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	760	200	0	800.0				5.13	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2103198
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: **WC_210401A**

The QC data in batch 100071 applies to the following samples: 2103198-01D, 2103198-04D

Sample ID: **MB-100071**	Batch ID: **100071**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_210401A**	Analysis Date: **4/1/2021 5:20:00 PM**	Prep Date: **4/1/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-100071**	Batch ID: **100071**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_210401A**	Analysis Date: **4/1/2021 5:20:00 PM**	Prep Date: **4/1/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	747	10.0	745.6	0	100	90	113			

Sample ID: **MB-99925-7DAY**	Batch ID: **100071**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_210401A**	Analysis Date: **4/1/2021 5:20:00 PM**	Prep Date: **4/1/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0	0							

Sample ID: **2103221-01D-DUP**	Batch ID: **100071**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_210401A**	Analysis Date: **4/1/2021 5:20:00 PM**	Prep Date: **4/1/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	6570	50.0	0	6650				1.21	5	

Sample ID: **2103221-02D-DUP**	Batch ID: **100071**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_210401A**	Analysis Date: **4/1/2021 5:20:00 PM**	Prep Date: **4/1/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1650	50.0	0	1705				3.28	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

DHL ANALYTICAL

June 16, 2021

Brad Stephenson
GHD
14998 W 6th Ave #800
Golden, CO 80401
TEL: (720) 974-0935
FAX (432) 686-0186

Order No.: 2106067

RE: Hobbs Tank

Dear Brad Stephenson:

DHL Analytical, Inc. received 1 sample(s) on 6/9/2021 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: GHD
ADDRESS: 6260 W 52ND AVE HOBBS NM, CO 80002
PHONE: EMAIL:
DATA REPORTED TO:
ADDITIONAL REPORT COPIES TO:

PO#:
PROJECT LOCATION OR NAME: HOBBS TANK
CLIENT PROJECT # 11224355-04-01

LABORATORY USE ONLY
DHL WORKORDER #: 2106067

COLLECTOR:

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

Lab Use Only

W=WATER L=LIQUID S=SOLID SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL	HNO_3	H_2SO_4	NaOH ☐ Zn Acetate ☐	ICE ☐ UNPRESERVED ☐	ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015 ☐ DRO 8015 ☐	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐ ____	pH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐	ANIONS 300 ☐ 9056 ☐ ____	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	FIELD NOTES
HTRW-1	01	6/8/21	0850									X		X															

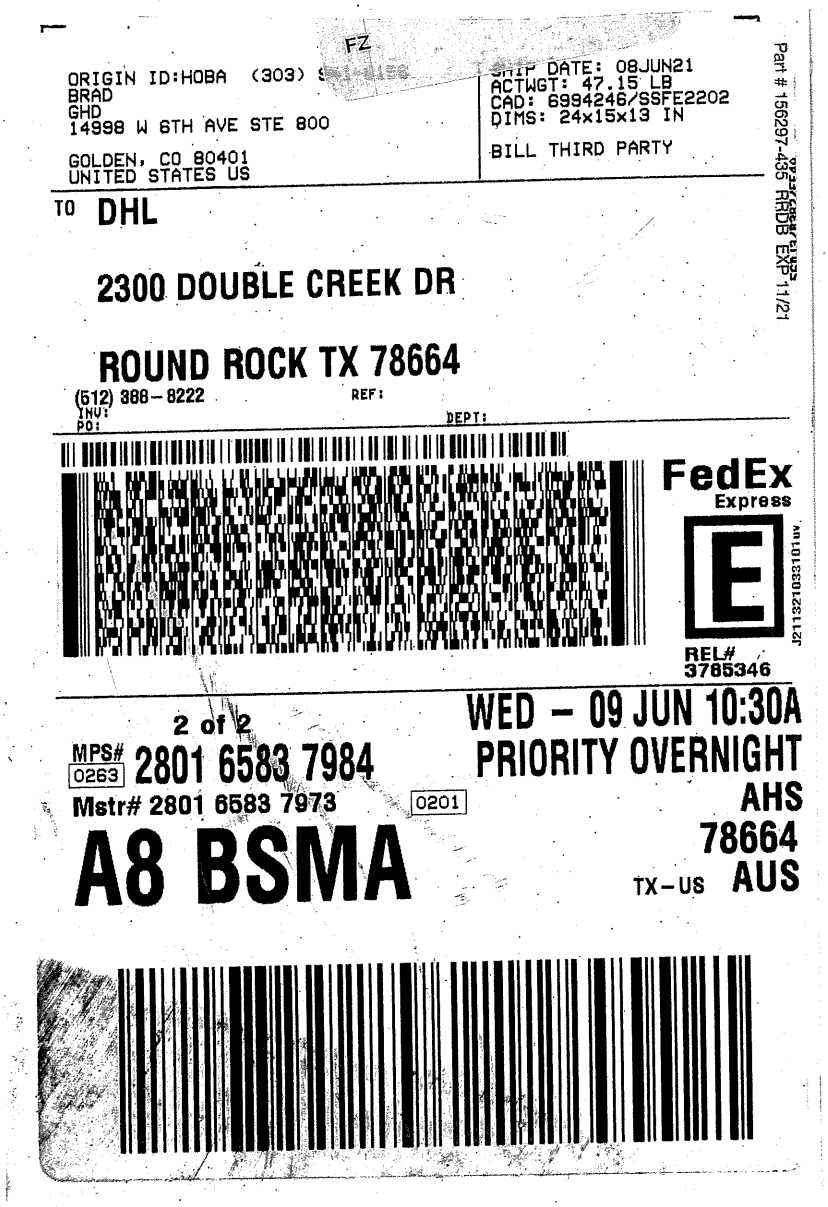
Relinquished By: (Sign) — DATE/TIME 6/8/21 1600 — Received by: to FedEx
Relinquished By: (Sign) FedEx — DATE/TIME 6/9/21 0838 — Received by:
Relinquished By: (Sign) — DATE/TIME — Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☐ OTHER ☐
DUE DATE _____ ☐

