Received by OCD: 3/23/2023 11:36:17 AM

Accepted - 05/18/2023

NV

Adriane Gifford
Project Manager

Upstream Business Unit
Environmental Management Company
1500 Louisiana Street
Room 38108
Houston, Texas 77002
Tel 832-854-5620
agifford@chevron.com

July 31, 2019

Mr. Bradford Billings
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: 2019 Semi-Annual Groundwater Monitoring Report (January to June 2019)
Chevron Dollarhide Groundwater Remediation Site
Andrews County, Texas
RRC OCP No. 08-1048
NMOCD RP No. 1R-3944

Dear Mr. Billings:

Chevron Environmental Management Company (CEMC) submits herein to the New Mexico Oil Conservation Division (OCD) the 2019 Semi-Annual Groundwater Monitoring Report (January to June 2019) for the Chevron Dollarhide Oil Field Unit located in Andrews County, Texas (Site). This report was prepared by GHD Services Inc. (GHD) to document groundwater monitoring activities performed at the Site on behalf of CEMC during the above referenced reporting period.

If you have any questions regarding this submittal, please contact me at (832) 854-5620 or Nick G. Casten of GHD at (225) 296-6513.

Respectfully,

Chevron Environmental Management Company
on behalf of
Chevron U.S.A. Inc.

Adriane Gifford
Project Manager

Encl.

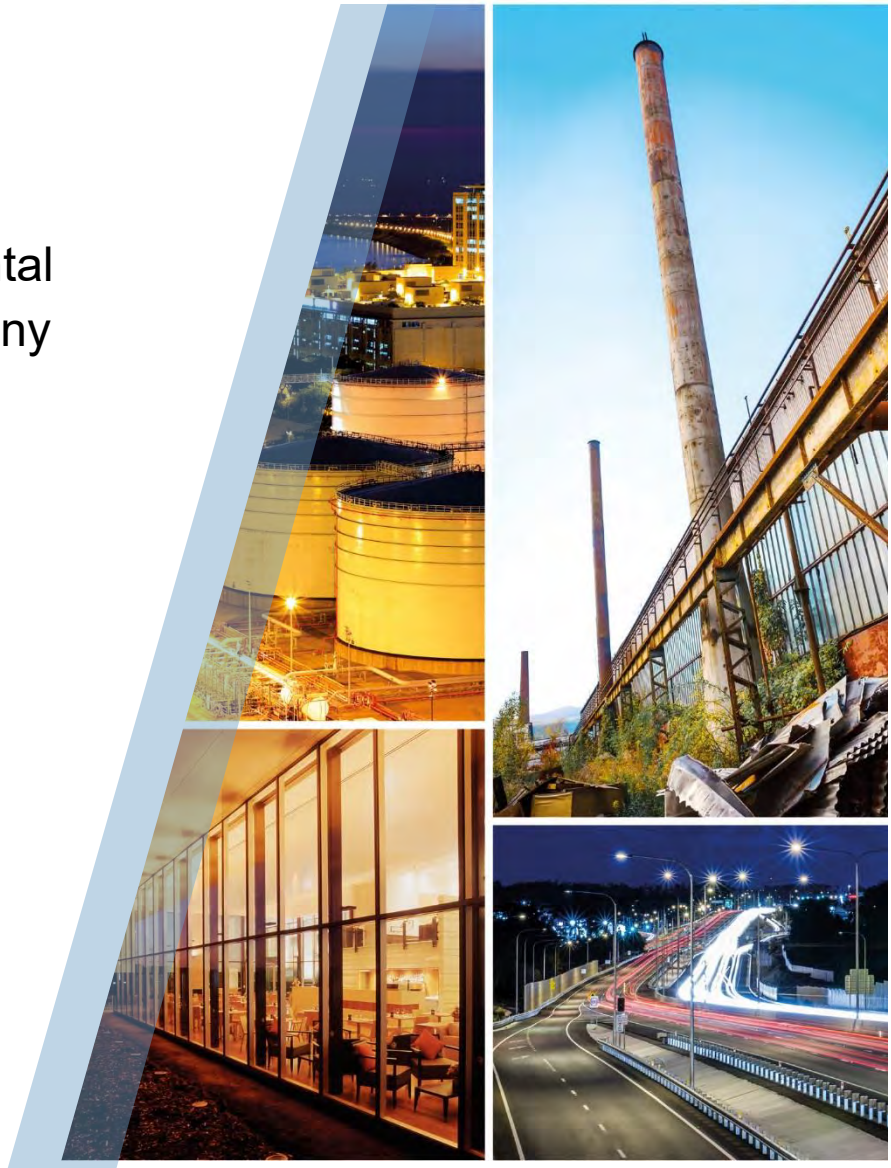
cc: Jessica Cofrancesco, RRC Site Remediation Section
Nick G. Casten, GHD

Released to Imaging: 11/21/2023 10:32:34 AM



Semi-Annual Groundwater Monitoring Report (January to June 2019)

