2021 Annual Groundwater Monitoring Report

A-7 Bettis Pipeline Release
Lea County, New Mexico
NMOCD Nos. 1RP-9-5-2186 and 1RP-1540
Incident No. nAPP2214000463

ETC Texas Pipeline, Ltd.

June 01, 2022

→ The Power of Commitment

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1. Introduction

This report presents the results of groundwater monitoring during 2020 at the ETC Texas Pipeline, Ltd. (ETC), A-7 Bettis Pipeline Release site (Site). The Site is located about 2.5 miles north of Eunice, New Mexico in Unit letter L, Sections 14 and 15, Township 21 South, Range 37 East of Lea County (Figure 1). Site coordinates are 32.475367o North, 103.142150o West. Site details are shown on Figure 2. The property at the pipeline release location is owned by Mr. Charlie Bettis of Eunice, New Mexico and the Site is regulated by the New Mexico Oil Conservation Division (NMOCD).

2. Background

The discovery of a section of a 10-inch low pressure natural gas pipeline that had failed was verbally notified to the NMOCD on August 22, 2007. The failure resulted in the release of a mixture of crude oil, produced water, and natural gas. A recent rain shower had contributed an unknown amount of stormwater to the release volume. The “Release Notification and Corrective Action” (Form C-141) indicated a release of approximately 200 barrels (bbls) of fluid, of which 130 bbls of fluid were recovered via vacuum truck. An estimated 81 million cubic feet of natural gas was also released into the atmosphere as a result of the release.

NMOCD Form C-141 (1RP-1540) was submitted and approved by the NMOCD Hobbs District Office on August 31, 2007 and assigned 1RP-1540. On March 24, 2009, the initial Form C-141 was resubmitted and again approved by the NMOCD Hobbs District Office and assigned the NMOCD reference 1RP-9-5-2186.

Horizontal delineation of the impacted area was conducted with the collection and analysis of 10 surface soil samples on February 26, 2009. Between March 12, 2009 and July 10, 2009 approximately 2,550 cubic yards of impacted soil was excavated, stockpiled on-site, and then properly disposed off-site. The dimensions of the excavation were approximately 45 feet wide, 60 feet long, and up to 44 feet in depth. Additional impacted soil remained in place that could not be removed due to safety considerations.

The NMOCD requested a minimum of five soil borings advanced around the perimeter of the excavation in October 2010. Five soil borings (SB), SB-1 through SB-5, were advanced during October 2012 to assess the lateral and vertical extent of soil impacts. SB-1, SB-4, and SB-5 were converted into 2-inch diameter monitoring wells (MW), MW-1, MW-2, and MW-3, to assess impacts to groundwater.

Initial laboratory results indicated that, with the exception of MW-1, the concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) were below the laboratory method detection limits. Total dissolved solids (TDS) concentrations ranged from 777 mg/L to 2,620 mg/L in the samples collected from MW-3 and MW-1, respectively. Chloride concentrations ranged from 103 mg/L to 1,060 mg/L for the samples collected from MW-3 and MW-1, respectively.

The excavation was partially backfilled and compacted with clean imported soil to 15 feet below ground surface (bgs) on November 7, 2012. A 20-millimeter polyethylene liner was installed over the backfilled soil to minimize the vertical migration of contaminants left in situ. The remainder of the excavation was backfilled, compacted, and brought back to grade.

Basin Environmental Services Technologies, LLC (Basin) installed MW-4 through MW-7 on August 28, 2013 to further delineate groundwater impacts. Select soil samples were submitted for laboratory analysis of total petroleum hydrocarbons (TPH) and chlorides. The bottom sample collected from each borehole was submitted for laboratory analysis of BTEX in conjunction with TPH and chlorides. All of the samples submitted for laboratory analysis were below the NMOCD Recommended Remedial Action Limits for the Site.

MW-8 and MW-9 appear to have been installed sometime during late 2014 or early 2015, presumably by Apex. Apex collected groundwater samples from Site wells on July 30, 2014, October 31, 2014, January 21, 2015, and April 21, 2015.

GHD assumed consulting responsibilities for the Site in August 2015. GHD installed MW-10 and MW-11 on December 14, 2015 and December 15, 2015 and conducted a groundwater monitoring event on December 21, 2015.

O-Sox™, passive oxygen release socks, were installed in MW-1 and MW-6 through MW-9 on July 19, 2016 and were replaced on December 9, 2016. However, due to the O-Sox™ swelling in the wells, creating difficulty for removal during replacement, the use of O-Sox™ was discontinued in 2017.

To facilitate the degradation of low-level dissolved phase hydrocarbons in groundwater at the Site, GHD installed an aeration windmill in August of 2019. The windmill is located between MW-6 and MW-8 and is currently set to distribute air into groundwater via air diffusion stones in wells MW-8 and MW-9. The configuration of the diffusion stones can be changed to incorporate different wells as determined by analytical trends.

Semi-annual groundwater monitoring continued at the Site during 2021 and details of the monitoring events are presented in this report.

3. Groundwater Monitoring Summary, Methodology, and Analytical Results

3.1 Groundwater Monitoring Methodology

During the March and October 2021 groundwater monitoring events, groundwater elevation measurements were recorded from Site monitoring wells. An oil/water interface probe was used to measure depth to groundwater and check for the presence of light non-aqueous phase liquids, if any. Before and after each use, the oil/water interface probe was cleaned with an Alconox®/deionized water solution and rinsed with deionized water. Groundwater elevations for the Site are presented in Table 1.

Groundwater flow direction is towards the southeast and is consistent with historical Site data. Groundwater gradients were calculated for March and October 2021 at 0.0028 ft/ft and 0.0009 ft/ft, respectively. Groundwater elevation potentiometric surface maps for each gauging event are included as Figures and Figure 4.

MW-1, MW-3 and MW-6 through MW-11 were sampled during the March 2021 groundwater monitoring events. All wells (MW-1 through MW-11) were sampled during the October 2021 event. During the 2021 groundwater monitoring events each monitoring well was purged of at least three casing volumes of water using a dedicated, polyethylene, bailer prior to sampling. Groundwater quality parameters including pH, temperature, oxidation reduction potential, and conductivity were collected using a cleaned and calibrated multi-parameter groundwater quality meter and were recorded on GHD groundwater sampling field forms. A summary of groundwater parameters is included as Table 2.

Groundwater samples were placed in laboratory-prepared bottles, packed on ice, and delivered under chain-of-custody to Hall Environmental Analysis Laboratory (HEAL) located in Albuquerque, New Mexico. The samples were analyzed for BTEX by Environmental Protection Agency (EPA) Method 8260 and Chlorides by EPA Method 300.0.

3.2 Groundwater Analytical Results

Groundwater collected from MW-2 through MW-5 have been below New Mexico Water Quality Control Commission (NMWQCC) standards since sampling began.

Groundwater collected from MW-1, MW-9 and MW-10 has consistently exceeded the NMWQCC standard for chlorides exceeding during both events in 2021. Groundwater collected from MW-6 exceeded the NMWQCC standard

for chlorides only during the March event. During the most recent sampling event, October 2021, in which all wells were sampled, the concentration of chloride in Site wells ranged from 56 mg/L MW-11 to 1600 mg/L in MW-10. The NMWQCC standard for chloride is 250 mg/L. A concentration map depicting chloride concentrations for 2021 is included as Figure 5.

Considering that MW-10 is located cross gradient of the Site release point and has the highest concentration of chloride in groundwater, compared to concentrations of chloride in samples from MW-1, MW-6, and MW-9, downgradient of the Site release point, it is unlikely that concentrations of chloride in MW-10 are associated with the release discussed in this report. It should also be noted that concentrations of chloride in samples from wells MW-7 and MW-8, wells bisecting MW-10 and wells MW-1, 6, and 9, do not exceed the NMWQCC standard for chloride. Additionally, MW-10 has never had a detection for BTEX constituents again suggesting that MW-10 may not be associated with the A-7 Bettis release and could be associated with another source to the west of the site.

Groundwater collected from MW-1, MW-6, MW-8, and MW-9 had consistently exceeded the NMWQCC standard for benzene up until 2018. This trend continued through 2021 with concentrations of benzene in all site wells below the NMWQC standard. Groundwater collected from Site wells contained concentrations of benzene from below laboratory detection limits to 0.0022mg/L in MW-1. The NMWQCC standard for benzene in groundwater is 0.005 mg/L. Currently Site wells have been below NMWCC standards for benzene since 2019. A concentration map depicting benzene concentrations for 2020 is included as Figure 6.

A summary of the historical groundwater laboratory analytical results is presented in Table 3. Corresponding laboratory analytical reports from 2021 monitoring are included as Appendix A.

4. Aeration Windmill Operation

GHD installed a Koenders aeriation windmill during August of 2019 to introduce oxygen to groundwater and the subsurface in an effort to remediate remaining Benzene concentrations. The windmill provides air via tubing and air diffusion stones to up to three wells anytime wind speeds are between three and 27 miles per hour. The windmill is currently set to supply air to MW-8 and MW-9. The windmill operated from the time of installation in August throughout October 2019.

Concentrations of benzene in MW-8 decreased from 0.0015 mg/L in May 2019 to <0.00100 mg/L during the November 2019 monitoring event and have remained below laboratory reporting limits (LRL) during the 2020 monitoring events. Concentrations of benzene in MW-9 decreased from 0.0085 mg/L, exceeding the NMWQCC standard, in May 2019 to a concentration of 0.0025 mg/L, below the NMWQCC standard of 0.005 mg/L during the November 2019 monitoring event and have remained at essentially this level .

The windmill was operated in 2020 from March through September when it was discovered that the tubing leading from the windmill to the sparge wells had been compromised, likely by wildlife, and was in unusable condition. Analytical results from groundwater samples collected since discontinuation of windmill operation in 2020 suggest that benzene concentrations in groundwater remain below NMWQCC standard and further operation of the windmill is not recommended at this time.

5. Conclusions and 2022 Recommendations

5.1 Conclusions

Based on the above information, GHD makes the following conclusions:

- Groundwater samples collected from MW-2 through MW-5 have been below NMWQCC standards since sampling began.
- Groundwater collected from MW-1, MW-6, MW-9 and MW-10 exceed the NMWQCC standard for chlorides. Concentrations of chloride in samples collected from monitoring wells downgradient of the Site release point in MW-1, MW-6, and MW-9 are only slightly above standard.
- Groundwater collected from MW-10 has exceeded the NMWQCC standard for chloride since the initial sampling performed in December 2015. This well is located to the west and cross gradient of the apparent A-7 Bettis chloride plume which may indicate a secondary release from another source to the west of the site and northeast of MW-10. A possibly source to the west of the Site is the former 12-mil poly lined earthen drilling pit associated with Apache Corporation (Apache) well Northeast Drinkard Unit (NEDU) #719. See Appendix B.
- In the latest sampling event in October 2021 concentrations of benzene in all Site monitoring wells were below laboratory detection limits.

5.2 2022 Recommendations

Due to the above conclusions, GHD recommends:

- Continue sampling MW-1, MW-2, and MW-6 through MW-11 on a semi-annual basis.
- MW-3, MW-4, and MW-5 will be sampled on an annual basis and will coincide with the second semi-annual event. These wells have never exceeded the NMWQCC standard for target constituents.
- Request no further action status for the Site based on BTEX concentrations having been below NMWQCC standards since 2019 and chloride concentrations in wells MW-1, MW-6, and MW-9 downgradient of the A-7 Bettis release point being only slightly over standard.

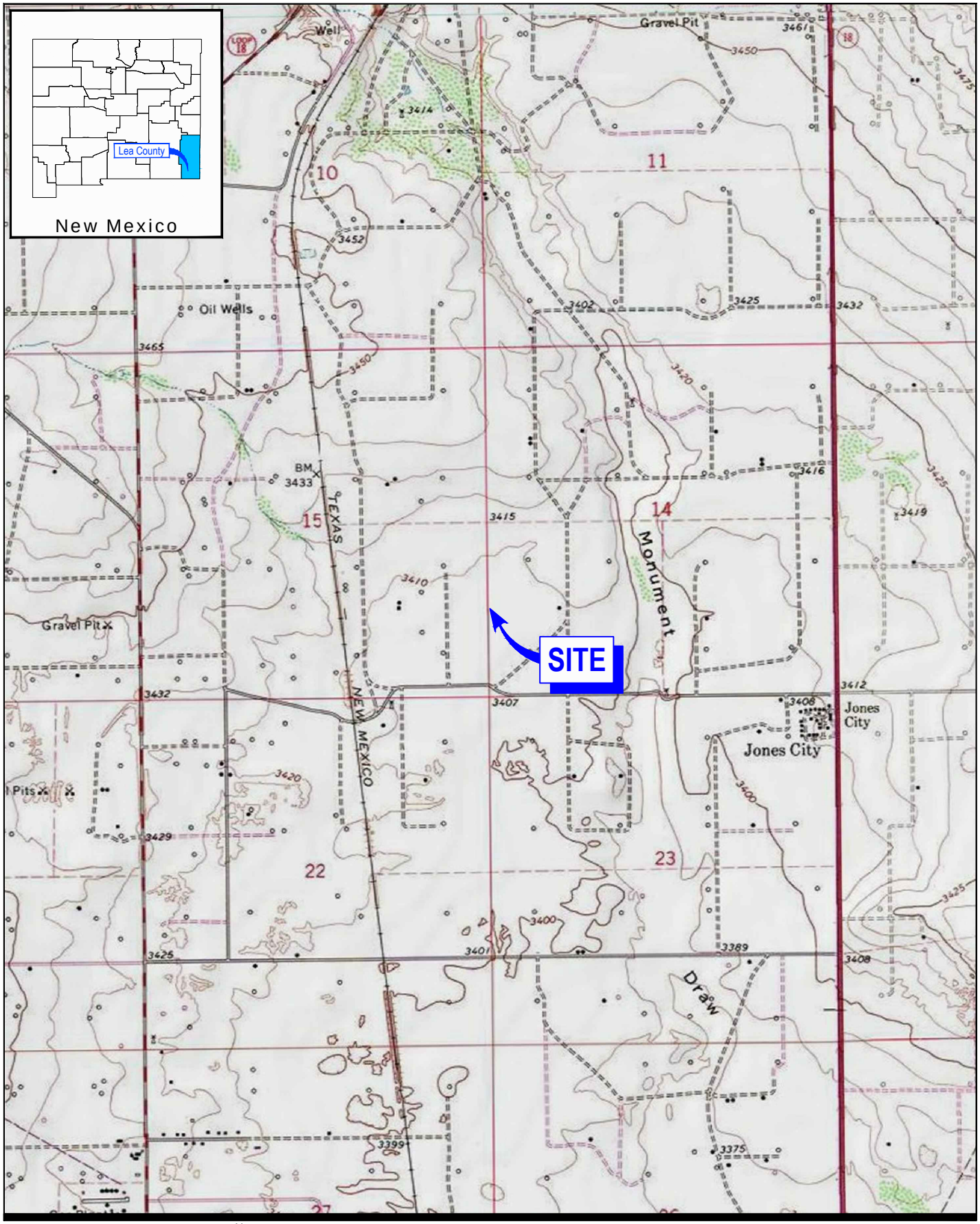
All of Which is Respectfully Submitted,

GHD

Charles Neligh
Project Scientist

Christine Mathews
Project Manager

Figures



0 1000 2000 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD
LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