LABORATORY USE ONLY
RECEIVING TEMP (°C): 1.7 °C THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LSO ☒ FEDEX ☐ UPS ☐ COURIER ☐ OTHER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ 5.00 each** ☐ **Return**

DHL COC REV 3 | MAR 2021



FZ

ORIGIN ID:HOBA (303) [redacted]
BRAD
GHD
14998 W 6TH AVE STE 800

GOLDEN, CO 80401
UNITED STATES US

SHIP DATE: 08JUN21
ACTWGT: 47.15 LB
CAD: 6994246/SSFE2202
DIMS: 24x15x13 IN

BILL THIRD PARTY

Part # 156297-435 RRDB EXP 11/21

TO DHL

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(512) 388-8222 REF:

INV:
PO: DEPT:

FedEx Express

REL# 3785346

2 of 2

MPS# 0263 2801 6583 7984

Mstr# 2801 6583 7973 0201

WED - 09 JUN 10:30A
PRIORITY OVERNIGHT

AHS
78664
TX-US AUS

A8 BSMA

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GHD Date Received: 6/9/2021

Work Order Number 2106067 Received by: RA

Checklist completed by: _____ 6/9/2021 Reviewed by DS 6/9/2021
Signature | Date | Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.7 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Page 1 of 1

DHL Analytical, Inc. **Date:** *16-Jun-21*

CLIENT: GHD
Project: Hobbs Tank
Lab Order: 2106067

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, M8015D and M8015V.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For Volatiles analysis by method SW8260D the matrix spike and matrix spike duplicate recoveries were out of control limits for Benzene. This was due to matrix interference. These are flagged accordingly in the enclosed QC summary report. The "S" flag denotes spike recovery was outside control limits. The LCS was within control limits for this compound. No further corrective actions were taken.

For DRO analysis by method M8015D an MS/MSD was not performed due to insufficient sample volume. An LCS/LCSD was performed instead.

For DRO analysis by method M8015D the surrogate recoveries for the LCS/LCSD were below control limits for Isopropylbenzene. These are flagged accordingly. The remaining surrogate was within control limits. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *16-Jun-21*

CLIENT:	GHD	**Client Sample ID:**	HTRW-1
Project:	Hobbs Tank	**Lab ID:**	2106067-01
Project No:	11224355-04-01	**Collection Date:**	06/08/21 08:50 AM
Lab Order:	2106067	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.147	0.147	0.184		mg/L	1	06/14/21 12:52 PM
Surr: Isopropylbenzene	59.7	0	47-142		%REC	1	06/14/21 12:52 PM
Surr: Octacosane	92.1	0	51-124		%REC	1	06/14/21 12:52 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	1.70	0.0600	0.100		mg/L	1	06/14/21 05:26 PM
Surr: Tetrachlorethene	124	0	74-138		%REC	1	06/14/21 05:26 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	0.765	0.00300	0.0100		mg/L	10	06/09/21 04:34 PM
Ethylbenzene	0.00220	0.000300	0.00100		mg/L	1	06/09/21 05:04 PM
m,p-Xylene	0.0208	0.000600	0.00200		mg/L	1	06/09/21 05:04 PM
o-Xylene	0.0253	0.000300	0.00100		mg/L	1	06/09/21 05:04 PM
Toluene	0.0863	0.000600	0.00200		mg/L	1	06/09/21 05:04 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	10	06/09/21 04:34 PM
Surr: 1,2-Dichloroethane-d4	100	0	72-119		%REC	1	06/09/21 05:04 PM
Surr: 4-Bromofluorobenzene	103	0	76-119		%REC	1	06/09/21 05:04 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	10	06/09/21 04:34 PM
Surr: Dibromofluoromethane	99.4	0	85-115		%REC	10	06/09/21 04:34 PM
Surr: Dibromofluoromethane	97.3	0	85-115		%REC	1	06/09/21 05:04 PM
Surr: Toluene-d8	98.6	0	81-120		%REC	10	06/09/21 04:34 PM
Surr: Toluene-d8	99.0	0	81-120		%REC	1	06/09/21 05:04 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *16-Jun-21*

CLIENT: GHD
Work Order: 2106067
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_210614A

The QC data in batch 100874 applies to the following samples: 2106067-01C

Sample ID: **MB-100874** Batch ID: **100874** TestNo: **M8015D** Units: **mg/L**
SampType: **MBLK** Run ID: **GC15_210614A** Analysis Date: **6/14/2021 10:11:43 AM** Prep Date: **6/10/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	<0.0800	0.100	0							
Surr: Isopropylbenzene	0.0572		0.1000		57.2	47	142			
Surr: Octacosane	0.0879		0.1000		87.9	51	124			

Sample ID: **LCS-100874** Batch ID: **100874** TestNo: **M8015D** Units: **mg/L**
SampType: **LCS** Run ID: **GC15_210614A** Analysis Date: **6/14/2021 10:20:47 AM** Prep Date: **6/10/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	0.959	0.100	1.250	0	76.8	50	114			
Surr: Isopropylbenzene	0.0304		0.1000		30.4	47	142			S
Surr: Octacosane	0.0843		0.1000		84.3	51	124			

Sample ID: **LCSD-100874** Batch ID: **100874** TestNo: **M8015D** Units: **mg/L**
SampType: **LCSD** Run ID: **GC15_210614A** Analysis Date: **6/14/2021 10:29:50 AM** Prep Date: **6/10/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.09	0.100	1.250	0	87.1	50	114	12.6	30	
Surr: Isopropylbenzene	0.0298		0.1000		29.8	47	142	0	0	S
Surr: Octacosane	0.0894		0.1000		89.4	51	124	0	0	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2106067
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_210614A