Dollarhide Oil Field Unit
Andrews County, Texas
RRC OCP No. 08-1048
OCD RP No. 1R-3944



Chevron Environmental Management Company

Table of Contents

1. Introduction 1
2. Background 1
3. Regulatory Framework 2
4. Groundwater Recovery 3
5. 2019 Groundwater Investigation 3
   5.1 Monitor Well Construction 3
6. Groundwater Monitoring 4
   6.1 Potentiometric Conditions 4
   6.2 Groundwater Sampling 4
   6.3 Analytical Results 4
   6.4 Quality Assurance/Quality Control 5
7. Conclusions and Path Forward 5

Figure Index

Figure 1 Site Vicinity Map
Figure 2 Site Details Map
Figure 3 January 2019 Groundwater Potentiometric Elevations and Contours
Figure 4 April 2019 Groundwater Potentiometric Elevations and Contours
Figure 5 January 2019 Groundwater Chloride Concentrations and Isopleths
Figure 6 April 2019 Groundwater Chloride Concentrations and Isopleths
Figure 7 January 2019 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 8 April 2019 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths

Table Index

Table 1 Groundwater Well Designations
Table 2 January 2019 Groundwater Elevation Measurements
Table 3 April 2019 Groundwater Elevation Measurements
Table 4 2019 Groundwater Analytical Results Summary

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix Index

Appendix A	Soil Boring Logs
Appendix B	Well Reports
Appendix C	Monitor Well Construction Diagrams
Appendix D	Historical Groundwater Elevations
Appendix E	Groundwater Sample Analytical Laboratory Reports
Appendix F	Historical Groundwater Analytical Data
Appendix G	Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

1. Introduction

GHD Services Inc. (GHD), on behalf of Chevron Environmental Management Company (CEMC), submits herein to the Railroad Commission of Texas (RRC) the first *Semi-Annual Groundwater Monitoring Report (January to June 2019)* for the Dollarhide Oil Field Unit located in Andrews County, Texas (Site). The latitude/longitude coordinates for the Site are 32º 08' 45.60" N and 103º 03' 20.12" W, and a vicinity map showing the Site location is included as Figure 1. This report presents a summary and evaluation of the annual groundwater monitoring data collected in the first half of 2019.

2. Background

It is believed that historical operations at the Site have contributed to elevated chloride concentrations in groundwater in the Ogallala Aquifer. The Site was discovered as an oil and gas production field in 1945 and, over the years, was owned and operated and/or leased by various companies that disposed of excess produced water and drilling fluids into pits. The use of pits for water disposal ceased in 1967, and the Site operators began using an injection system for disposal. In 1971, the first evidence of elevated chloride concentrations in groundwater was identified in Tract 26, and then in 1974 in Tract 45. Groundwater assessment was initiated in 1974, and groundwater recovery was initiated in 1994 by Union Oil Company of California (Unocal).

Representatives of Unocal and the RRC participated in a meeting on June 2, 1994, to discuss the installation of 24 recovery wells located in Texas along the Texas and New Mexico State Line to remove chloride-impacted groundwater from the Ogallala aquifer. Unocal received RRC approval of the recovery system in written correspondence on July 7, 1994. Since 1994, two additional recovery wells were installed, totaling 26 recovery wells that recovered groundwater from the Site. The recovered groundwater was pumped into two on-Site injection wells for oil reservoir pressure maintenance. Chevron Corporation purchased Unocal in August 2005. Since that time, Chevron U.S.A., Inc. (Chevron) continued to operate the groundwater recovery system until the system shutdown in November 2017, with concurrence from the RRC and New Mexico Oil Conservation Division (OCD).

Former Pits

Prior to the 1970s, it was an accepted practice in oil field operations to store produced water in pits adjacent to well locations. After livestock water wells in the vicinity of the Site began exhibiting elevated chloride concentrations, soil borings were installed in all former pit locations to assess possible chlorides in soil leaching to groundwater. Historical aerial photographs were reviewed to assess potential source areas. A 1955 aerial photograph identified the presence of approximately 84 former produced water (brine) pits adjacent to Site well locations. A large-scale evaporation pit located to the northwest of the existing gas plant that had been utilized to store mixed brine was identified as a potential source area. Soil samples were collected from various depths within the former pits and were submitted for laboratory analysis of chlorides. Former pit locations with soil chloride concentrations less than 700 parts per million (ppm) were determined not to be potential

Released to Imaging: 11/21/2023 10:32:34 AM

source areas and were left in place. The former pit locations with soil chloride concentrations greater than 700 ppm were determined to be potential source areas, and Unocal capped the pits with a geosynthetic clay liner to prevent any further leaching of chlorides.