Project No. **11209049**
Date **May 2022**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\11209049\Digital_Design\ACAD 2017\Figures\RPT006\11209049-GHD-0000-RPT-EN-0101_DL-006.dwg

Data Source: USGS 7.5 Minute Quad "Eunice and Eunice NE, New Mexico"
Lat/Long: 32.47536° North, 103.14215° West

LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD
LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

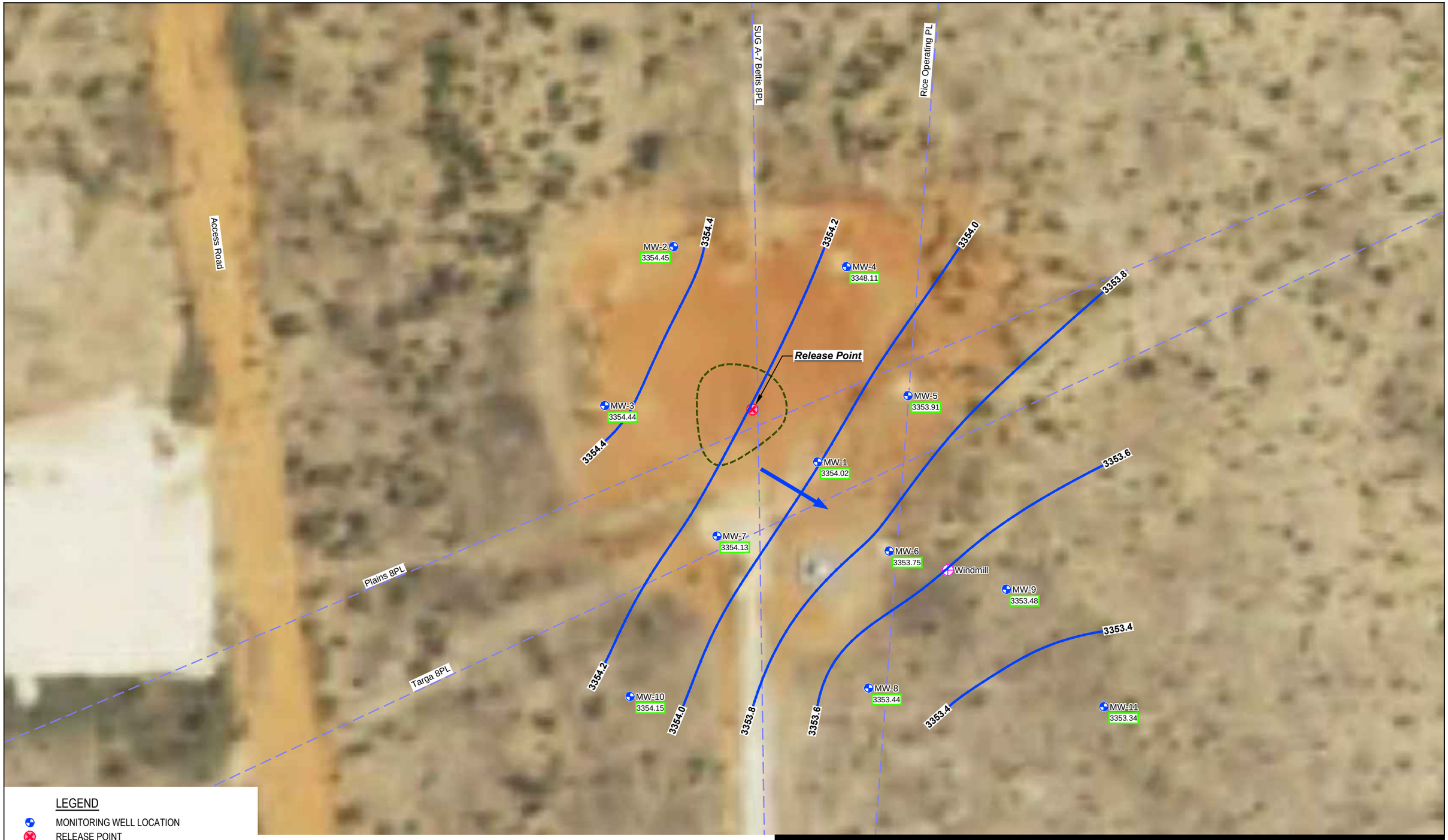
Project No. **11209049**
Date **May 2022**

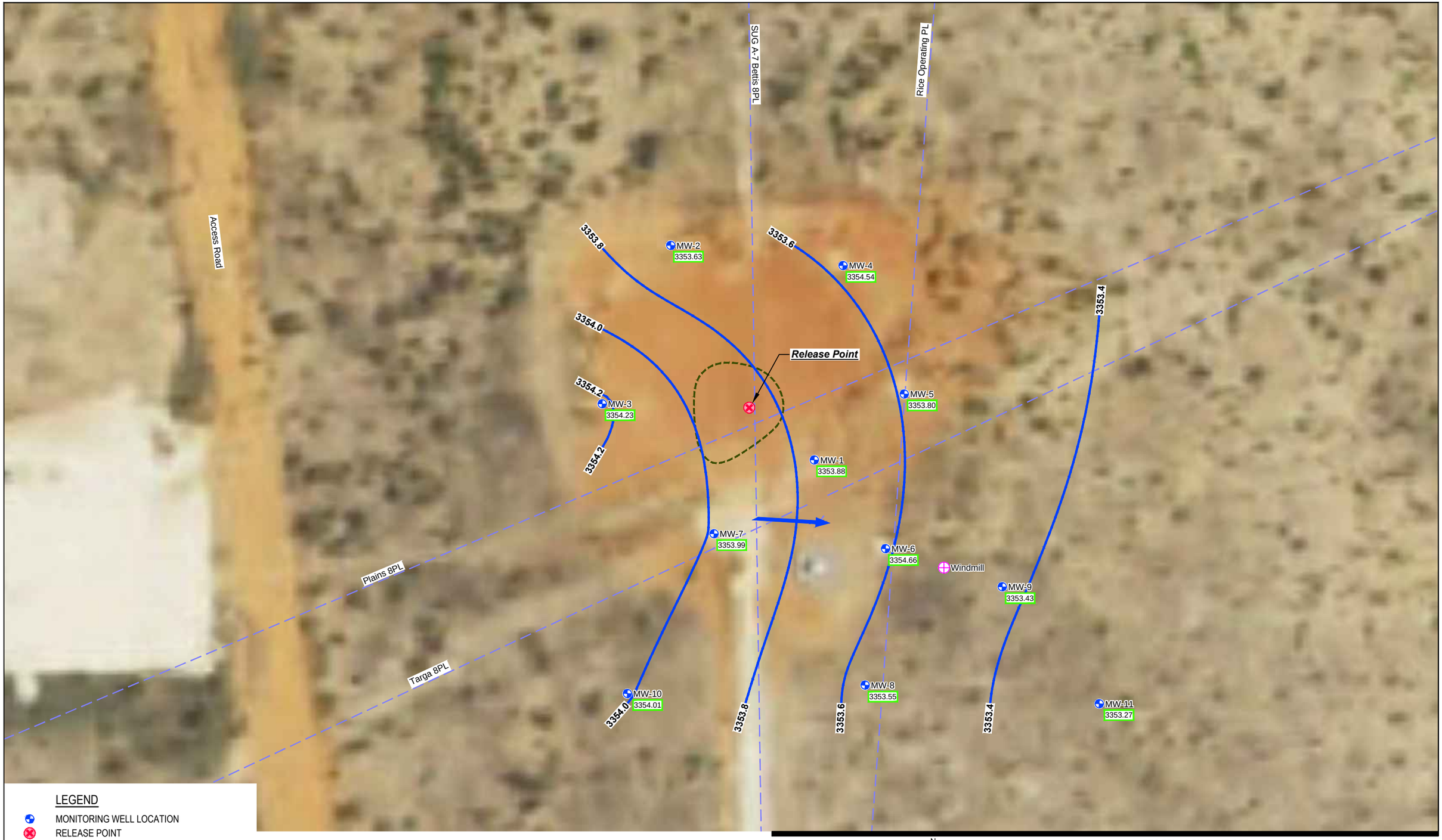
SITE PLAN

FIGURE 2

Filename: \\ghdnetlab01\US\Albuquerque\Projects\52\11209049\Digital_Design\ACAD 2017\Figures\RPT006\11209049-GHD-0000-RPT-EN-0101_DL-006.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West





LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 0.20 FT)
- 3354.01 ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW

NOTE:

1. MW-1, MW-4, MW-5, AND MW-6 WERE NOT USED IN CONTOURING.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

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LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

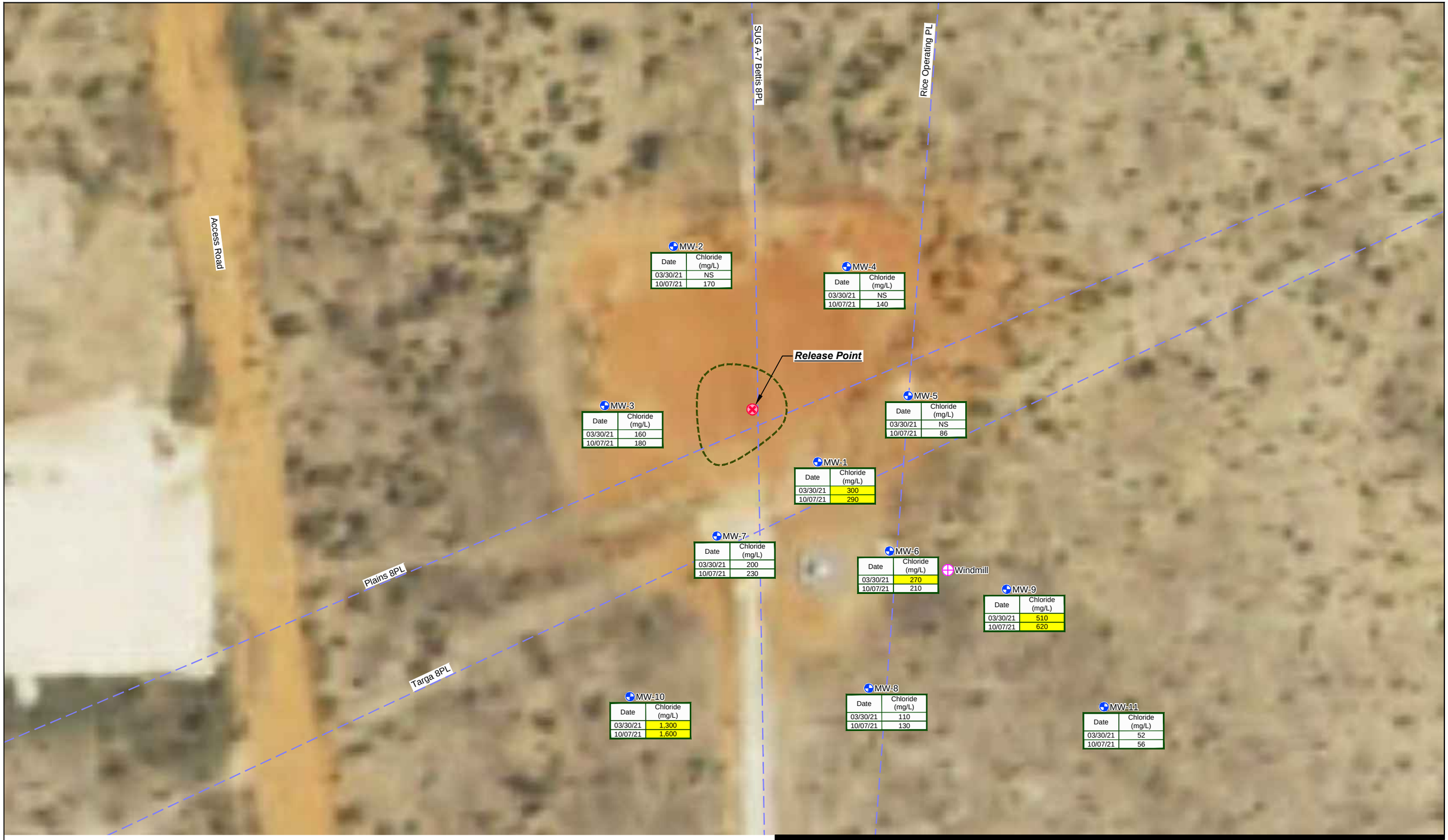
OCTOBER 2021 GROUNDWATER POTENTIOMETRIC SURFACE MAP

Project No. 11209049
Date May 2022

FIGURE 4

Filename: \\ghdnetfob01\US\Albuquerque\Projects\52\11209049\Digital_Design\ACAD 2017\Figures\RPT006\11209049-GHD-0000-RPT-EN-0101_DL-006.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West



LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

NOTE:

1. CONCENTRATIONS SHADED YELLOW EXCEED NMWQCC REGULATORY LIMITS.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD
LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