The QC data in batch 100901 applies to the following samples: 2106067-01B

Sample ID: **LCS-100901**	Batch ID: **100901**	TestNo: **M8015V**	Units: **mg/L**
SampType: **LCS**	Run ID: **GC4_210614A**	Analysis Date: **6/14/2021 10:27:07 AM**	Prep Date: **6/14/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.23	0.100	2.500	0	89.3	67	136			
Surr: Tetrachlorethene	0.350		0.4000		87.5	74	138			

Sample ID: **LCSD-100901**	Batch ID: **100901**	TestNo: **M8015V**	Units: **mg/L**
SampType: **LCSD**	Run ID: **GC4_210614A**	Analysis Date: **6/14/2021 10:51:04 AM**	Prep Date: **6/14/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.61	0.100	2.500	0	104	67	136	15.7	30	
Surr: Tetrachlorethene	0.383		0.4000		95.6	74	138	0	0	

Sample ID: **MB-100901**	Batch ID: **100901**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MBLK**	Run ID: **GC4_210614A**	Analysis Date: **6/14/2021 12:04:24 PM**	Prep Date: **6/14/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	<0.0600	0.100								
Surr: Tetrachlorethene	0.436		0.4000		109	74	138			

Sample ID: **2106066-01BMS**	Batch ID: **100901**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MS**	Run ID: **GC4_210614A**	Analysis Date: **6/14/2021 2:56:10 PM**	Prep Date: **6/14/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.64	0.100	2.500	0	106	67	136			
Surr: Tetrachlorethene	0.475		0.4000		119	74	138			

Sample ID: **2106066-01BMSD**	Batch ID: **100901**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MSD**	Run ID: **GC4_210614A**	Analysis Date: **6/14/2021 3:19:48 PM**	Prep Date: **6/14/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.80	0.100	2.500	0	112	67	136	5.77	30	
Surr: Tetrachlorethene	0.492		0.4000		123	74	138	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2106067
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_210609A

The QC data in batch 100868 applies to the following samples: 2106067-01A

Sample ID: **LCS-100868** Batch ID: **100868** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS5_210609A** Analysis Date: **6/9/2021 12:14:00 PM** Prep Date: **6/9/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0224	0.00100	0.0232	0	96.7	81	122			
Ethylbenzene	0.0222	0.00100	0.0232	0	95.7	80	120			
m,p-Xylene	0.0444	0.00200	0.0464	0	95.8	80	120			
o-Xylene	0.0220	0.00100	0.0232	0	95.0	80	120			
Toluene	0.0224	0.00200	0.0232	0	96.6	80	120			
Surr: 1,2-Dichloroethane-d4	195		200.0		97.7	72	119			
Surr: 4-Bromofluorobenzene	203		200.0		101	76	119			
Surr: Dibromofluoromethane	199		200.0		99.6	85	115			
Surr: Toluene-d8	195		200.0		97.3	81	120			

Sample ID: **MB-100868** Batch ID: **100868** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS5_210609A** Analysis Date: **6/9/2021 1:06:00 PM** Prep Date: **6/9/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100								
Ethylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
o-Xylene	<0.000300	0.00100								
Toluene	<0.000600	0.00200								
Surr: 1,2-Dichloroethane-d4	206		200.0		103	72	119			
Surr: 4-Bromofluorobenzene	206		200.0		103	76	119			
Surr: Dibromofluoromethane	202		200.0		101	85	115			
Surr: Toluene-d8	196		200.0		98.2	81	120			

Sample ID: **2106067-01AMS** Batch ID: **100868** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS5_210609A** Analysis Date: **6/9/2021 5:30:00 PM** Prep Date: **6/9/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.829	0.0100	0.232	0.765	27.5	81	122			S
Ethylbenzene	0.254	0.0100	0.232	0.00313	108	80	120			
m,p-Xylene	0.530	0.0200	0.464	0.0300	108	80	120			
o-Xylene	0.285	0.0100	0.232	0.0357	107	80	120			
Toluene	0.350	0.0200	0.232	0.127	96.4	80	120			
Surr: 1,2-Dichloroethane-d4	2030		2000		102	72	119			
Surr: 4-Bromofluorobenzene	1990		2000		99.5	76	119			
Surr: Dibromofluoromethane	2000		2000		99.8	85	115			
Surr: Toluene-d8	1960		2000		97.9	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2106067
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_210609A

Sample ID: **2106067-01AMSD** Batch ID: **100868** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS5_210609A** Analysis Date: **6/9/2021 5:56:00 PM** Prep Date: **6/9/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.764	0.0100	0.232	0.765	-0.280	81	122	8.11	20	S
Ethylbenzene	0.237	0.0100	0.232	0.00313	101	80	120	7.05	20	
m,p-Xylene	0.498	0.0200	0.464	0.0300	101	80	120	6.28	20	
o-Xylene	0.263	0.0100	0.232	0.0357	97.8	80	120	8.04	20	
Toluene	0.323	0.0200	0.232	0.127	84.8	80	120	7.99	20	
Surr: 1,2-Dichloroethane-d4	1990		2000		99.5	72	119	0	0	
Surr: 4-Bromofluorobenzene	2020		2000		101	76	119	0	0	
Surr: Dibromofluoromethane	1990		2000		99.5	85	115	0	0	
Surr: Toluene-d8	1950		2000		97.6	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

October 01, 2021

Brad Stephenson
GHD
14998 W 6th Ave #800
Golden, CO 80401
TEL: (720) 974-0935
FAX (432) 686-0186

Order No.: 2109187

RE: Hobbs Tank

Dear Brad Stephenson:

DHL Analytical, Inc. received 2 sample(s) on 9/24/2021 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: GHD / HOLLYFRONTIER
ADDRESS:
PHONE: 303 941-4156 EMAIL: BRAD.STEPHENSON@GHD.COM
DATA REPORTED TO: BSTEPHENSON
ADDITIONAL REPORT COPIES TO: J CLOUD