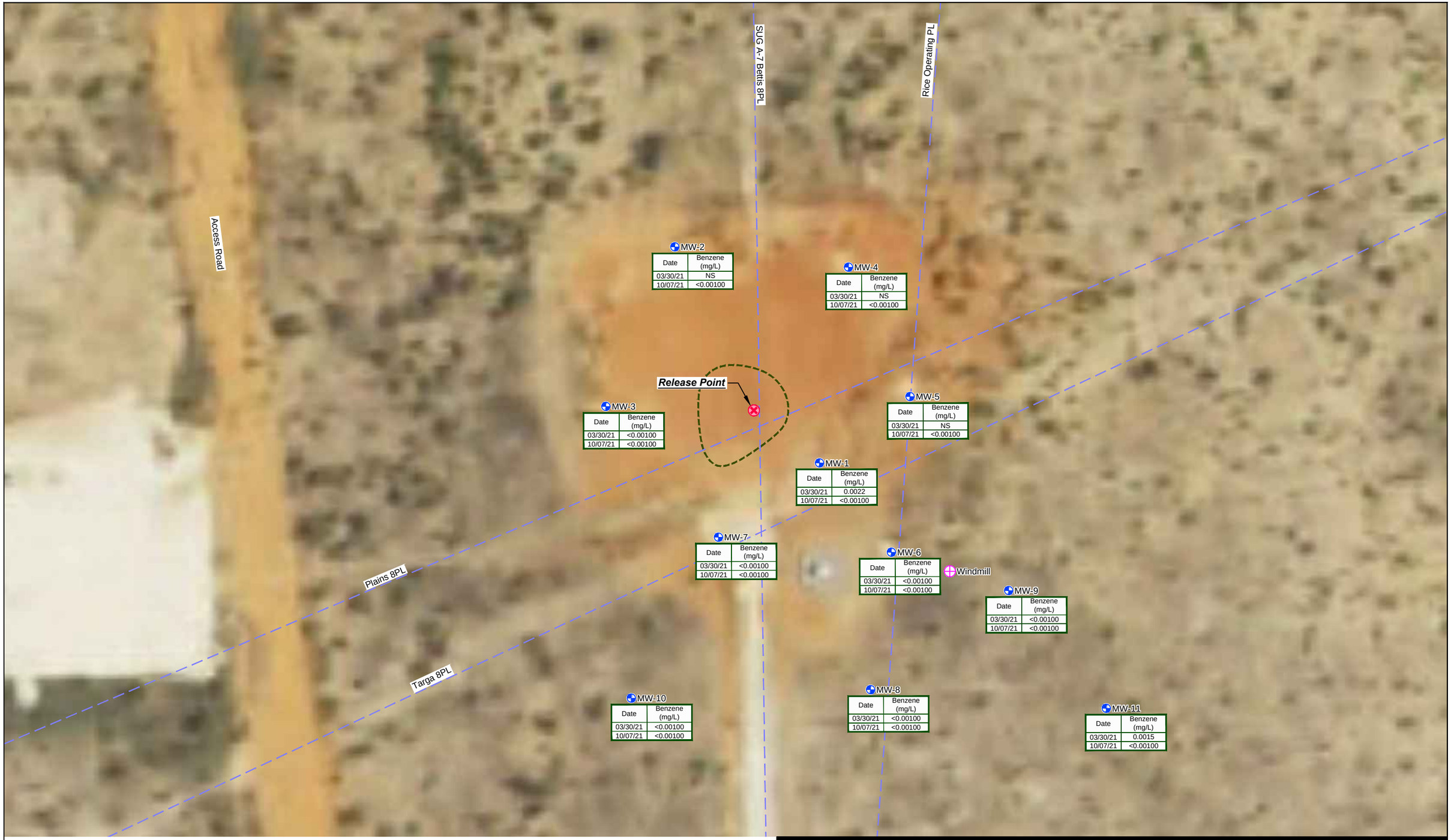
Project No. **11209049**
Date **May 2022**

CHLORIDE IN GROUNDWATER MAP - 2021

FIGURE 5

Filename: \\ghdnetfile\US\Albuquerque\Projects\52\11209049\Digital_Design\ACAD 2017\Figures\RPT006\11209049-GHD-0000-RPT-EN-0101_DL-006.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West



LEGEND

- MONITORING WELL LOCATION
- RELEASE POINT
- SUBSURFACE PIPELINE
- EXCAVATION LIMITS

NOTE:

1. CONCENTRATIONS SHADED YELLOW EXCEED NMWQCC REGULATORY LIMITS.

0 30 60 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

ETC TEXAS PIPELINE, LTD
LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

BENZENE IN GROUNDWATER MAP - 2021

Project No. **11209049**
Date **May 2022**

FIGURE 6

Filename: \\ghdnet\ghd\US\Albuquerque\Projects\562\11209049\Digital_Design\ACAD 2017\Figures\RPT006\11209049-GHD-0000-RPT-EN-0101_DL-006.dwg

Data Source: NAIP Imagery, New Mexico 2014
Lat/Long: 32.47536° North, 103.14215° West

Tables

Table 1
Monitor Well Specifications And Groundwater Elevation
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Well Number	Top of Casing (TOC) Elevation	Total Depth (ft below TOC)	Date Measured	Depth to LNAPL (ft below TOC)	Depth to Water (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-1	3,413.64	74.28	2/7/2013	-	59.82	-	3,353.82
			5/10/2013	-	59.36	-	3,354.28
			9/3/2013	-	59.91	-	3,353.73
			7/30/2014	-	59.19	-	3,354.45
			10/31/2014	-	59.13	-	3,354.51
			1/21/2015	-	58.99	-	3,354.65
			4/21/2015	-	58.96	-	3,354.68
			12/21/2015	-	59.04	-	3,354.60
			6/1/2016	-	58.95	-	3,354.69
			12/8/2016	-	58.93	-	3,354.71
			5/9/2017	-	58.85	-	3,354.79
			11/15/2017	-	58.95	-	3,354.69
			5/10/2018	-	58.95	-	3,354.69
			5/17/2018	-	59.00	-	3,354.64
			11/12/2018	-	58.76	-	3,354.88
			5/14/2019	-	59.22	-	3,354.42
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	59.43	-	3,354.21
			3/23/2020	-	59.41	-	3,354.23
			9/23/2020	-	59.51	-	3,354.13
			3/30/2021	-	59.62	-	3,354.02
			10/7/2021	-	59.76	-	3,353.88
MW-2	3,412.88	74.18	2/7/2013	-	59.10	-	3,353.78
			5/10/2013	-	58.20	-	3,354.68
			9/3/2013	-	58.21	-	3,354.67
			7/30/2014	-	58.02	-	3,354.86
			10/31/2014	-	57.91	-	3,354.97
			1/21/2015	-	57.75	-	3,355.13
			4/21/2015	-	57.76	-	3,355.12
			12/21/2015	-	57.84	-	3,355.04
			6/1/2016	-	57.79	-	3,355.09
			12/8/2016	-	57.78	-	3,355.10
			5/9/2017	-	57.71	-	3,355.17
			11/15/2017	-	57.75	-	3,355.13
			5/10/2018	-	57.75	-	3,355.13
			5/17/2018	-	57.77	-	3,355.11
			11/12/2018	-	57.97	-	3,354.91
			5/14/2019	-	57.97	-	3,354.91
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.20	-	3,354.68
			3/23/2020	-	58.19	-	3,354.69
			9/23/2020	-	58.34	-	3,354.54
			3/30/2021	-	58.43	-	3,354.45
			10/7/2021	-	59.25	-	3,353.63

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ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Well Number	Top of Casing (TOC) Elevation	Total Depth (ft below TOC)	Date Measured	Depth to LNAPL (ft below TOC)	Depth to Water (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-3	3,412.96	74.04	2/7/2013	-	58.49	-	3,354.47
			5/10/2013	-	58.35	-	3,354.61
			9/3/2013	-	58.32	-	3,354.64
			7/30/2014	-	58.26	-	3,354.70
			10/31/2014	-	58.19	-	3,354.77
			1/21/2015	-	58.01	-	3,354.95
			4/21/2015	-	58.96	-	3,354.00
			12/21/2015	-	58.04	-	3,354.92
			6/1/2016	-	57.93	-	3,355.03
			12/8/2016	-	58.94	-	3,354.02
			5/9/2017	-	57.82	-	3,355.14
			11/15/2017	-	57.88	-	3,355.08
			5/10/2018	-	58.82	-	3,354.14
			5/17/2019	-	58.80	-	3,354.16
			11/12/2018	-	58.87	-	3,354.09
			5/14/2019	-	58.07	-	3,354.89
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.28	-	3,354.68
			3/23/2020	-	58.29	-	3,354.67
			9/23/2020	-	58.43	-	3,354.53
			3/30/2021	-	58.52	-	3,354.44
			10/7/2021	-	58.73	-	3,354.23
MW-4	3,413.15	72.65	9/3/2013	-	59.18	-	3,353.97
			7/30/2014	-	58.62	-	3,354.53
			10/31/2014	-	58.47	-	3,354.68
			1/21/2015	-	58.33	-	3,354.82
			4/21/2015	-	58.31	-	3,354.84
			12/21/2015	-	58.36	-	3,354.79
			6/1/2016	-	58.32	-	3,354.83
			12/8/2016	-	58.31	-	3,354.84
			5/9/2017	-	58.25	-	3,354.90
			11/15/2017	-	58.34	-	3,354.81
			5/10/2018	-	58.38	-	3,354.77
			5/17/2018	-	58.40	-	3,354.75
			11/12/2018	-	58.51	-	3,354.64
			5/14/2019	-	58.60	-	3,354.55
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.82	-	3,354.33
			3/23/2020	-	58.81	-	3,354.34
			9/23/2020	-	58.95	-	3,354.20
			3/30/2021	-	65.04	-	3,348.11
			10/7/2021	-	58.61	-	3,354.54

Table 1
Monitor Well Specifications And Groundwater Elevation
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Well Number	Top of Casing (TOC) Elevation	Total Depth (ft below TOC)	Date Measured	Depth to LNAPL (ft below TOC)	Depth to Water (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-5	3,413.53	73.32	9/3/2013	-	59.23	-	3,354.30
			7/30/2014	-	59.14	-	3,354.39
			10/31/2014	-	59.12	-	3,354.41
			1/21/2015	-	58.93	-	3,354.60
			4/21/2015	-	58.97	-	3,354.56
			6/1/2016	-	58.90	-	3,354.63
			12/8/2016	-	58.87	-	3,354.66
			5/9/2017	-	58.82	-	3,354.71
			11/15/2017	-	58.90	-	3,354.63
			5/10/2018	-	58.92	-	3,354.61
			5/17/2018	-	58.92	-	3,354.61
			11/12/2018	-	58.92	-	3,354.61
			5/14/2019	-	59.23	-	3,354.30
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	59.40	-	3,354.13
			3/23/2020	-	59.40	-	3,354.13
			9/23/2020	-	59.63	-	3,353.90
			3/30/2021	-	59.62	-	3,353.91
			10/7/2021	-	59.73	-	3,353.80
MW-6	3,413.30	69.21	9/3/2013*	-	59.10	-	3,354.20
			7/30/2014	-	59.03	-	3,354.27
			10/31/2014	-	59.06	-	3,354.24
			1/21/2015	-	58.94	-	3,354.36
			4/21/2015	-	58.95	-	3,354.35
			12/21/2015	-	58.89	-	3,354.41
			6/1/2016	-	58.81	-	3,354.49
			12/8/2016	-	58.80	-	3,354.50
			5/9/2017	-	58.74	-	3,354.56
			11/15/2017	-	58.80	-	3,354.50
			5/10/2018	-	58.82	-	3,354.48
			5/17/2018	-	58.80	-	3,354.50
			11/12/2018	-	58.82	-	3,354.48
			5/14/2019	-	59.14	-	3,354.16
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	59.30	-	3,354.00
			3/23/2020	-	59.28	-	3,354.02
			9/23/2020	-	59.40	-	3,353.90
			3/30/2021	-	59.55	-	3,353.75
			10/7/2021	-	58.64	-	3,354.66

Table 1
Monitor Well Specifications And Groundwater Elevation
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Well Number	Top of Casing (TOC) Elevation	Total Depth (ft below TOC)	Date Measured	Depth to LNAPL (ft below TOC)	Depth to Water (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-7	3,413.01	72.14	9/3/2013	-	58.62	-	3,354.39
			7/30/2014	-	58.53	-	3,354.48
			10/31/2014	-	58.57	-	3,354.44
			1/21/2015	-	58.44	-	3,354.57
			4/21/2015	-	58.35	-	3,354.66
			12/21/2015	-	58.36	-	3,354.65
			6/1/2016	-	58.27	-	3,354.74
			12/8/2016	-	58.27	-	3,354.74
			5/9/2017	-	58.16	-	3,354.85
			11/15/2017	-	58.23	-	3,354.78
			5/10/2018	-	58.22	-	3,354.79
			5/17/2018	-	58.12	-	3,354.89
			11/12/2018	-	58.12	-	3,354.89
			5/14/2019	-	58.49	-	3,354.52
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.69	-	3,354.32
			3/23/2020	-	58.66	-	3,354.35
			9/23/2020	-	58.79	-	3,354.22
			3/30/2021	-	58.88	-	3,354.13
			10/7/2021	-	59.02	-	3,353.99
MW-8	3,412.02	71.66	1/21/2015	-	57.84	-	3,354.18
			4/21/2015	-	57.75	-	3,354.27
			12/21/2015	-	57.75	-	3,354.27
			6/1/2016	-	57.65	-	3,354.37
			12/8/2016	-	57.62	-	3,354.40
			5/9/2017	-	57.65	-	3,354.37
			11/15/2017	-	57.60	-	3,354.42
			5/10/2018	-	57.70	-	3,354.32
			5/17/2018	-	57.73	-	3,354.29
			11/12/2018	-	57.63	-	3,354.39
			5/14/2019	-	57.98	-	3,354.04
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.41	-	3,353.61
			3/23/2020	-	58.33	-	3,353.69
			9/23/2020	-	58.45	-	3,353.57
			3/30/2021	-	58.58	-	3,353.44
			10/7/2021	-	58.47	-	3,353.55