DATE: 9/23/21
PO#:
PROJECT LOCATION OR NAME: HOBBS TANK
CLIENT PROJECT # 11224355 COLLECTOR:

LABORATORY USE ONLY
DHL WORKORDER #: 2109187

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

Lab Use Only

W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL	HNO_3	H_2SO_4	NaOH ☐ Zn Acetate ☐	ICE ☐ UNPRESERVED ☐	ANALYSES: BTEX ☒ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015 ☒ DRO 8015 ☒	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐ _____	pH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐	ANIONS 300 ☐ 9056 ☐ _____	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	FIELD NOTES
HTRW-1 TRIP	01	9/22/21	0800			8						X		X																
	02					2						X		X																

Relinquished By: (Sign) DATE/TIME 9/23/1130 Received by: TO FED EX
Relinquished By: (Sign) Fed Ex DATE/TIME 9/24/21 1006 Received by:
Relinquished By: (Sign) DATE/TIME Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☐ OTHER ☐
DUE DATE _____ ☐

LABORATORY USE ONLY
RECEIVING TEMP (°C): 5.5 THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LSO ☒ FEDEX ☐ UPS ☐ COURIER ☐ OTHER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ 5.00 each** ☐ **Return**

DHL COC REV 3 | MAR 2021

ORIGIN ID:LAAA (303) 941-6156
GHD
14998 W 6TH AVE STE 800
GOLDEN, CO 80401
UNITED STATES US

SHIP DATE: 23SEP21
ACTWGT: 18.15 LB
CAD: 6754094/SSF02220
DIMS: 17x16x9 IN
BILL THIRD PARTY

TO DHL

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222
INV:
PO:
REF:
DEPT:

FedEx
Express

E

J212021070901uv

REL#
3785346

TRK# 0201 2840 9014 0172

FRI - 24 SEP 10:30A
PRIORITY OVERNIGHT

XH BSMA

AHS
78664
TX-US AUS

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GHD Date Received: 9/24/2021

Work Order Number 2109187 Received by: EL

Checklist completed by: _____ 9/24/2021 Reviewed by SH 9/24/2021
Signature | Date | Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	5.5 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Page 1 of 1

DHL Analytical, Inc. **Date:** *01-Oct-21*

CLIENT: GHD
Project: Hobbs Tank
Lab Order: 2109187

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

DHL Analytical, Inc.

Date: *01-Oct-21*

CLIENT:	GHD	**Client Sample ID:**	HTRW-1
Project:	Hobbs Tank	**Lab ID:**	2109187-01
Project No:	11224355	**Collection Date:**	09/22/21 08:00 AM
Lab Order:	2109187	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.551	0.551	0.735		mg/L	1	09/28/21 11:38 AM
Surr: Isopropylbenzene	48.9	0	47-142		%REC	1	09/28/21 11:38 AM
Surr: Octacosane	88.7	0	51-124		%REC	1	09/28/21 11:38 AM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	09/27/21 04:16 PM
Surr: Tetrachlorethene	111	0	74-138		%REC	1	09/27/21 04:16 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	0.00120	0.000300	0.00100		mg/L	1	09/27/21 05:06 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/27/21 05:06 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/27/21 05:06 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/27/21 05:06 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/27/21 05:06 PM
Surr: 1,2-Dichloroethane-d4	95.0	0	72-119		%REC	1	09/27/21 05:06 PM
Surr: 4-Bromofluorobenzene	82.9	0	76-119		%REC	1	09/27/21 05:06 PM
Surr: Dibromofluoromethane	106	0	85-115		%REC	1	09/27/21 05:06 PM
Surr: Toluene-d8	95.5	0	81-120		%REC	1	09/27/21 05:06 PM

Qualifiers:				
	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *01-Oct-21*

CLIENT:	GHD	**Client Sample ID:**	Trip
Project:	Hobbs Tank	**Lab ID:**	2109187-02
Project No:	11224355	**Collection Date:**	09/22/21
Lab Order:	2109187	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	09/27/21 12:38 PM
Surr: Tetrachlorethene	114	0	74-138		%REC	1	09/27/21 12:38 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **SNM**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	09/27/21 02:57 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/27/21 02:57 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/27/21 02:57 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/27/21 02:57 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/27/21 02:57 PM
Surr: 1,2-Dichloroethane-d4	93.2	0	72-119		%REC	1	09/27/21 02:57 PM
Surr: 4-Bromofluorobenzene	84.6	0	76-119		%REC	1	09/27/21 02:57 PM
Surr: Dibromofluoromethane	104	0	85-115		%REC	1	09/27/21 02:57 PM
Surr: Toluene-d8	96.2	0	81-120		%REC	1	09/27/21 02:57 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *01-Oct-21*

CLIENT: GHD
Work Order: 2109187
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_210928A

The QC data in batch 102198 applies to the following samples: 2109187-01C

Sample ID: **MB-102198** Batch ID: **102198** TestNo: **M8015D** Units: **mg/L**
SampType: **MBLK** Run ID: **GC15_210928A** Analysis Date: **9/28/2021 9:46:58 AM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	<0.300	0.400								
Surr: Isopropylbenzene	0.0503		0.1000		50.3	47	142			
Surr: Octacosane	0.0921		0.1000		92.1	51	124			

Sample ID: **LCS-102198** Batch ID: **102198** TestNo: **M8015D** Units: **mg/L**
SampType: **LCS** Run ID: **GC15_210928A** Analysis Date: **9/28/2021 9:56:02 AM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.02	0.400	1.250	0	81.4	50	114			
Surr: Isopropylbenzene	0.0526		0.1000		52.6	47	142			
Surr: Octacosane	0.0911		0.1000		91.1	51	124			

Sample ID: **LCSD-102198** Batch ID: **102198** TestNo: **M8015D** Units: **mg/L**
SampType: **LCSD** Run ID: **GC15_210928A** Analysis Date: **9/28/2021 10:05:05 AM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.01	0.400	1.250	0	81.0	50	114	0.437	30	
Surr: Isopropylbenzene	0.0515		0.1000		51.5	47	142	0	0	
Surr: Octacosane	0.0941		0.1000		94.1	51	124	0	0	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2109187
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_210927A

The QC data in batch 102197 applies to the following samples: 2109187-01B, 2109187-02B

Sample ID: **LCS-102197**	Batch ID: **102197**	TestNo: **M8015V**	Units: **mg/L**
SampType: **LCS**	Run ID: **GC4_210927A**	Analysis Date: **9/27/2021 10:36:56 AM**	Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.70	0.100	2.500	0	108	67	136			
Surr: Tetrachlorethene	0.428		0.4000		107	74	138			

Sample ID: **LCSD-102197**	Batch ID: **102197**	TestNo: **M8015V**	Units: **mg/L**
SampType: **LCSD**	Run ID: **GC4_210927A**	Analysis Date: **9/27/2021 11:01:05 AM**	Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.69	0.100	2.500	0	108	67	136	0.450	30	
Surr: Tetrachlorethene	0.428		0.4000		107	74	138	0	0	

Sample ID: **MB-102197**	Batch ID: **102197**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MBLK**	Run ID: **GC4_210927A**	Analysis Date: **9/27/2021 12:13:14 PM**	Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	<0.0600	0.100								
Surr: Tetrachlorethene	0.460		0.4000		115	74	138			

Sample ID: **2109167-01BMS**	Batch ID: **102197**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MS**	Run ID: **GC4_210927A**	Analysis Date: **9/27/2021 4:40:36 PM**	Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.67	0.100	2.500	0	107	67	136			
Surr: Tetrachlorethene	0.472		0.4000		118	74	138			

Sample ID: **2109167-01BMSD**	Batch ID: **102197**	TestNo: **M8015V**	Units: **mg/L**
SampType: **MSD**	Run ID: **GC4_210927A**	Analysis Date: **9/27/2021 5:04:09 PM**	Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.83	0.100	2.500	0	113	67	136	5.71	30	
Surr: Tetrachlorethene	0.479		0.4000		120	74	138	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2109187
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_210927A

The QC data in batch 102208 applies to the following samples: 2109187-01A, 2109187-02A

Sample ID: **LCS-102208** Batch ID: **102208** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS5_210927A** Analysis Date: **9/27/2021 12:26:00 PM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0256	0.00100	0.0232	0	111	81	122			
Ethylbenzene	0.0269	0.00100	0.0232	0	116	80	120			
m,p-Xylene	0.0555	0.00200	0.0464	0	120	80	120			
o-Xylene	0.0279	0.00100	0.0232	0	120	80	120			
Toluene	0.0271	0.00200	0.0232	0	117	80	120			
Surr: 1,2-Dichloroethane-d4	181		200.0		90.4	72	119			
Surr: 4-Bromofluorobenzene	168		200.0		83.9	76	119			
Surr: Dibromofluoromethane	208		200.0		104	85	115			
Surr: Toluene-d8	190		200.0		95.0	81	120			

Sample ID: **MB-102208** Batch ID: **102208** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS5_210927A** Analysis Date: **9/27/2021 2:05:00 PM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100								
Ethylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
o-Xylene	<0.000300	0.00100								
Toluene	<0.000600	0.00200								
Surr: 1,2-Dichloroethane-d4	183		200.0		91.7	72	119			
Surr: 4-Bromofluorobenzene	169		200.0		84.3	76	119			
Surr: Dibromofluoromethane	210		200.0		105	85	115			
Surr: Toluene-d8	191		200.0		95.5	81	120			

Sample ID: **2109187-01AMS** Batch ID: **102208** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS5_210927A** Analysis Date: **9/27/2021 5:31:00 PM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.255	0.0100	0.232	0	110	81	122			
Ethylbenzene	0.267	0.0100	0.232	0	115	80	120			
m,p-Xylene	0.537	0.0200	0.464	0	116	80	120			
o-Xylene	0.270	0.0100	0.232	0	117	80	120			
Toluene	0.259	0.0200	0.232	0	111	80	120			
Surr: 1,2-Dichloroethane-d4	1860		2000		93.1	72	119			
Surr: 4-Bromofluorobenzene	1680		2000		84.1	76	119			
Surr: Dibromofluoromethane	2100		2000		105	85	115			
Surr: Toluene-d8	1890		2000		94.5	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2109187
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_210927A

Sample ID: **2109187-01AMSD** Batch ID: **102208** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS5_210927A** Analysis Date: **9/27/2021 5:57:00 PM** Prep Date: **9/27/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.244	0.0100	0.232	0	105	81	122	4.31	20	
Ethylbenzene	0.257	0.0100	0.232	0	111	80	120	3.87	20	
m,p-Xylene	0.518	0.0200	0.464	0	112	80	120	3.46	20	
o-Xylene	0.260	0.0100	0.232	0	112	80	120	3.69	20	
Toluene	0.250	0.0200	0.232	0	108	80	120	3.22	20	
Surr: 1,2-Dichloroethane-d4	1860		2000		92.8	72	119	0	0	
Surr: 4-Bromofluorobenzene	1710		2000		85.4	76	119	0	0	
Surr: Dibromofluoromethane	2080		2000		104	85	115	0	0	
Surr: Toluene-d8	1900		2000		94.8	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

December 10, 2021

Brad Stephenson
GHD
14998 W 6th Ave #800
Golden, CO 80401
TEL: (720) 974-0935
FAX (432) 686-0186

Order No.: 2112039

RE: Hobbs Tank

Dear Brad Stephenson:

DHL Analytical, Inc. received 5 sample(s) on 12/3/2021 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative and all estimated uncertainties of results are within method specifications.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: GHD 880002
ADDRESS: 6260 W 52ND AVE #105 ARVADA
PHONE: 3039416156 EMAIL: BRAD.STEPHENSON@GHD.COM
DATA REPORTED TO: BSTEPHENSON
ADDITIONAL REPORT COPIES TO: J CLOUD

DATE: 12/1/21
PO#:
PROJECT LOCATION OR NAME: HOBBS TANK
CLIENT PROJECT # 11122.4355 COLLECTOR: BSTEPHENSON

LABORATORY USE ONLY
DHL WORKORDER #: 212039

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

Lab Use Only: W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4	NaOH ☐ Zn Acetate ☐	ICE ☐ UNPRESERVED ☐	ANALYSES: BTEX☒ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015☒ DRO 8015☒	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐	pH☐ HEX CHROM☐ ALKALINITY☐ COD☐	ANIONS 300 ☐ 9056 ☐	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	FIELD NOTES
HTRW-1	01	12/1/21	1200			8						X		X															
MW-5	02	↓	1300			8						X		X															
MW-5D	03	↓	1300			8						X		X															
MW-4	04	12/1/21	1345			8						X		X															
	-																												
TRIP	05	—	—			2						X		X															GRO

Relinquished By: (Sign)	DATE/TIME	Received by:
	12/2/21 1700	FEDEX
Relinquished By: (Sign)	DATE/TIME	Received by:
Fed Ex	12/3/21 1015	
Relinquished By: (Sign)	DATE/TIME	Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☐ OTHER ☐
DUE DATE _____ ☐

LABORATORY USE ONLY
RECEIVING TEMP (°C): 1.5 THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LSO ☒ FEDEX ☐ UPS ☐ COURIER ☐ OTHER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ 5.00 each** ☐ **Return**

DHL COC REV 3 | MAR 2021

ORIGIN ID:DENA (000) 000-0000

GHD
14998 W 6TH AVE STE 800

GOLDEN, CO 80401
UNITED STATES US

SHIP DATE: 02DEC21
ACTWGT: 34.20 LB
CAD: 6992847/SSF02220
DIMS: 24x14x13 IN

BILL THIRD PARTY

Part # 156297-435 HRD52 EXP 09/22

TO DHL ANALYTICAL

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(512) 388-8222 REF:

INV: PO: DEPT:

FedEx Express

REL# 3785346

1 of 2

TRK# 0201 2869 8200 3483

MASTER

XA BSMA

FRI - 03 DEC 11:30A
PRIORITY OVERNIGHT

AHS
78664
TX-US AUS

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name GHD Date Received: 12/3/2021

Work Order Number 2112039 Received by: EL

Checklist completed by: _____ 12/3/2021 Reviewed by JH 12/3/2021
Signature | Date | Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.5 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: One VOA vial for Trip Blank broken in transit.

Corrective Action: Proceed with analysis using unbroken vials.

DHL Analytical, Inc. **Date:** *10-Dec-21*

CLIENT: GHD
Project: Hobbs Tank
Lab Order: 2112039

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition and Standard Methods.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives except where noted in the following. For DRO Analysis, the recovery of surrogate Isopropylbenzene for four samples, the Laboratory Control Spike and Laboratory Control Spike Duplicate (LCS/LCSD-103080) was below the method control limits. These are flagged accordingly in the Analytical Data Report and the QC Summary Report. The remaining surrogate for these samples was within method control limits. No further corrective action was taken.

DHL Analytical, Inc.

Date: *10-Dec-21*

CLIENT:	GHD	**Client Sample ID:**	HTRW-1
Project:	Hobbs Tank	**Lab ID:**	2112039-01
Project No:	11224355	**Collection Date:**	12/01/21 12:00 PM
Lab Order:	2112039	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.152	0.152	0.190		mg/L	1	12/08/21 12:50 PM
Surr: Isopropylbenzene	38.1	0	47-142	S	%REC	1	12/08/21 12:50 PM
Surr: Octacosane	78.9	0	51-124		%REC	1	12/08/21 12:50 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	12/07/21 04:22 PM
Surr: Tetrachlorethene	114	0	74-138		%REC	1	12/07/21 04:22 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **JVR**
Benzene	0.00249	0.000300	0.00100		mg/L	1	12/06/21 05:35 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 05:35 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 05:35 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 05:35 PM
Toluene	0.00104	0.000600	0.00200	J	mg/L	1	12/06/21 05:35 PM
Surr: 1,2-Dichloroethane-d4	91.8	0	72-119		%REC	1	12/06/21 05:35 PM
Surr: 4-Bromofluorobenzene	86.7	0	76-119		%REC	1	12/06/21 05:35 PM
Surr: Dibromofluoromethane	100	0	85-115		%REC	1	12/06/21 05:35 PM
Surr: Toluene-d8	88.0	0	81-120		%REC	1	12/06/21 05:35 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Dec-21*

CLIENT:	GHD	**Client Sample ID:**	MW-5
Project:	Hobbs Tank	**Lab ID:**	2112039-02
Project No:	11224355	**Collection Date:**	12/01/21 01:00 PM
Lab Order:	2112039	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.147	0.147	0.183		mg/L	1	12/08/21 12:59 PM
Surr: Isopropylbenzene	41.2	0	47-142	S	%REC	1	12/08/21 12:59 PM
Surr: Octacosane	82.4	0	51-124		%REC	1	12/08/21 12:59 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	12/07/21 04:45 PM
Surr: Tetrachlorethene	112	0	74-138		%REC	1	12/07/21 04:45 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **JVR**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:22 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:22 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 04:22 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:22 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 04:22 PM
Surr: 1,2-Dichloroethane-d4	91.1	0	72-119		%REC	1	12/06/21 04:22 PM
Surr: 4-Bromofluorobenzene	88.4	0	76-119		%REC	1	12/06/21 04:22 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	12/06/21 04:22 PM
Surr: Toluene-d8	88.9	0	81-120		%REC	1	12/06/21 04:22 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Dec-21*