Table 1
Monitor Well Specifications And Groundwater Elevation
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Well Number	Top of Casing (TOC) Elevation	Total Depth (ft below TOC)	Date Measured	Depth to LNAPL (ft below TOC)	Depth to Water (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft AMSL)
MW-9	3,412.38	71.34	1/21/2015	-	58.21	-	3,354.17
			4/21/2015	-	58.10	-	3,354.28
			12/21/2015	-	58.10	-	3,354.28
			6/1/2016	-	58.02	-	3,354.36
			12/8/2016	-	58.00	-	3,354.38
			5/9/2017	-	58.00	-	3,354.38
			11/15/2017	-	58.08	-	3,354.30
			5/10/2018	-	58.10	-	3,354.28
			5/17/2018	-	58.10	-	3,354.28
			11/12/2018	-	58.05	-	3,354.33
			5/14/2019	-	58.45	-	3,353.93
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.64	-	3,353.74
			3/23/2020	-	58.66	-	3,353.72
			9/23/2020	-	58.50	-	3,353.88
			3/30/2021	-	58.90	-	3,353.48
			10/7/2021	-	58.95	-	3,353.43
MW-10	3411.86	70.32	12/21/2015	-	57.24	-	3354.62
			6/1/2016	-	57.15	-	3354.71
			12/8/2016	-	57.10	-	3354.76
			5/9/2017	-	57.01	-	3354.85
			11/15/2017	-	57.03	-	3354.83
			5/10/2018	-	57.06	-	3354.80
			5/17/2018	-	57.09	-	3354.77
			11/12/2018	-	57.00	-	3354.86
			5/14/2019	-	57.32	-	3354.54
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	57.53	-	3354.33
			3/23/2020	-	57.49	-	3354.37
			9/23/2020	-	57.70	-	3354.16
			3/30/2021	-	57.71	-	3354.15
			10/7/2021	-	57.85	-	3354.01
MW-11	3412.14	70.32	12/21/2015	-	58.01	-	3354.13
			6/1/2016	-	57.92	-	3354.22
			12/8/2016	-	57.92	-	3354.22
			5/9/2017	-	57.86	-	3354.28
			11/15/2017	-	57.98	-	3354.16
			5/10/2018	-	58.07	-	3354.07
			5/17/2018	-	57.06	-	3355.08
			11/12/2018	-	58.03	-	3354.11
			5/14/2019	-	58.43	-	3353.71
			11/12/2019	Electronic Field Data Lost			
			1/16/2020	-	58.56	-	3353.58
			3/23/2020	-	58.50	-	3353.64
			9/23/2020	-	58.65	-	3353.49
			3/30/2021	-	58.80	-	3353.34
			10/7/2021	-	58.87	-	3353.27

Notes:
ft = feet

LNAPL = Light non-aqueous phase liquid
AMSL = Above mean sea level

Table 2
Field Parameter Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Date	Temperature (°C)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Conductivity (mS/cm)
MW-1	7/30/2014	27	6.71	4.1	-128.5	4435
	10/30/2014	No Parameters Collected				
	1/21/2015	8.2	7.76	28.9	-31.6	2884
	4/21/2015	21	6.66	3.6	3.2	3785
	12/21/2015	19.89	6.89	3.56	-90.7	3846
	6/1/2016	20.4	6.76	1.71	-123.9	2940
	12/9/2016	19	6.37	5.22	-113.7	2559
	5/9/2017	19.39	6.93	2.05	-146.8	3018
	11/15/2017	18	7.17	2.16	-45.3	4070
	5/17/2018	18.87	6.73	-	-181	3955
	11/12/2018	16.48	6.95	4.51	-119.9	4801
	5/14/2019	17.39	6.3	4.25	-153.4	3289
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.59	6.64	2.6	-200	3303
	9/23/2020	19.9	7.17	3.01	-72.9	1875
	3/30/2021	20.53	7.02	1.24	-98	1670
	10/7/2021	20.46	7.19	1.43	-119.7	1190
MW-2	7/31/2014	24.4	7.05	21.5	215	1509
	10/30/2014	No Parameters Collected				
	1/21/2015	12.9	7.4	23.1	242.3	1654
	4/21/2015	19.3	6.94	4.1	322.2	1648
	12/21/2015	19.59	7.31	3.06	-41.4	1956
	6/1/2016	20.1	6.93	1.93	37.4	1650
	12/9/2016	18.61	6.97	1.76	-112.7	1640
	5/9/2017	19.06	6.37	2.72	-58.5	1676
	11/15/2017	17.54	7.39	2.99	107.6	1978
	5/17/2018	18.51	6.97	-	-61.8	1631
	11/12/2018	17.35	7.12	5.33	-103	1709
	5/14/2019	17.6	6.66	4.97	-66.4	1456
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.6	6.82	3.23	9.0	1778
	9/23/2020	20.5	7.25	2.31	38.4	1401
	10/7/2021	20.71	7.32	1.71	20.83	912
MW-3	7/31/2014	21	7.13	16.1	571	1173
	10/30/2014	No Parameters Collected				
	1/21/2015	9.7	7.71	52.3	408.7	1425
	4/21/2015	18.7	7.12	38.1	256.1	1353
	12/21/2015	19.7	7.36	3.11	-55.3	1468
	11/15/2017	17.81	7.55	2.44	117.7	1599
	5/17/2018	No Parameters Collected				
	11/12/2018	15.65	7.34	4.88	-101.1	1389
	11/12/2019	Electronic Field Data Lost				
	9/23/2020	21.81	7.35	2.76	136.8	1259
	3/30/2021	20.17	7.24	1.08	247	1137
	10/7/2021	20.61	7.38	1.97	133.3	861

Table 3
Groundwater Analytical Results Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)
NMWQCC Groundwater Quality Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-1	2/7/2013*	**0.51600**	<0.00100	0.06880	0.02910	**1,200**
	5/10/2013*	**0.55100**	0.09150	0.14600	0.11400	**901**
	9/3/2013*	**0.00500**		0.01720	0.03660	**561**
	2/28/2014*	**0.39500**	<0.00200	0.08500	0.03500	**1,220**
	7/30/2014	<0.00100	<0.00200	<0.00100	0.01780	**1,190**
	10/31/2014	**0.00500**		0.06710	<0.00100	**871**
	1/21/2015	**0.13700**	<0.0500	0.11100	<0.05000	**618**
	4/21/2015	**0.10400**	<0.00100	0.03240	<0.00100	**845**
	12/21/2015	**0.00500**		0.01100	0.00210	**890**
	6/1/2016	**0.02100**	<0.00100	0.00730	<0.00150	**850**
	12/9/2016	0.00300	<0.00100	0.00200	<0.00150	**600**
	5/9/2017	**0.00500**		0.00480	<0.00150	**650**
	11/15/2017	**0.00960**	<0.00100	0.00280	<0.00150	**700**
	5/10/2018	-	-	-	-	**490**
	5/17/2018	**0.00500**	<0.00100	0.00520	<0.00150	**-**
	11/12/2018	0.00300	<0.00100	0.00160	<0.00150	**1,400**
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	**1,200**
	11/12/2019	0.00500		<0.00100	<0.00200	**860**
	3/23/2020	0.00180	<0.00100	<0.00100	<0.00150	**710**
	9/23/2020	0.00220	<0.00100	<0.00100	<0.00150	**410**
	3/30/2021	0.00220	<0.00100	<0.00100	<0.00150	**300**
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	**290**
MW-2	2/7/2013*	<0.00100	<0.00200	<0.00100	<0.00200	142
	5/10/2013*	<0.00100	<0.00200	<0.00100	<0.00200	138
	9/3/2013*	0.00500	<0.00100	<0.00100	<0.00200	139
	2/28/2014*	<0.00100	<0.00200	<0.00100	<0.00100	134
	7/31/2014	<0.00100	<0.00200	<0.00100	<0.00100	144
	10/31/2014	0.00500	<0.00100	<0.00100	<0.00100	168
	1/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	167
	4/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	159
	12/21/2015	<0.00100	<0.00100	<0.00100	<0.00150	170
	6/1/2016	<0.00100	<0.00100	<0.00100	<0.00150	180
	12/9/2016	<0.00100	<0.00100	<0.00100	<0.00150	190
	5/9/2017	<0.00100	<0.00100	<0.00100	<0.00150	190
	11/15/2017	<0.00100	<0.00100	<0.00100	<0.00150	170
	5/10/2018	-	-	-	-	67
	5/17/2018	<0.00100	<0.00100	<0.00100	<0.00150	-
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	190
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	180
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	170
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	180
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	160
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	170

Table 3
Groundwater Analytical Results Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)
NMWQCC Groundwater Quality Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-3	2/7/2013*	<0.00100	<0.00200	<0.00100	<0.00200	102
	5/10/2013*	<0.00100	<0.00200	<0.00100	<0.00200	91.3
	9/3/2013*	<0.00100	<0.00100	<0.00100	<0.00200	75.9
	2/28/2014*	<0.00100	<0.00200	<0.00100	<0.00100	95.4
	7/31/2014	<0.00100	<0.00200	<0.00100	<0.00100	89.9
	10/31/2014	0.00460	<0.00100	<0.00100	<0.00100	114
	1/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	111
	4/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	114
	12/21/2015	<0.00100	<0.00100	<0.00100	<0.00150	110
	6/1/2016	Not Sampled				
	12/9/2016	Not Sampled				
	5/9/2017	Not Sampled				
	11/15/2017	<0.00100	<0.00100	<0.00100	<0.00150	130
	5/17/2018	Not Sampled				
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	130
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	130
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	150
	3/30/2021	<0.00100	<0.00100	<0.00100	<0.00150	160
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	180
MW-4	9/3/2013*	<0.00100	<0.00100	<0.00100	<0.00100	86.9
	2/28/2014*	<0.00100	<0.00200	<0.00100	<0.00100	89.7
	7/30/2014	<0.00100	<0.00200	<0.00100	<0.00100	98.8
	10/31/2014	<0.00100	<0.00100	<0.00100	<0.00100	106
	1/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	131
	4/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	120
	12/21/2015	<0.00100	<0.00100	<0.00100	<0.00150	120
	6/1/2016	Not Sampled				
	12/9/2016	Not Sampled				
	5/9/2017	Not Sampled				
	11/15/2017	<0.00100	<0.00100	<0.00100	<0.00150	98
	5/17/2018	Not Sampled				
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	100
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	89
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	100
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	140
MW-5	9/3/2013*	0.00200	<0.00100	<0.00100	<0.00100	85.7
	2/28/2014*	<0.00100	<0.00200	<0.00100	<0.00100	87.1
	7/30/2014	<0.00100	<0.00200	<0.00100	0.00410	73.4
	10/31/2014	0.00440	<0.00100	<0.00100	0.01450	77.1
	1/21/2015	<0.00100	<0.00100	<0.00100	0.00280	69.9
	4/21/2015	<0.00100	<0.00100	<0.00100	0.00970	73.3
	12/21/2015	Not Sampled				
	6/1/2016	Not Sampled				
	12/9/2016	Not Sampled				
	5/9/2017	Not Sampled				
	11/15/2017	<0.00100	<0.00100	<0.00100	<0.00150	73
	5/17/2018	Not Sampled				
	11/12/2018	0.00170	<0.00100	<0.00100	<0.00150	64
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	78
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	86
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	86

Table 3
Groundwater Analytical Results Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)
NMWQCC Groundwater Quality Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-6	9/3/2013*	**0.4690**	<0.00100	0.00613	0.03420	**906**
	2/28/2014*	**0.8510**	<0.00100	0.01850	0.05900	**1,290**
	7/30/2014	<0.00100	<0.00200	0.00965	0.01030	**1,010**
	10/31/2014	**0.6470**	<0.05000	<0.05000	0.36800	**1,420**
	1/21/2015	**0.4400**	<0.05000	<0.05000	<0.05000	**429**
	4/21/2015	**0.7900**	<0.05000	<0.05000	<0.05000	**1,190**
	12/21/2015	**0.2000**	<0.00100	0.00220	0.00340	**1,700**
	6/2/2016	**0.0990**	<0.00100	0.00260	0.00390	**1,500**
	12/9/2016	**0.0160**	<0.00100	0.00130	0.00150	**1,400**
	5/9/2017	**0.0120**	<0.00100	0.00140	0.00160	**1,100**
	11/15/2017	0.0027	<0.00100	<0.00100	<0.00150	**1,200**
	5/10/2018	-	-	-	-	**560**
	5/17/2018	0.0026	<0.00100	0.0017	<0.00150	**-**
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	**390**
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	**410**
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	**380**
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	**360**
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	**250**
	3/30/2021	<0.00100	<0.00100	<0.00100	<0.00150	**270**
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	210
MW-7	9/3/2013*	**0.0842**	<0.00100	<0.00100	<0.00200	91.0
	2/28/2014*	**0.0606**	<0.00200	0.0015	<0.00100	88.3
	7/30/2014	<0.00100	<0.00200	<0.00100	<0.00100	70.6
	10/31/2014	**0.0351**	<0.00100	0.0029	0.0066	72.2
	1/21/2015	**0.0169**	<0.00100	<0.00100	<0.00100	46.6
	4/21/2015	**0.0123**	<0.00100	<0.00100	<0.00100	<25.0
	12/21/2015	**0.0082**	<0.00100	<0.00100	<0.00150	110
	6/2/2016	**0.0110**	<0.00100	<0.00100	<0.00150	99
	6/2/2016 (DUP)	**0.0120**	<0.00100	<0.00100	<0.00150	100
	12/9/2016	0.0031	<0.00100	<0.00100	<0.00150	94
	12/9/2016 (DUP)	0.0031	<0.00100	<0.00100	<0.00150	-
	5/9/2017	**0.0078**	<0.00100	<0.00100	<0.00150	88
	11/15/2017	0.0015	<0.00100	<0.00100	<0.00150	96
	5/10/2018	-	-	-	-	32
	5/17/2018	<0.00100	<0.00100	<0.00100	<0.00150	-
	11/12/2018	0.0011	<0.00100	<0.00100	<0.00150	150
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	170
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	130
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	190
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	180
	3/30/2021	<0.00100	<0.00100	<0.00100	<0.00150	200
	12/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	230

Table 3
Groundwater Analytical Results Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)
NMWQCC Groundwater Quality Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-8	1/21/2015	<0.00100	<0.00100	<0.00100	0.0012	**362**
	4/21/2015	<0.00100	<0.00100	<0.00100	<0.00100	184
	12/22/2015	**0.0220**	<0.00100	0.0025	<0.00150	190
	6/2/2016	**0.0510**	<0.00100	0.0060	<0.00150	170
	12/9/2016	**0.0110**	<0.00100	0.0032	<0.00150	190
	5/9/2017	**0.0580**	<0.00100	0.0055	<0.00150	180
	11/15/2017	**0.0210**	<0.00100	0.0029	<0.00150	180
	5/10/2018	**-**	-	-	-	98
	5/17/2018	0.0011	<0.00100	<0.00100	<0.00150	-
	11/12/2018	0.0011	<0.00100	<0.00100	<0.00150	160
	5/14/2019	0.0015	<0.00100	<0.00100	<0.00150	130
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	100
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	100
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	100
	3/30/2021	<0.00100	<0.00100	<0.00100	<0.00150	110
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	130
MW-9	1/21/2015	**0.0240**	<0.00100	<0.00100	0.0151	53.9
	4/21/2015	**0.0305**	<0.00100	<0.00100	0.0340	53.4
	12/22/2015	**0.0190**	<0.00100	<0.00100	0.0180	57
	6/2/2016	**0.0510**	<0.00100	<0.00100	0.0250	43
	12/9/2016	**0.0320**	<0.00100	<0.00100	0.0140	43
	5/9/2017	**0.0780**	<0.00100	<0.00100	0.0400	42
	11/15/2017	**0.0290**	<0.00100	<0.00100	0.0160	35
	5/10/2018	**-**	-	-	-	33
	5/17/2018	**0.0200**	<0.00100	<0.00100	0.0017	-
	11/12/2018	**0.0076**	<0.00100	<0.00100	<0.00150	41
	5/14/2019	**0.0085**	<0.00100	<0.00100	<0.00150	80
	11/12/2019	0.0025	<0.00100	<0.00100	0.0190	220
	11/12/2019 (DUP)	0.0016	<0.00100	<0.00100	0.0110	220
	3/23/2020	0.0024	<0.00100	<0.00100	0.0052	**280**
	9/23/2020	0.0015	<0.00100	<0.00100	<0.00150	**350**
	9/23/2020 (DUP)	0.0014	<0.00100	<0.00100	<0.00150	**380**
	3/30/2021	<0.00100	<0.00100	<0.00100	0.0016	**450**
	3/30/2021 (DUP)	<0.00100	<0.00100	<0.00100	<0.00150	**420**
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	**510**
	10/7/2021 (DUP)	<0.00100	<0.00100	<0.00100	<0.00150	**620**
MW-10	12/21/2015	<0.00100	<0.00100	<0.00100	<0.00150	**570**
	6/2/2016	<0.00100	<0.00100	<0.00100	<0.00150	**500**
	12/9/2016	<0.00100	<0.00100	<0.00100	<0.00150	**580**
	5/9/2017	<0.00100	<0.00100	<0.00100	<0.00150	**640**
	11/15/2017	<0.00100	<0.00100	<0.00100	<0.00150	**520**
	5/10/2018	-	-	-	-	**730**
	5/10/2018 (DUP)	-	-	-	-	**750**
	5/17/2018	<0.00100	<0.00100	<0.00100	<0.00150	**-**
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	**770**
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	**810**
	5/14/2019 (DUP)	<0.00100	<0.00100	<0.00100	<0.00150	**830**
	11/12/2019	<0.00100	<0.00100	<0.00100	<0.00200	**930**
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	**1100**
	9/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	**1300**
	3/30/2021	<0.00100	<0.00100	<0.00100	<0.00150	**1300**
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	**1600**

Table 3
Groundwater Analytical Results Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)
NMWQCC Groundwater Quality Standards		**0.005**	**1.0**	**0.7**	**0.62**	**250**
MW-11	12/21/2015	0.00130	<0.00100	<0.00100	<0.00150	55
	6/2/2016	<0.00100	<0.00100	<0.00100	<0.00150	46
	12/9/2016	<0.00100	<0.00100	<0.00100	<0.00150	44
	5/9/2017	0.00230	<0.00100	<0.00100	<0.00150	56
	11/15/2017	**0.01300**	<0.00100	<0.00100	0.00180	35
	5/10/2018	-	-	-	-	44
	5/17/2018	0.00160	<0.00100	<0.00100	<0.00150	-
	11/12/2018	<0.00100	<0.00100	<0.00100	<0.00150	42
	5/14/2019	<0.00100	<0.00100	<0.00100	<0.00150	43
	11/12/2019	0.00100	<0.00100	<0.00100	<0.00200	33
	3/23/2020	<0.00100	<0.00100	<0.00100	<0.00150	44
	9/23/2020	0.00140	<0.00100	<0.00100	<0.00150	43
	3/30/2021	0.00150	<0.00100	<0.00100	<0.00150	52
	10/7/2021	<0.00100	<0.00100	<0.00100	<0.00150	56

Notes:
Concentrations in **bold** exceed the applicable NMWQCC Regulatory Limit.
NMWQCC = New Mexico Water Quality Controll Comission.
mg/L- milligrams per Liter.
*Samples collected by Basin Environmental Services, LLC.

Table 2
Field Parameter Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Date	Temperature (°C)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Conductivity (mS/cm)
MW-4	7/30/2014	23.60	6.97+C56:G60	34.6	568.3	1239
	10/30/2014	No Parameters Collected				
	1/21/2015	15.00	7.31	26.6	525.3	1393
	4/21/2015	19.50	6.97	18	463.2	1420
	12/21/2015	19.71	7	3.01	-47.3	1620
	11/15/2017	17.74	7.25	2.56	124.5	1581
	5/17/2018	No Parameters Collected				
	11/12/2018	16.91	7.13	3.13	-84.1	1358
	11/12/2019	Electronic Field Data Lost				
	9/23/2020	20.66	7.14	0.88	24.5	1163
	10/7/2021	20.52	7.27	0.7	-10.5	795
MW-5	7/30/2014	22.7	6.86	10.1	55.7	1213
	10/30/2014	No Parameters Collected				
	1/21/2015	15.40	7.31	22.8	510.3	1188
	4/21/2015	19.90	6.79	6.3	283.2	1323
	11/15/2017	17.86	7.11	1.29	-50.3	1551
	5/17/2018	No Parameters Collected				
	11/12/2018	17.05	6.95	3.71	-110	1318
	11/12/2019	Electronic Field Data Lost				
	9/23/2020	20.50	7.00	0.87	-111.7	1145
	10/7/2021	20.49	7.18	1.06	-96.3	746
MW-6	7/30/2014	24.6	6.67	2.7	-145.4	4320
	10/30/2014	No Parameters Collected				
	1/21/2015	7.3	8.11	50.3	108.9	3479
	4/21/2015	20.8	6.6	2.3	-30.9	4923
	12/21/2015	19.56	6.99	3.14	-106.2	6450
	6/2/2016	20	6.39	1.25	-93.8	5290
	12/9/2016	18.9	6.99	1.88	-170	4387
	5/9/2017	19.08	7.92	4.5	-73.8	4289
	11/15/2017	17.72	7.38	1.01	-73.1	4347
	5/17/2018	18.61	6.19	-	-145.2	3401
	11/12/2018	16.55	6.92	3.03	-88.1	2310
	5/14/2019	16.79	6.47	5.1	-117.7	1760
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.51	6.72	2.06	-77	2117
	7/28/2020	21.7	7.71	4.23	-43.5	1560
	9/23/2020	20.54	7.08	1.08	-62.7	1758
	3/30/2021	20.08	7.04	1.12	-74.4	1474
	10/7/2021	20.44	4.2	1.09	-96.5	968

Table 2
Field Parameter Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Date	Temperature (°C)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Conductivity (mS/cm)
MW-7	7/30/2014	24.1	7.01	6.5	-106.7	1412
	10/30/2014	No Parameters Collected				
	1/21/2015	7.2	7.91	43.8	110.7	2717
	4/21/2015	21.1	6.95	10	269.6	1938
	12/21/2015	19.61	7.07	2.57	-108.4	1919
	6/2/2016	20.2	7.08	1.47	-115.7	1580
	12/9/2016	19.02	7.17	3.11	74.8	1499
	5/9/2017	19.27	6.91	2.24	-146.9	1400
	11/15/2017	17.64	7.49	1.67	-29	1759
	5/17/2018	18.51	7.12	-	-100.2	1500
	11/12/2018	16.85	7.15	3.73	-70	1568
	5/14/2019	18.06	6.54	2.98	-98.9	1350
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.52	6.85	2.41	-53.4	1622
	9/23/2020	20.8	7.19	1.28	-36.9	1395
	3/30/2021	20.24	7.15	1.67	-59	1340
	10/7/2021	20.5	7.29	1.72	-81.9	1012
MW-8	1/21/2015	8.2	8.14	40.2	316.8	1202.43
	4/21/2015	20.1	6.93	10.6	517.3	1942
	12/21/2015	19.14	7.09	3.68	-55.7	2144
	6/2/2016	19.8	7.08	1.43	129.5	1820
	12/9/2016	18.54	7.22	8.28	463.9	1889
	5/9/2017	18.65	6.92	6.38	335.3	1938
	11/15/2017	17.53	7.5	1.89	20	2348
	5/17/2018	18.43	6.97	--	-76.8	1950
	11/12/2018	15.88	7.21	5.72	-73.1	2081
	5/14/2019	17.05	6.63	9.46	-53.1	816
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.43	6.93	3.5	-21	1749
	7/28/2020	20.7	8.18	10.16	-62.7	1030
	9/23/2020	21.68	7.48	4.2	486.3	1477
	3/30/2021	20.22	7.22	1.27	-93.8	1285
	10/7/2021	20.44	7.32	1.26	-95.9	926
MW-9	1/21/2015	6	8.33	60.9	201.7	1180
	4/21/2015	19.8	6.89	6.5	275.9	1298
	12/21/2015	19.31	7.09	3.04	-50.1	1395
	6/2/2016	19.9	6.93	1.23	-115	1180
	12/9/2016	18.72	7.15	7.87	-122.3	1145
	5/9/2017	18.88	6.68	3.76	-139.2	1138
	11/15/2017	17.68	7.16	1.41	-77.6	1464
	5/17/2018	18.07	6.72	-	-208.2	1201
	11/12/2018	16.81	7.03	2.95	-144.2	1220
	5/14/2019	17.18	6.59	3.84	-165.9	1032
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.14	6.85	2.13	-200.0	1668
	7/28/2020	21.4	7.67	10.2	-87.4	1670
	9/23/2020	20.53	7.43	1.44	-109.0	1564
	3/30/2021	20.21	7	1.02	-124.3	1917
	10/7/2021	21.25	7.12	1.12	-137.9	1378

Table 2
Field Parameter Summary
ETC Texas Pipeline, Ltd.
A-7 Bettis Pipeline
Lea County, New Mexico

Sample ID	Date	Temperature (°C)	pH	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Conductivity (mS/cm)
MW-10	12/21/2015	19.2	7.49	7.07	-9.4	3616
	6/2/2016	20.1	7.23	3.74	97.2	3250
	12/9/2016	18.64	7.23	3.76	419.5	3183
	5/9/2017	18.74	5.98	2.97	-16.7	3535
	11/15/2017	17.49	7.3	2.06	73.5	4692
	5/17/2018	18.81	7.0	-	-50.1	3821
	11/12/2018	16.82	7.33	3.7	-74	4567
	5/14/2019	17.32	6.7	5.96	-60.6	3719
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.22	6.91	3.49	5.4	4681
	9/23/2020	20.67	7.19	2.75	135.2	4636
	3/30/2021	20.19	7.11	2.34	39.3	4505
	10/7/2021	20.35	7.2	2.75	44.4	3467
MW-11	12/21/2015	18.44	7.41	6.97	43.2	1285
	6/2/2016	19.8	7.36	6.51	385.7	1120
	12/9/2016	18.56	7.34	6.85	436.6	1086
	5/9/2017	18.82	7.09	4.94	-60.8	1121
	11/15/2017	17.34	7.42	3.89	7.5	1385
	5/17/2018	18.04	7.16	-	-60.2	1204
	11/12/2018	15.99	7.45	7.81	-76.2	1238
	5/14/2019	16.63	6.9	5.7	-58.4	812
	11/12/2019	Electronic Field Data Lost				
	3/23/2020	19.94	6.99	2.64	-7.0	1247
	7/28/2020	20.9	8.19	5.97	-41.9	1000
	9/23/2020	20.44	7.3	1.42	-79.5	1049
	3/30/2021	20.17	7.25	1.63	-58.2	948
	10/7/2021	20.22	7.44	1.99	-83.4	666

Notes:
°C = degress celcius.
mg/L = milligrams per liter.
mV = millivolts.
mS/cm = microsiemens per centimeter.

Appendices

Appendix A

Laboratory Analytical Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

April 12, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX:

RE: A 7 Bettis OrderNo.: 2103D84

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 10 sample(s) on 3/31/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order: **2103D84**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2103D84
Project: A 7 Bettis

Lab ID: 2103D84-001 **Collection Date:** 3/30/2021 11:45:00 AM
Client Sample ID: GW-11209049-033021-CN-MW-1 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	300	10	*	mg/L	20	4/2/2021 2:11:22 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	2.2	1.0		µg/L	1	4/2/2021 8:33:55 PM	B76434
Toluene	ND	1.0		µg/L	1	4/2/2021 8:33:55 PM	B76434
Ethylbenzene	ND	1.0		µg/L	1	4/2/2021 8:33:55 PM	B76434
Xylenes, Total	ND	1.5		µg/L	1	4/2/2021 8:33:55 PM	B76434
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	4/2/2021 8:33:55 PM	B76434
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/2/2021 8:33:55 PM	B76434
Surr: Dibromofluoromethane	109	70-130		%Rec	1	4/2/2021 8:33:55 PM	B76434
Surr: Toluene-d8	102	70-130		%Rec	1	4/2/2021 8:33:55 PM	B76434

Lab ID: 2103D84-002 **Collection Date:** 3/30/2021 12:45:00 AM
Client Sample ID: GW-11209049-033021-CN-MW-3 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	160	10		mg/L	20	4/2/2021 2:37:07 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/2/2021 9:00:59 PM	B76434
Toluene	ND	1.0		µg/L	1	4/2/2021 9:00:59 PM	B76434
Ethylbenzene	ND	1.0		µg/L	1	4/2/2021 9:00:59 PM	B76434
Xylenes, Total	ND	1.5		µg/L	1	4/2/2021 9:00:59 PM	B76434
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	4/2/2021 9:00:59 PM	B76434
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/2/2021 9:00:59 PM	B76434
Surr: Dibromofluoromethane	115	70-130		%Rec	1	4/2/2021 9:00:59 PM	B76434
Surr: Toluene-d8	102	70-130		%Rec	1	4/2/2021 9:00:59 PM	B76434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2103D84**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2103D84
Project: A 7 Bettis

Lab ID: 2103D84-003 **Collection Date:** 3/30/2021 1:45:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-6 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	270	10	*	mg/L	20	4/2/2021 3:02:50 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/2/2021 9:28:06 PM	B76434
Toluene	ND	1.0		µg/L	1	4/2/2021 9:28:06 PM	B76434
Ethylbenzene	ND	1.0		µg/L	1	4/2/2021 9:28:06 PM	B76434
Xylenes, Total	ND	1.5		µg/L	1	4/2/2021 9:28:06 PM	B76434
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	4/2/2021 9:28:06 PM	B76434
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/2/2021 9:28:06 PM	B76434
Surr: Dibromofluoromethane	107	70-130		%Rec	1	4/2/2021 9:28:06 PM	B76434
Surr: Toluene-d8	105	70-130		%Rec	1	4/2/2021 9:28:06 PM	B76434