CLIENT:	GHD	**Client Sample ID:**	MW-5D
Project:	Hobbs Tank	**Lab ID:**	2112039-03
Project No:	11224355	**Collection Date:**	12/01/21 01:00 PM
Lab Order:	2112039	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	<0.147	0.147	0.184		mg/L	1	12/08/21 01:08 PM
Surr: Isopropylbenzene	43.2	0	47-142	S	%REC	1	12/08/21 01:08 PM
Surr: Octacosane	83.9	0	51-124		%REC	1	12/08/21 01:08 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	12/07/21 05:09 PM
Surr: Tetrachlorethene	112	0	74-138		%REC	1	12/07/21 05:09 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **JVR**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:46 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:46 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 04:46 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 04:46 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 04:46 PM
Surr: 1,2-Dichloroethane-d4	92.5	0	72-119		%REC	1	12/06/21 04:46 PM
Surr: 4-Bromofluorobenzene	86.1	0	76-119		%REC	1	12/06/21 04:46 PM
Surr: Dibromofluoromethane	100	0	85-115		%REC	1	12/06/21 04:46 PM
Surr: Toluene-d8	88.4	0	81-120		%REC	1	12/06/21 04:46 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Dec-21*

CLIENT:	GHD	**Client Sample ID:**	MW-4
Project:	Hobbs Tank	**Lab ID:**	2112039-04
Project No:	11224355	**Collection Date:**	12/01/21 01:45 PM
Lab Order:	2112039	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER		**M8015D**					Analyst: **BTJ**
TPH-DRO C10-C28	0.179	0.148	0.184	J	mg/L	1	12/08/21 01:17 PM
Surr: Isopropylbenzene	43.5	0	47-142	S	%REC	1	12/08/21 01:17 PM
Surr: Octacosane	87.7	0	51-124		%REC	1	12/08/21 01:17 PM
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	12/07/21 05:33 PM
Surr: Tetrachlorethene	107	0	74-138		%REC	1	12/07/21 05:33 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **JVR**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 05:10 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 05:10 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 05:10 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 05:10 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 05:10 PM
Surr: 1,2-Dichloroethane-d4	89.9	0	72-119		%REC	1	12/06/21 05:10 PM
Surr: 4-Bromofluorobenzene	84.3	0	76-119		%REC	1	12/06/21 05:10 PM
Surr: Dibromofluoromethane	99.2	0	85-115		%REC	1	12/06/21 05:10 PM
Surr: Toluene-d8	89.2	0	81-120		%REC	1	12/06/21 05:10 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Dec-21*

CLIENT:	GHD	**Client Sample ID:**	Trip
Project:	Hobbs Tank	**Lab ID:**	2112039-05
Project No:	11224355	**Collection Date:**	12/01/21
Lab Order:	2112039	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH PURGEABLE BY GC - WATER		**M8015V**					Analyst: **BTJ**
Gasoline Range Organics	<0.0600	0.0600	0.100		mg/L	1	12/07/21 01:42 PM
Surr: Tetrachlorethene	127	0	74-138		%REC	1	12/07/21 01:42 PM
8260 WATER VOLATILES BY GC/MS		**SW8260D**					Analyst: **JVR**
Benzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 01:06 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 01:06 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 01:06 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	12/06/21 01:06 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	12/06/21 01:06 PM
Surr: 1,2-Dichloroethane-d4	91.4	0	72-119		%REC	1	12/06/21 01:06 PM
Surr: 4-Bromofluorobenzene	85.6	0	76-119		%REC	1	12/06/21 01:06 PM
Surr: Dibromofluoromethane	99.9	0	85-115		%REC	1	12/06/21 01:06 PM
Surr: Toluene-d8	89.5	0	81-120		%REC	1	12/06/21 01:06 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *10-Dec-21*

CLIENT: GHD
Work Order: 2112039
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_211208A

The QC data in batch 103080 applies to the following samples: 2112039-01C, 2112039-02C, 2112039-03C, 2112039-04C

Sample ID: **MB-103080** Batch ID: **103080** TestNo: **M8015D** Units: **mg/L**
SampType: **MBLK** Run ID: **GC15_211208A** Analysis Date: **12/8/2021 11:29:02 AM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	<0.0800	0.100								
Surr: Isopropylbenzene	0.0543		0.1000		54.3	47	142			
Surr: Octacosane	0.0849		0.1000		84.9	51	124			

Sample ID: **LCS-103080** Batch ID: **103080** TestNo: **M8015D** Units: **mg/L**
SampType: **LCS** Run ID: **GC15_211208A** Analysis Date: **12/8/2021 11:38:06 AM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	0.876	0.100	1.250	0	70.1	50	114			
Surr: Isopropylbenzene	0.0434		0.1000		43.4	47	142			S
Surr: Octacosane	0.0827		0.1000		82.7	51	124			

Sample ID: **LCSD-103080** Batch ID: **103080** TestNo: **M8015D** Units: **mg/L**
SampType: **LCSD** Run ID: **GC15_211208A** Analysis Date: **12/8/2021 11:47:09 AM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	0.878	0.100	1.250	0	70.2	50	114	0.194	30	
Surr: Isopropylbenzene	0.0427		0.1000		42.7	47	142	0	0	S
Surr: Octacosane	0.0815		0.1000		81.5	51	124	0	0	

Qualifiers:	B	Analyte detected in the associated Method Blank	DF	Dilution Factor	
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit	Page 1 of 4
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits	
	RL	Reporting Limit	S	Spike Recovery outside control limits	
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified	

CLIENT: GHD
Work Order: 2112039
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_211207A