Lab ID: 2103D84-004 **Collection Date:** 3/30/2021 2:30:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-7 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	200	10		mg/L	20	4/2/2021 3:28:35 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0	P	µg/L	1	4/2/2021 9:55:04 PM	B76434
Toluene	ND	1.0	P	µg/L	1	4/2/2021 9:55:04 PM	B76434
Ethylbenzene	ND	1.0	P	µg/L	1	4/2/2021 9:55:04 PM	B76434
Xylenes, Total	ND	1.5	P	µg/L	1	4/2/2021 9:55:04 PM	B76434
Surr: 1,2-Dichloroethane-d4	111	70-130	P	%Rec	1	4/2/2021 9:55:04 PM	B76434
Surr: 4-Bromofluorobenzene	101	70-130	P	%Rec	1	4/2/2021 9:55:04 PM	B76434
Surr: Dibromofluoromethane	108	70-130	P	%Rec	1	4/2/2021 9:55:04 PM	B76434
Surr: Toluene-d8	106	70-130	P	%Rec	1	4/2/2021 9:55:04 PM	B76434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2103D84**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2103D84
Project: A 7 Bettis

Lab ID: 2103D84-005 **Collection Date:** 3/30/2021 4:00:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-8 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	110	10		mg/L	20	4/2/2021 3:54:20 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/2/2021 10:22:03 PM	B76434
Toluene	ND	1.0		µg/L	1	4/2/2021 10:22:03 PM	B76434
Ethylbenzene	ND	1.0		µg/L	1	4/2/2021 10:22:03 PM	B76434
Xylenes, Total	ND	1.5		µg/L	1	4/2/2021 10:22:03 PM	B76434
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	4/2/2021 10:22:03 PM	B76434
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/2/2021 10:22:03 PM	B76434
Surr: Dibromofluoromethane	111	70-130		%Rec	1	4/2/2021 10:22:03 PM	B76434
Surr: Toluene-d8	104	70-130		%Rec	1	4/2/2021 10:22:03 PM	B76434

Lab ID: 2103D84-006 **Collection Date:** 3/30/2021 4:45:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-9 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	450	25	*	mg/L	50	4/7/2021 9:46:07 PM	A76513
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/6/2021 12:43:41 PM	B76495
Toluene	ND	1.0		µg/L	1	4/6/2021 12:43:41 PM	B76495
Ethylbenzene	ND	1.0		µg/L	1	4/6/2021 12:43:41 PM	B76495
Xylenes, Total	1.6	1.5		µg/L	1	4/6/2021 12:43:41 PM	B76495
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%Rec	1	4/6/2021 12:43:41 PM	B76495
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	4/6/2021 12:43:41 PM	B76495
Surr: Dibromofluoromethane	109	70-130		%Rec	1	4/6/2021 12:43:41 PM	B76495
Surr: Toluene-d8	103	70-130		%Rec	1	4/6/2021 12:43:41 PM	B76495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2103D84**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2103D84
Project: A 7 Bettis

Lab ID: 2103D84-007 **Collection Date:** 3/30/2021 3:15:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-10 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1300	50	*	mg/L	100	4/7/2021 9:59:00 PM	A76513
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/2/2021 11:16:25 PM	B76434
Toluene	ND	1.0		µg/L	1	4/2/2021 11:16:25 PM	B76434
Ethylbenzene	ND	1.0		µg/L	1	4/2/2021 11:16:25 PM	B76434
Xylenes, Total	ND	1.5		µg/L	1	4/2/2021 11:16:25 PM	B76434
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	4/2/2021 11:16:25 PM	B76434
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/2/2021 11:16:25 PM	B76434
Surr: Dibromofluoromethane	117	70-130		%Rec	1	4/2/2021 11:16:25 PM	B76434
Surr: Toluene-d8	103	70-130		%Rec	1	4/2/2021 11:16:25 PM	B76434

Lab ID: 2103D84-008 **Collection Date:** 3/30/2021 5:30:00 PM
Client Sample ID: GW-11209049-033021-CN-MW-11 **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	52	2.5		mg/L	5	4/2/2021 5:50:09 PM	R76450
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	1.5	1.0		µg/L	1	4/3/2021 2:53:15 AM	E76434
Toluene	ND	1.0		µg/L	1	4/3/2021 2:53:15 AM	E76434
Ethylbenzene	ND	1.0		µg/L	1	4/3/2021 2:53:15 AM	E76434
Xylenes, Total	ND	1.5		µg/L	1	4/3/2021 2:53:15 AM	E76434
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	1	4/3/2021 2:53:15 AM	E76434
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	4/3/2021 2:53:15 AM	E76434
Surr: Dibromofluoromethane	114	70-130		%Rec	1	4/3/2021 2:53:15 AM	E76434
Surr: Toluene-d8	101	70-130		%Rec	1	4/3/2021 2:53:15 AM	E76434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order: **2103D84**
Date Reported: **4/12/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Lab Order:** 2103D84
Project: A 7 Bettis

Lab ID: 2103D84-009 **Collection Date:** 3/30/2021
Client Sample ID: GW-11209049-033021-CN-MW-DUP **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	420	25	*	mg/L	50	4/7/2021 10:11:52 PM	A76513
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/6/2021 1:10:53 PM	B76495
Toluene	ND	1.0		µg/L	1	4/6/2021 1:10:53 PM	B76495
Ethylbenzene	ND	1.0		µg/L	1	4/6/2021 1:10:53 PM	B76495
Xylenes, Total	ND	1.5		µg/L	1	4/6/2021 1:10:53 PM	B76495
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	4/6/2021 1:10:53 PM	B76495
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	4/6/2021 1:10:53 PM	B76495
Surr: Dibromofluoromethane	112	70-130		%Rec	1	4/6/2021 1:10:53 PM	B76495
Surr: Toluene-d8	101	70-130		%Rec	1	4/6/2021 1:10:53 PM	B76495

Lab ID: 2103D84-010 **Collection Date:**
Client Sample ID: Trip Blank **Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **BRM**	
Benzene	ND	1.0		µg/L	1	4/3/2021 3:47:39 AM	E76434
Toluene	ND	1.0		µg/L	1	4/3/2021 3:47:39 AM	E76434
Ethylbenzene	ND	1.0		µg/L	1	4/3/2021 3:47:39 AM	E76434
Xylenes, Total	ND	1.5		µg/L	1	4/3/2021 3:47:39 AM	E76434
Surr: 1,2-Dichloroethane-d4	111	70-130		%Rec	1	4/3/2021 3:47:39 AM	E76434
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/3/2021 3:47:39 AM	E76434
Surr: Dibromofluoromethane	105	70-130		%Rec	1	4/3/2021 3:47:39 AM	E76434
Surr: Toluene-d8	103	70-130		%Rec	1	4/3/2021 3:47:39 AM	E76434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2103D84**

12-Apr-21

Client: GHD

Project: A 7 Bettis

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R76450**	RunNo: **76450**
Prep Date:	Analysis Date: **4/2/2021**	SeqNo: **2707963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R76450**	RunNo: **76450**
Prep Date:	Analysis Date: **4/2/2021**	SeqNo: **2707971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.7	90	110			

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A76513**	RunNo: **76513**
Prep Date:	Analysis Date: **4/7/2021**	SeqNo: **2711576** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A76513**	RunNo: **76513**
Prep Date:	Analysis Date: **4/7/2021**	SeqNo: **2711577** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2103D84**
12-Apr-21

Client: GHD
Project: A 7 Bettis

Sample ID: **100NG LCS** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW** Batch ID: **B76434** RunNo: **76434**
Prep Date: Analysis Date: **4/2/2021** SeqNo: **2707297** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	19	1.0	20.00	0	97.4	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID: **2103d84-007a ms** SampType: **MS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **GW-11209049-03302** Batch ID: **E76434** RunNo: **76434**
Prep Date: Analysis Date: **4/3/2021** SeqNo: **2707305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	70	130			
Toluene	19	1.0	20.00	0	96.9	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		107	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: **2103d84-007a msd** SampType: **MSD** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **GW-11209049-03302** Batch ID: **E76434** RunNo: **76434**
Prep Date: Analysis Date: **4/3/2021** SeqNo: **2707306** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.8	70	130	0.0521	20	
Toluene	18	1.0	20.00	0	89.5	70	130	7.96	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		109	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		111	70	130	0	0	
Surr: Toluene-d8	9.8		10.00		98.3	70	130	0	0	

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **B76434** RunNo: **76434**
Prep Date: Analysis Date: **4/2/2021** SeqNo: **2707310** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2103D84**

12-Apr-21

Client: GHD

Project: A 7 Bettis

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**							
Client ID: **PBW**	Batch ID: **B76434**	RunNo: **76434**							
Prep Date:	Analysis Date: **4/2/2021**	SeqNo: **2707310**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID: **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**							
Client ID: **LCSW**	Batch ID: **E76434**	RunNo: **76434**							
Prep Date:	Analysis Date: **4/3/2021**	SeqNo: **2707347**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	97.7	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: **mb2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**							
Client ID: **PBW**	Batch ID: **E76434**	RunNo: **76434**							
Prep Date:	Analysis Date: **4/3/2021**	SeqNo: **2707348**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**							
Client ID: **LCSW**	Batch ID: **B76495**	RunNo: **76495**							
Prep Date:	Analysis Date: **4/6/2021**	SeqNo: **2710155**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.4	70	130			
Toluene	18	1.0	20.00	0	91.9	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2103D84**
12-Apr-21

Client: GHD
Project: A 7 Bettis

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW** Batch ID: **B76495** RunNo: **76495**
Prep Date: Analysis Date: **4/6/2021** SeqNo: **2710155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW** Batch ID: **B76495** RunNo: **76495**
Prep Date: Analysis Date: **4/6/2021** SeqNo: **2710158** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD | Work Order Number: 2103D84 | RcptNo: 1

Received By: **Cheyenne Cason** 3/31/2021 8:00:00 AM

Completed By: **Erin Melendrez** 3/31/2021 9:06:13 AM

Reviewed By: [signature] 3/31/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: SPA 3.31.21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: 505 - 264 - 0088

email or Fax#: Christine.Mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: A-7 Bettis

Project #: 11209049

Project Manager: Christine Mathews

Sampler: CN

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): ~~1.7 - 0.1 = 1.6~~ 1.7-0.1=1.6 CN 3/31/21 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2103D84	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX 8260	Chloride 300
3-30-21	1145	WT	GW-11209049-033021-CN-MW-1	various	HCl	-001											X	X
	1245		GW-11209049-033021-CN-MW-3			-002											X	X
	1345		GW-11209049-033021-CN-MW-6			-003											X	X
	1430		GW-11209049-033021-CN-MW-7			-004											X	X
	1600		GW-11209049-033021-CN-MW-8			-005											X	X
	1645		GW-11209049-033021-CN-MW9			-006											X	X
	1515		GW-11209049-033021-CN-MW-10			-007											X	X
	1730		GW-11209049-033021-CN-MW-11			-008											X	X
	—		GW-11209049-033021-CN-DUP			-009											X	X
			TRIP BLANKS SPA 3.31.21			-010 SPA 3.31.21												

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3-30-21	1845				3/30/21	1845
3/30/21	1900				3/31/21	0800

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 20, 2021

Christine Mathews
GHD
6121 Indian School Road, NE #200
Albuquerque, NM 87110
TEL: (505) 884-0672
FAX

RE: A7 Bettis OrderNo.: 2110479

Dear Christine Mathews:

Hall Environmental Analysis Laboratory received 13 sample(s) on 10/8/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 9:00:00 AM
Lab ID: 2110479-001 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	290	50	*	mg/L	100	10/10/2021 3:58:28 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 7:06:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 7:06:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 7:06:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 7:06:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	10/13/2021 7:06:00 PM	SL82008
Surr: 4-Bromofluorobenzene	94.4	70-130		%Rec	1	10/13/2021 7:06:00 PM	SL82008
Surr: Dibromofluoromethane	92.6	70-130		%Rec	1	10/13/2021 7:06:00 PM	SL82008
Surr: Toluene-d8	97.3	70-130		%Rec	1	10/13/2021 7:06:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 11:30:00 AM
Lab ID: 2110479-002 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	170	5.0		mg/L	10	10/10/2021 4:11:21 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 7:30:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 7:30:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 7:30:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 7:30:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	1	10/13/2021 7:30:00 PM	SL82008
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	10/13/2021 7:30:00 PM	SL82008
Surr: Dibromofluoromethane	91.9	70-130		%Rec	1	10/13/2021 7:30:00 PM	SL82008
Surr: Toluene-d8	96.3	70-130		%Rec	1	10/13/2021 7:30:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 12:00:00 PM
Lab ID: 2110479-003 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	180	50		mg/L	100	10/10/2021 5:15:45 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 7:53:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 7:53:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 7:53:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 7:53:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	10/13/2021 7:53:00 PM	SL82008
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	10/13/2021 7:53:00 PM	SL82008
Surr: Dibromofluoromethane	92.0	70-130		%Rec	1	10/13/2021 7:53:00 PM	SL82008
Surr: Toluene-d8	96.2	70-130		%Rec	1	10/13/2021 7:53:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 11:00:00 AM
Lab ID: 2110479-004 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	140	5.0		mg/L	10	10/10/2021 5:28:37 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 8:16:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 8:16:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 8:16:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 8:16:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%Rec	1	10/13/2021 8:16:00 PM	SL82008
Surr: 4-Bromofluorobenzene	95.0	70-130		%Rec	1	10/13/2021 8:16:00 PM	SL82008
Surr: Dibromofluoromethane	92.0	70-130		%Rec	1	10/13/2021 8:16:00 PM	SL82008
Surr: Toluene-d8	95.4	70-130		%Rec	1	10/13/2021 8:16:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 10:00:00 AM
Lab ID: 2110479-005 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	86	5.0		mg/L	10	10/10/2021 5:54:24 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 8:39:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 8:39:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 8:39:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 8:39:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%Rec	1	10/13/2021 8:39:00 PM	SL82008
Surr: 4-Bromofluorobenzene	91.4	70-130		%Rec	1	10/13/2021 8:39:00 PM	SL82008
Surr: Dibromofluoromethane	93.7	70-130		%Rec	1	10/13/2021 8:39:00 PM	SL82008
Surr: Toluene-d8	97.0	70-130		%Rec	1	10/13/2021 8:39:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 1:30:00 PM
Lab ID: 2110479-006 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	210	50		mg/L	100	10/10/2021 6:33:03 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 9:02:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 9:02:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 9:02:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 9:02:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%Rec	1	10/13/2021 9:02:00 PM	SL82008
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	10/13/2021 9:02:00 PM	SL82008
Surr: Dibromofluoromethane	90.5	70-130		%Rec	1	10/13/2021 9:02:00 PM	SL82008
Surr: Toluene-d8	97.9	70-130		%Rec	1	10/13/2021 9:02:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 12:30:00 PM
Lab ID: 2110479-007 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	230	50		mg/L	100	10/10/2021 6:58:48 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 9:26:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 9:26:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 9:26:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 9:26:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%Rec	1	10/13/2021 9:26:00 PM	SL82008
Surr: 4-Bromofluorobenzene	95.6	70-130		%Rec	1	10/13/2021 9:26:00 PM	SL82008
Surr: Dibromofluoromethane	92.3	70-130		%Rec	1	10/13/2021 9:26:00 PM	SL82008
Surr: Toluene-d8	97.4	70-130		%Rec	1	10/13/2021 9:26:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 3:00:00 PM
Lab ID: 2110479-008 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	130	5.0		mg/L	10	10/10/2021 7:37:26 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 9:49:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 9:49:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 9:49:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 9:49:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	10/13/2021 9:49:00 PM	SL82008
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	10/13/2021 9:49:00 PM	SL82008
Surr: Dibromofluoromethane	92.3	70-130		%Rec	1	10/13/2021 9:49:00 PM	SL82008
Surr: Toluene-d8	97.0	70-130		%Rec	1	10/13/2021 9:49:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 2:30:00 PM
Lab ID: 2110479-009 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	510	50	*	mg/L	100	10/10/2021 8:16:09 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 10:12:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 10:12:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 10:12:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 10:12:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	10/13/2021 10:12:00 PM	SL82008
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	1	10/13/2021 10:12:00 PM	SL82008
Surr: Dibromofluoromethane	93.5	70-130		%Rec	1	10/13/2021 10:12:00 PM	SL82008
Surr: Toluene-d8	95.9	70-130		%Rec	1	10/13/2021 10:12:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 1:00:00 PM
Lab ID: 2110479-010 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	1600	50	*	mg/L	100	10/10/2021 8:41:53 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 10:36:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 10:36:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 10:36:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 10:36:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%Rec	1	10/13/2021 10:36:00 PM	SL82008
Surr: 4-Bromofluorobenzene	95.9	70-130		%Rec	1	10/13/2021 10:36:00 PM	SL82008
Surr: Dibromofluoromethane	95.2	70-130		%Rec	1	10/13/2021 10:36:00 PM	SL82008
Surr: Toluene-d8	96.0	70-130		%Rec	1	10/13/2021 10:36:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-MW
Project: A7 Bettis **Collection Date:** 10/7/2021 2:00:00 PM
Lab ID: 2110479-011 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	56	5.0		mg/L	10	10/10/2021 8:54:45 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/13/2021 10:59:00 PM	SL82008
Toluene	ND	1.0		µg/L	1	10/13/2021 10:59:00 PM	SL82008
Ethylbenzene	ND	1.0		µg/L	1	10/13/2021 10:59:00 PM	SL82008
Xylenes, Total	ND	1.5		µg/L	1	10/13/2021 10:59:00 PM	SL82008
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%Rec	1	10/13/2021 10:59:00 PM	SL82008
Surr: 4-Bromofluorobenzene	94.6	70-130		%Rec	1	10/13/2021 10:59:00 PM	SL82008
Surr: Dibromofluoromethane	91.4	70-130		%Rec	1	10/13/2021 10:59:00 PM	SL82008
Surr: Toluene-d8	97.9	70-130		%Rec	1	10/13/2021 10:59:00 PM	SL82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** GW-11209049-100721-CN-DUP
Project: A7 Bettis **Collection Date:** 10/7/2021
Lab ID: 2110479-012 **Matrix:** GROUNDWA **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	620	50	*	mg/L	100	10/10/2021 9:33:23 PM	R81942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/14/2021 1:18:00 AM	S82008
Toluene	ND	1.0		µg/L	1	10/14/2021 1:18:00 AM	S82008
Ethylbenzene	ND	1.0		µg/L	1	10/14/2021 1:18:00 AM	S82008
Xylenes, Total	ND	1.5		µg/L	1	10/14/2021 1:18:00 AM	S82008
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%Rec	1	10/14/2021 1:18:00 AM	S82008
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	10/14/2021 1:18:00 AM	S82008
Surr: Dibromofluoromethane	93.6	70-130		%Rec	1	10/14/2021 1:18:00 AM	S82008
Surr: Toluene-d8	98.1	70-130		%Rec	1	10/14/2021 1:18:00 AM	S82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2110479**
Date Reported: **10/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD **Client Sample ID:** Trip Blank
Project: A7 Bettis **Collection Date:**
Lab ID: 2110479-013 **Matrix:** TRIP BLANK **Received Date:** 10/8/2021 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **CCM**	
Benzene	ND	1.0		µg/L	1	10/14/2021 2:27:00 AM	S82008
Toluene	ND	1.0		µg/L	1	10/14/2021 2:27:00 AM	S82008
Ethylbenzene	ND	1.0		µg/L	1	10/14/2021 2:27:00 AM	S82008
Xylenes, Total	ND	1.5		µg/L	1	10/14/2021 2:27:00 AM	S82008
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%Rec	1	10/14/2021 2:27:00 AM	S82008
Surr: 4-Bromofluorobenzene	93.9	70-130		%Rec	1	10/14/2021 2:27:00 AM	S82008
Surr: Dibromofluoromethane	93.5	70-130		%Rec	1	10/14/2021 2:27:00 AM	S82008
Surr: Toluene-d8	97.2	70-130		%Rec	1	10/14/2021 2:27:00 AM	S82008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110479**
20-Oct-21

Client: GHD
Project: A7 Bettis

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R81942**	RunNo: **81942**
Prep Date:	Analysis Date: **10/10/2021**	SeqNo: **2900680** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R81942**	RunNo: **81942**
Prep Date:	Analysis Date: **10/10/2021**	SeqNo: **2900681** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2110479**

20-Oct-21

Client: GHD

Project: A7 Bettis

Sample ID: **100ng 8260 lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **SL82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/13/2021**	SeqNo: **2903974** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.3	70	130			
Toluene	19	1.0	20.00	0	96.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **SL82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/13/2021**	SeqNo: **2903975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.7	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.5	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID: **100ng 8260 lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **S82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/14/2021**	SeqNo: **2904997** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.0	70	130			
Toluene	20	1.0	20.00	0	97.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.2	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130			
Surr: Toluene-d8	9.8		10.00		98.5	70	130			

Sample ID: **mb2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **S82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/14/2021**	SeqNo: **2904998** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2110479**
20-Oct-21

Client: GHD
Project: A7 Bettis

Sample ID: **mb2**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **S82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/14/2021**	SeqNo: **2904998** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.2	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.3	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID: **2110479-012ams**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **GW-11209049-10072**	Batch ID: **S82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/14/2021**	SeqNo: **2905000** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.6360	90.2	70	130			
Toluene	19	1.0	20.00	0	94.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.3	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.5	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.5	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID: **2110479-012amsd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **GW-11209049-10072**	Batch ID: **S82008**	RunNo: **82008**
Prep Date:	Analysis Date: **10/14/2021**	SeqNo: **2905001** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0.6360	85.6	70	130	5.09	20	
Toluene	18	1.0	20.00	0	89.7	70	130	4.79	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.8		10.00		97.8	70	130	0	0	
Surr: Dibromofluoromethane	9.2		10.00		91.8	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: GHD | Work Order Number: 2110479 | RcptNo: 1

Received By: **Cheyenne Cason** 10/8/2021 7:35:00 AM

Completed By: **Sean Livingston** 10/8/2021 8:19:05 AM

Reviewed By: JR 10/8/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☑	No ☐	NA ☐
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: KPG 10/08/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good				

Chain-of-Custody Record

Client: GHD

Mailing Address:

Phone #: (505 269 0088) (716 818 0224)

email or Fax#: christine.mathews@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: A7-Bettis

Project #: 1209049

Project Manager: Christine Mathews

Sampler: LR

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.6-0=0.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2110479	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX 8260	Chloride 300.0				
10-7-21	0900	GW	GW-1209049-100721-CN-MW-1	various	HCl	001																
	1130		GW-1209049-100721-CN-MW-2			002																
	1200		GW-1209049-100721-CN-MW-3			003																
	1100		GW-1209049-100721-CN-MW-4			004																
	1000		GW-1209049-100721-CN-MW-5			005																
	1330		GW-1209049-100721-CN-MW-6			006																
	1230		GW-1209049-100721-CN-MW-7			007																
	1500		GW-1209049-100721-CN-MW-8			008																
	1430		GW-1209049-100721-CN-MW-9			009																
	1300		GW-1209049-100721-CN-MW-10			010																
	1400		GW-1209049-100721-CN-MW-11			011																
↓	-	↓	GW-1209049-100721-CN-DUP	↓	↓	012											↓	↓				

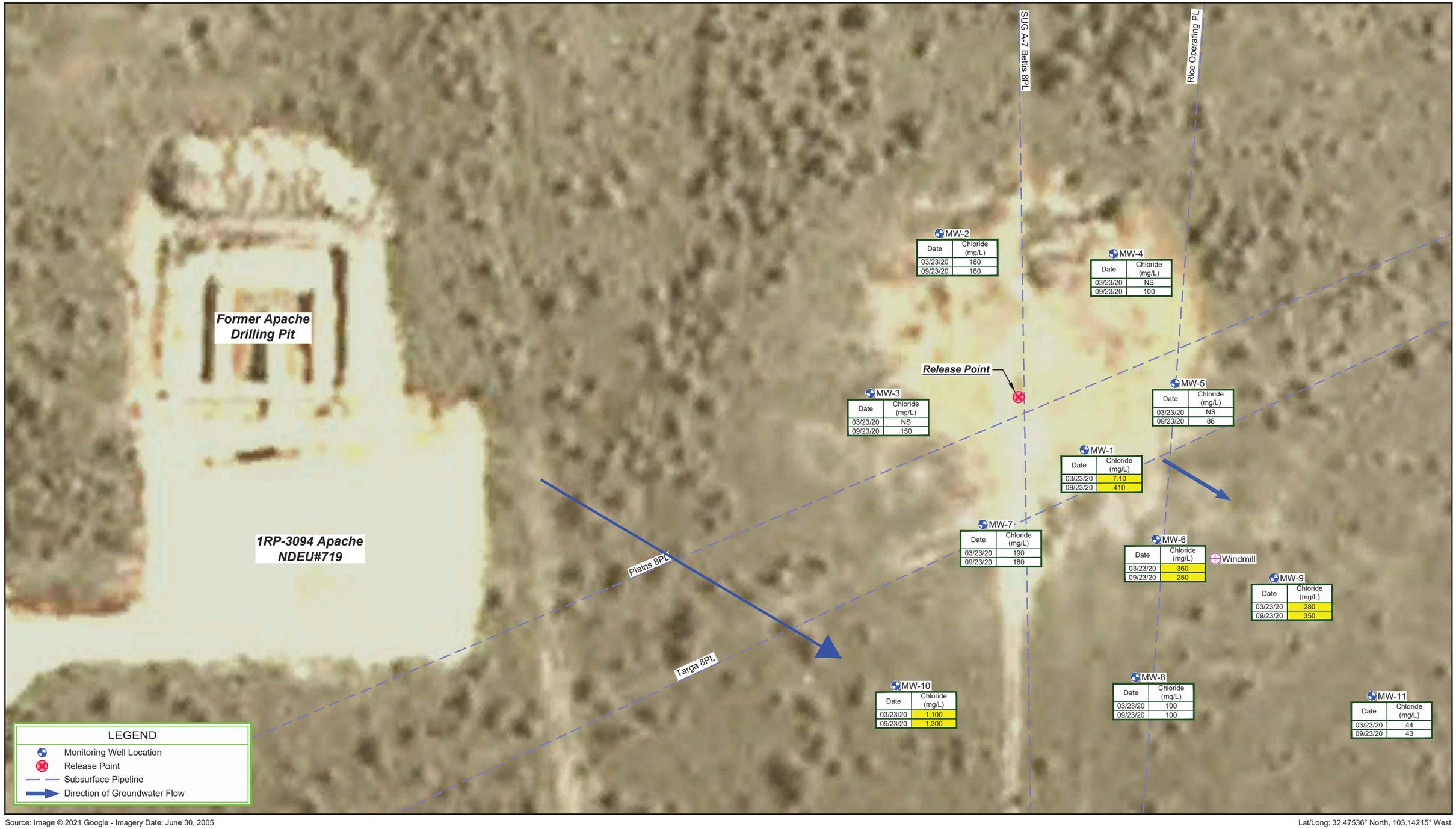
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10-7-21	1700				10/7/21	1700
10/7/21	1900		Courier		10/8/21	0735

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix B

Apache Corporation Northeast Drinkard Unit #719 Information



Source: Image © 2021 Google - Imagery Date: June 30, 2005

Lat/Long: 32.47536° North, 103.14215° West

0 20 60ft

Coordinate System:
NAD 83 (2011) State Plane-
New Mexico East (US Feet)

NOTE:

1. Concentrations shaded yellow exceed NMWQCC Regulatory Limits.

GHD

ETC TEXAS PIPELINE, LTD
LEA COUNTY, NEW MEXICO
A-7 BETTIS PIPELINE

11209049-01

Apr 9, 2021

POTENTIAL NEARBY INFLUENCE

FIGURE B

CAD File: \\CAD\Files\Eight Digit Job Numbers\11200--\11209049-ETC-A-7 Bettis Pipeline\Misc\11209049-01(Misc-01)GN-DL001.dwg

OCD Permitting

103 @ 30-025-36805

General Pit Information

Well:	[30-025-36805] NORTHEAST DRINKARD UNIT #719		
Facility:			
Operator:	[873] APACHE CORPORATION		
Status:	Active	**Fluid Type:**	Drilling Mud
Type:	Drilling	**Surface Owner:**	
Construction Material:	Earthen		
District:	Hobbs	**County:**	Lea (25)
Location:	P-15-21S-37E 1310 FSL 400 FEL		
Lat/Long:	32.4752312,-103.1436157 NAD83		

Information

Chlorides:	0 ppm	**Capacity:**	3000 bbls
Length:	0 ft	**Width:**	0 ft
Depth:	0 ft		
Site Rank:	20	**Benzene:**	10 ppm
BTEX:	50 ppm	**TPH:**	100 ppm

Leak Detected:	☐	**Prior 04/15/04:**	☐
Salt Section:	☐	**Mud > 9.5:**	☐
Under Plan:	☐	**Not Built:**	☐
Registration Denied:	☐		
Closure Approved:	☑	**Closure Denied:**	☐

Event Dates

Opened Date:		**Registered Date:**	06/09/2005
Extension Date:	06/10/2005	**Cancelled Date:**	
Closed Date:	09/02/2006	**Approved Date:**	06/10/2005

Pit Associations

Associated ID	Primary
30-025-36805	☑

Pit Events

Date	Detail
06/09/2005	missing and incorrect information submitted on C-144. Called Glen Bone to explain that all ranking scores are wrong in 5 c-144's. Requested extension for closure to "dry properly". They do not close these pits properly anyway.-PRS Groundwater @ 45'.

Quic
- Gene
- Assoc
- Event
- Perm

New
- New
- New
- New
- New
- New
- New
- New

1220 South St. Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

OCD Permitting

30-025-36805 NORTHEAST DRINKARD UNIT #719 [22503]

General Well Information

Operator:	[873] APACHE CORPORATION		
Status:	Active	**Direction:**	Vertical
Well Type:	Oil	**Multi-Lateral:**	No
Work Type:	New	**Mineral Owner:**	Private
		Surface Owner:	
Surface Location:	P-15-21S-37E 1310 FSL 400 FEL		
Lat/Long:	32.4752312,-103.1436157 NAD83		
GL Elevation:	3410		
KB Elevation:		**Sing/Mult Compl:**	Single
DF Elevation:		**Potash Waiver:**	False

Proposed Formation and/or Notes

DRINKARD

Depths

Proposed:	6850	**True Vertical Depth:**	6855
Measured Vertical Depth:	6855	**Plugback Measured:**	0

Formation Tops

Formation	Top	Producing	Method Obtained

Event Dates

Initial APD Approval:	08/11/2004		
Most Recent APD Approval:	08/11/2004	**Current APD Expiration:**	08/11/2006
APD Cancellation:			
APD Extension Approval:			
Spud:	10/03/2004	**Gas Capture Plan Received:**	
Approved Temporary Abandonment:		**TA Expiration:**	
Shut In:			
Plug and Abandoned Intent Received:		**PNR Expiration:**	
		Last MIT/BHT:	
Well Plugged:			
Site Release:			
Last Inspection:	05/25/2016		

History

Effective Date	Property	Well Number	Operator	C-101 Work Type	Well Type	Well Status	Apd Cancelled	Plug Date
08/11/2004	[22503] NORTHEAST DRINKARD UNIT	#719	[873] APACHE CORPORATION	New	Oil	Active		

Quic
- Gene
- Histo
- Comr
- Opera
- Pits
- Casin
- Well
- Finan
- Comp
- Incide
- Order
- Produ
- Trans
- Point

Assc
- Well
- Well
- Well

New
- New
- New
- New
- New
- New
- New
- New

Pits

Pit On Site: Number 103

Pit Type:	Drilling	**Status:**	Active
Registration Denied:			
Closure Approved:	Yes		
Closure Denied:			

Event Dates

Registered:	06/09/2005	**Approved:**	06/10/2005
Open:		**Closed (most recent rig release):**	09/02/2006

Notes

Date	Detail
06/09/2005	missing and incorrect information submitted on C-144. Called Glen Bone to explain that all ranking scores are wrong in 5 c-144's. Requested extension for closure to "dry properly". They do not close these pits properly anyway.-PRS Groundwater @ 45'.

Casing

			Boreholes, Strings and Equipment Specifications			Specifications for Strings and Tubing			Strings Cemented and Intervals			Cement and Plug Description		
String/Hole Type	Taper	Date Set	Diameter	Top	Bottom (Depth)	Grade	Length	Weight	Bot of Cem	Top of Cem	Meth	Class of Cement	Sacks	Pressure Test (Y/N)
Hole 1	1	10/03/2004	12.250	0	1245		0	0.0	0	0			0	No
Surface Casing	1		8.625	0	1245	J-55	1245	24.0	1245	0		Class C Cement	600	No
Hole 2	1		7.875	1245	6855		0	0.0	0	0			0	No
Production Casing	1		5.500	0	6846	J-55	6846	17.0	6846	0		Class C Cement	1300	No
Tubing 1	1		2.875	0	6675		0	0.0	0	0			0	No

Well Completions

[22900] EUNICE; BLI-TU-DR, NORTH

Status:	Active	**Last Produced:**	01/01/2021
Bottomhole Location:	P-15-21S-37E 1310 FSL 400 FEL		
Lat/Long:			
Acreage:	40 15-21S-37E Units: P		
DHC:	No	**Consolidation Code:**	
		Production Method:	Pumping

Well Test Data

Production Test:		**Test Length:**	0 hours
Flowing Tubing Pressure:	0 psi	**Flowing Casing Pressure:**	0 psi
Choke Size:	0.000 inches	**Testing Method:**	
Gas Volume:	0.0 MCF	**Oil Volume:**	0.0 bbls

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth
10/15/2004	5562	6620	0	0

Notes

Event Dates

Initial Effective/Approval:	10/03/2004		
Most Recent Approval:	10/03/2004	**TA Expiration:**	
Confidential Requested On:		**Confidential Until:**	
Test Allowable Approval:		**Test Allowable End:**	
TD Reached:		**DHC:**	
Deviation Report Received:	No	**Rig Released:**	
Directional Survey Run:	No	**Logs Received:**	No
Directional Survey Received:	No	**Closure Pit Plat Received:**	
First Oil Production:		**First Gas Production:**	
First Injection:			
Ready to Produce:	12/08/2004	**Completion Report Received:**	
C-104 Approval:	02/08/2005	**New Well C-104 Approval:**	
Plug Back:			
Authorization Revoked Start:		**Revoked Until:**	

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
10/03/2004	[22503] NORTHEAST DRINKARD UNIT	#719	[873] APACHE CORPORATION	Active	

[60240] TUBB OIL AND GAS (OIL)

Status:	Zone Permanently Plugged	**Last Produced:**	
Bottomhole Location:	P-15-21S-37E 1310 FSL 400 FEL		
Lat/Long:			
Acreage:			
DHC:	No	**Consolidation Code:**	
		Production Method:	

Well Test Data

Production Test:		**Test Length:**	0 hours
Flowing Tubing Pressure:	0 psi	**Flowing Casing Pressure:**	0 psi
Choke Size:	0.000 inches	**Testing Method:**	
Gas Volume:	0.0 MCF	**Oil Volume:**	0.0 bbls
Gas-Oil Ratio:	0 Kcf / bbl	**Oil Gravity:**	0.0 Corr. API
Disposition of Gas:		**Water Volume:**	0.0 bbls

Perforations

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth

Notes

Event Dates

Initial Effective/Approval:	08/11/2004		
Most Recent Approval:	08/11/2004	**TA Expiration:**	
Confidential Requested On:		**Confidential Until:**	
Test Allowable Approval:		**Test Allowable End:**	

Ready to Produce: **Completion Report Received:**
C-104 Approval: **New Well C-104 Approval:**
Plug Back:
Authorization Revoked Start: **Revoked Until:**

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
08/11/2004	[22503] NORTHEAST DRINKARD UNIT	#719	[873] APACHE CORPORATION	Zone Permanently Plugged	

[6660] BLINEBRY OIL AND GAS (OIL)

Status: Zone Permanently Plugged **Last Produced:**
Bottomhole Location: P-15-21S-37E 1310 FSL 400 FEL
Lat/Long:
Acreage:
DHC: No **Consolidation Code:**
Production Method:

Well Test Data

Production Test: **Test Length:** 0 hours
Flowing Tubing Pressure: 0 psi **Flowing Casing Pressure:** 0 psi
Choke Size: 0.000 inches **Testing Method:**
Gas Volume: 0.0 MCF **Oil Volume:** 0.0 bbls
Gas-Oil Ratio: 0 Kcf / bbl **Oil Gravity:** 0.0 Corr. API
Disposition of Gas: **Water Volume:** 0.0 bbls

Perforations

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth

Notes

Event Dates

Initial Effective/Approval: 08/11/2004
Most Recent Approval: 08/11/2004 **TA Expiration:**
Confidential Requested On: **Confidential Until:**
Test Allowable Approval: **Test Allowable End:**
TD Reached: **DHC:**
Deviation Report Received: No **Rig Released:**
Directional Survey Run: No **Logs Received:** No
Directional Survey Received: No **Closure Pit Plat Received:**
First Oil Production: **First Gas Production:**
First Injection:
Ready to Produce: **Completion Report Received:**
C-104 Approval: **New Well C-104 Approval:**
Plug Back:
Authorization Revoked Start: **Revoked Until:**

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
08/11/2004	[22503] NORTHEAST DRINKARD UNIT	#719	[873] APACHE CORPORATION	Zone Permanently Plugged	

DHC:	No	**Consolidation Code:**	
		Production Method:	

Well Test Data

Production Test:		**Test Length:**	0 hours
Flowing Tubing Pressure:	0 psi	**Flowing Casing Pressure:**	0 psi
Choke Size:	0.000 inches	**Testing Method:**	
Gas Volume:	0.0 MCF	**Oil Volume:**	0.0 bbls
Gas-Oil Ratio:	0 Kcf / bbl	**Oil Gravity:**	0.0 Corr. API
Disposition of Gas:		**Water Volume:**	0.0 bbls

Perforations

Date	Top Measured Depth (Where Completion Enters Formation)	Bottom Measured Depth (End of Lateral)	Top Vertical Depth	Bottom Vertical Depth

Notes

Event Dates

Initial Effective/Approval:	08/11/2004		
Most Recent Approval:	08/11/2004	**TA Expiration:**	
Confidential Requested On:		**Confidential Until:**	
Test Allowable Approval:		**Test Allowable End:**	
TD Reached:		**DHC:**	
Deviation Report Received:	No	**Rig Released:**	
Directional Survey Run:	No	**Logs Received:**	No
Directional Survey Received:	No	**Closure Pit Plat Received:**	
First Oil Production:		**First Gas Production:**	
First Injection:			
Ready to Produce:		**Completion Report Received:**	
C-104 Approval:		**New Well C-104 Approval:**	
Plug Back:			
Authorization Revoked Start:		**Revoked Until:**	

Well Completion History

Effective Date	Property	Well Number	Operator	Completion Status	TA Expiration Date
08/11/2004	[22503] NORTHEAST DRINKARD UNIT	#719	[873] APACHE CORPORATION	Zone Permanently Plugged	

Financial Assurance

Effective	Bond Type	Base	Balance	Issuer	Cash/Surety	Cancellation Date
08/25/2015	Temporarily Abandoned	1000000	1000000	LIBERTY MUTUAL INSURANCE CO	Surety	
01/30/2019	Blanket	250000	250000	LIBERTY MUTUAL INSURANCE CO	Surety	

Last Production for this well:	1/2021
Inactive Additional Bond Due Date:	02/01/2023
Bonding Depth:	6855
Required Well Bond Amount:	38710
Well Bond Required Now:	No
Amount of Well Bond In Place:	0
Variance:	38710 Note: This well is covered by this operator's Blanket Bond(s).
In Violation:	No

Note that Financial Assurance and Inactive Well Compliance are documented in separate reports (Inactive Well Report, Financial Assurance Report).

Also note that some compliance issues are addressed at the operator level so not listed under each well.

Incidents and Spills

No Incidents Found

Please note that incidents that impact ground water are recorded along with “facilities” which may not be wells, so although the initial report may be recorded here as a spill, information related to the abatement plans, remediation plans and ground water impact information are not yet part of this application.

Orders

No Orders Found

Production / Injection

Earliest Production in OCD Records: 3/2005 **Last** 1/2021 Show All Production Export to Excel

	Production				Injection				
Time Frame	Oil(BBLS)	Gas(MCF)	Water(BBLS)	Days P/I	Water(BBLS)	Co2(MCF)	Gas(MCF)	Other	Pressure
2005	3687	85747	3663	304	0	0	0	0	N/A
2006	3218	87378	3337	363	0	0	0	0	N/A
2007	1681	62122	2771	364	0	0	0	0	N/A
2008	1988	42572	1894	366	0	0	0	0	N/A
2009	1704	47394	1583	365	0	0	0	0	N/A
2010	1179	37179	1809	365	0	0	0	0	N/A
2011	1281	22497	2851	365	0	0	0	0	N/A
2012	966	19368	2398	366	0	0	0	0	N/A
2013	965	14565	2561	365	0	0	0	0	N/A
2014	1427	14709	2591	365	0	0	0	0	N/A
2015	685	9655	468	359	0	0	0	0	N/A
2016	497	9766	599	366	0	0	0	0	N/A
2017	401	8556	478	363	0	0	0	0	N/A
2018	388	4989	151	357	0	0	0	0	N/A
2019	405	6587	238	363	0	0	0	0	N/A
2020	610	7222	430	350	0	0	0	0	N/A
2021	31	559	24	31	0	0	0	0	N/A
Grand Total:	21113	480865	27846	5777	0	0	0	0	N/A

[24650] TARGA MIDSTREAM SERVICES LLC	Gas	1/2021
[298751] REGENCY FIELD SERVICES LLC	Gas	1/2021
[214984] PLAINS MARKETING, L.P.	Oil	1/2021

Points of Disposition

ID	Type	Description	Pool(s)
2264830	Gas		[22900] EUNICE;BLI-TU-DR, NORTH
2264710	Oil		[22900] EUNICE;BLI-TU-DR, NORTH

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 118465

CONDITIONS

Operator: ETC Texas Pipeline, Ltd. 8111 Westchester Drive Dallas, TX 75225	OGRID: 371183
	Action Number: 118465
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2021 ANNUAL GROUNDWATER MONITORING REPORT: Content satisfactory OCD condition of approval are as follows; 1. Continue sampling for chloride from MW-1, MW-6, MW-9, & MW-10. 2. OCD approves sampling termination from MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, & MW-11. 3. OCD approves discontinuing sampling for BTEX from MW-1, MW-6, MW-9, & MW-10. 4. To confirm the elevated chloride level in MW-10, OCD request an up-gradient monitor well be installed as soon as practical (see Fig. 2). 5. Submit the 2022 Annual Groundwater Monitoring Report to the OCD no later than August 22, 2023.	5/24/2023