The QC data in batch 103093 applies to the following samples: 2112039-01B, 2112039-02B, 2112039-03B, 2112039-04B, 2112039-05B

Sample ID: **LCS-103093** Batch ID: **103093** TestNo: **M8015V** Units: **mg/L**
SampType: **LCS** Run ID: **GC4_211207A** Analysis Date: **12/7/2021 11:24:01 AM** Prep Date: **12/7/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.59	0.100	2.500	0	104	67	136			
Surr: Tetrachlorethene	0.417		0.4000		104	74	138			

Sample ID: **LCSD-103093** Batch ID: **103093** TestNo: **M8015V** Units: **mg/L**
SampType: **LCSD** Run ID: **GC4_211207A** Analysis Date: **12/7/2021 11:47:25 AM** Prep Date: **12/7/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.55	0.100	2.500	0	102	67	136	1.36	30	
Surr: Tetrachlorethene	0.433		0.4000		108	74	138	0	0	

Sample ID: **MB-103093** Batch ID: **103093** TestNo: **M8015V** Units: **mg/L**
SampType: **MBLK** Run ID: **GC4_211207A** Analysis Date: **12/7/2021 12:55:41 PM** Prep Date: **12/7/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	<0.0600	0.100								
Surr: Tetrachlorethene	0.470		0.4000		118	74	138			

Sample ID: **2112039-04BMS** Batch ID: **103093** TestNo: **M8015V** Units: **mg/L**
SampType: **MS** Run ID: **GC4_211207A** Analysis Date: **12/7/2021 5:56:56 PM** Prep Date: **12/7/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.55	0.100	2.500	0	102	67	136			
Surr: Tetrachlorethene	0.456		0.4000		114	74	138			

Sample ID: **2112039-04BMSD** Batch ID: **103093** TestNo: **M8015V** Units: **mg/L**
SampType: **MSD** Run ID: **GC4_211207A** Analysis Date: **12/7/2021 6:20:15 PM** Prep Date: **12/7/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.68	0.100	2.500	0	107	67	136	4.92	30	
Surr: Tetrachlorethene	0.467		0.4000		117	74	138	0	0	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2112039
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_211206A

The QC data in batch 103086 applies to the following samples: 2112039-01A, 2112039-02A, 2112039-03A, 2112039-04A, 2112039-05A

Sample ID: **LCS-103086** Batch ID: **103086** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS7_211206A** Analysis Date: **12/6/2021 11:16:00 AM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0236	0.00100	0.0232	0	102	81	122			
Ethylbenzene	0.0220	0.00100	0.0232	0	95.0	80	120			
m,p-Xylene	0.0442	0.00200	0.0464	0	95.3	80	120			
o-Xylene	0.0219	0.00100	0.0232	0	94.4	80	120			
Toluene	0.0238	0.00200	0.0232	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	181		200.0		90.6	72	119			
Surr: 4-Bromofluorobenzene	167		200.0		83.3	76	119			
Surr: Dibromofluoromethane	194		200.0		97.0	85	115			
Surr: Toluene-d8	176		200.0		87.9	81	120			

Sample ID: **MB-103086** Batch ID: **103086** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS7_211206A** Analysis Date: **12/6/2021 12:17:00 PM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000300	0.00100								
Ethylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
o-Xylene	<0.000300	0.00100								
Toluene	<0.000600	0.00200								
Surr: 1,2-Dichloroethane-d4	182		200.0		90.9	72	119			
Surr: 4-Bromofluorobenzene	175		200.0		87.4	76	119			
Surr: Dibromofluoromethane	197		200.0		98.7	85	115			
Surr: Toluene-d8	178		200.0		88.8	81	120			

Sample ID: **2112039-01AMS** Batch ID: **103086** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS7_211206A** Analysis Date: **12/6/2021 5:59:00 PM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.227	0.0100	0.232	0.00300	96.7	81	122			
Ethylbenzene	0.199	0.0100	0.232	0	85.9	80	120			
m,p-Xylene	0.397	0.0200	0.464	0	85.6	80	120			
o-Xylene	0.198	0.0100	0.232	0	85.6	80	120			
Toluene	0.226	0.0200	0.232	0	97.5	80	120			
Surr: 1,2-Dichloroethane-d4	1830		2000		91.3	72	119			
Surr: 4-Bromofluorobenzene	1660		2000		83.1	76	119			
Surr: Dibromofluoromethane	2030		2000		102	85	115			
Surr: Toluene-d8	1710		2000		85.4	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: GHD
Work Order: 2112039
Project: Hobbs Tank

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_211206A

Sample ID: **2112039-01AMSD** Batch ID: **103086** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS7_211206A** Analysis Date: **12/6/2021 6:24:00 PM** Prep Date: **12/6/2021**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.226	0.0100	0.232	0.00300	96.0	81	122	0.662	20	
Ethylbenzene	0.203	0.0100	0.232	0	87.4	80	120	1.79	20	
m,p-Xylene	0.405	0.0200	0.464	0	87.3	80	120	1.99	20	
o-Xylene	0.201	0.0100	0.232	0	86.7	80	120	1.35	20	
Toluene	0.225	0.0200	0.232	0	96.9	80	120	0.665	20	
Surr: 1,2-Dichloroethane-d4	1870		2000		93.7	72	119	0	0	
Surr: 4-Bromofluorobenzene	1680		2000		84.0	76	119	0	0	
Surr: Dibromofluoromethane	1990		2000		99.3	85	115	0	0	
Surr: Toluene-d8	1730		2000		86.5	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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

CONDITIONS

Action 102824

CONDITIONS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 102824
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the Site Status Report for 2021: Content Satisfactory 1. Recondition well HTRW-1 by Air Sparging technique. 2. Please continue to sample and monitor wells quarterly or semi-annually as appropriate. 3. Received the 2022 Annual Report. Please submit the 2023 Annual Report by or before April 1, 2024.	8/10/2023