Light Non-Aqueous Phase Liquid

During a groundwater sampling event in January 2000, dissolved hydrocarbon constituents and light non-aqueous phase liquid (LNAPL) were detected in recovery well 44-J-WW during a routine groundwater sampling event. The LNAPL exhibited elevated concentrations of hydrocarbons in the C_6-C_{12} range, indicative of natural gas liquids. A north-south trending underground pipeline that contains hydrocarbon products, operated by another company (not Chevron), is located within 100 feet of monitor well 44-J-WW. Soil investigations were conducted in 2000 by Unocal and 2011 by CEMC, to determine the source area of the release; however, no hydrocarbon impacts were detected in soil. On November 5, 2010, LNAPL was discovered in two additional recovery wells, 44-I-WW and 44-II-WW, during routine operation and maintenance. Due to the presence of LNAPL, these three wells remained inactive through November 2017, when the groundwater recovery system was shut down to prevent the introduction of LNAPL into the groundwater recovery system. The LNAPL identified in these three wells (44-J-WW, 44-I-WW, and 44-II-WW) is not located near any Chevron assets that contain hydrocarbons, and the LNAPL is believed to be associated with other third-party pipelines in the vicinity. LNAPL investigation efforts have been summarized in previous reports that have been submitted to the RRC.

3. Regulatory Framework

The RRC has regulatory jurisdiction over oil and gas production operations in the State of Texas. CEMC has been working under the guidance of the RRC to address the groundwater chloride impacts as a result of historic operations at the Site. Under the RRC, the Site is regulated under Title 16 of the Texas Administrative Code (TAC) Chapter 3 (relating to the Oil and Gas Division) Rule §3.8(b) (Statewide Rule 8 Water Protection).

On October 13, 2015, representatives of the OCD and CEMC participated in a meeting at the OCD office in Santa Fe, New Mexico, to discuss the installation of groundwater monitor wells on CEMC-owned property in New Mexico to delineate and to further assess the impacts to the Site's groundwater with respect to chlorides and total dissolved solids (TDS). Subsequent to the meeting, CEMC submitted a Release Notification and Corrective Action (C-141) Form in a written correspondence on October 28, 2015, per OCD's request, in order to establish a file for the Site. Following the 2015 meeting with the OCD, CEMC completed groundwater investigations in 2015, 2016, and 2017 that included installation of monitor wells in Texas and New Mexico to further delineate the plume boundary.

On May 16, 2017, representatives from CEMC and GHD met with the RRC and the OCD at their respective offices. The meeting was held via teleconference to provide a project status update to both regulatory agencies and to ensure that the regulatory agencies involved in the project are in alignment with the path forward for the Site. During the joint regulatory meeting, the current and future use of the recovery system was discussed. CEMC informed the RRC and OCD of its intentions to temporarily shut down the groundwater recovery system in the fourth quarter of 2017,

Released to Imaging: 11/21/2023 10:32:34 AM

for at least one calendar year, to evaluate non-pumping aquifer and plume conditions. The RRC and OCD agreed with this approach and the groundwater recovery system was shut down in November 2017.

4. Groundwater Recovery

In the fourth quarter of 2018, representatives from CEMC and GHD met with the RRC (November 28, 2018) and the OCD (December 13, 2018) at their respective offices. The purpose of these meetings was to provide a project status update to both regulatory agencies and discuss the path forward for the Site. During both 2018 regulatory meetings, CEMC informed the RRC and the OCD of its intentions to permanently shut down the groundwater recovery system. The RRC and OCD both agreed with this approach, and the groundwater recovery system will remain permanently shut down.

5. 2019 Groundwater Investigation

A preliminary groundwater model and future developments were presented to both agencies during the 2018 regulatory meetings. This development includes refining the groundwater model after completing an additional groundwater investigation in 2019. The objective of the investigation is to establish long-term plume management monitoring points in Texas and further delineate the downgradient groundwater plume boundary in both states. Additionally, the newly installed wells in New Mexico will be used to identify bedrock elevations across the Dollarhide field and the monument draw, saturated thickness of the Ogallala aquifer, and groundwater flow conditions. The data from the analysis of the new wells will be used to fill in gaps identified in the Conceptual Site Model. CEMC submitted a work plan in February 2019 proposing to install eleven new monitor wells. The RRC reviewed the work plan and approved of the proposed activities with a request for semi-annual report submittals.

The proposed 2019 investigation activities were split into two events by state, Texas monitor well installation and New Mexico monitor well installation. Three monitor wells were installed in Texas in April 2019. Installation details from the April 2019 event are included within. Due to delays with access agreements and permitting, the monitor well installation in New Mexico has been delayed until the third or fourth quarter of 2019. The data collected from the New Mexico well installation event is anticipated to be included in the July through December 2019 Semi-Annual Groundwater Monitoring Report.

5.1 Monitor Well Construction

Three monitor wells (MW-32, MW-33, and MW-34) were installed using roto-sonic drilling methods to total depths ranging from approximately 88 to 100 feet below ground surface (bgs). Soil boring logs are included in Appendix A. All wells were constructed using 4-inch diameter schedule 40 PVC casing, with 8/16 sand gravel filter packs and 0.020-inch slotted PVC well screens adjacent to the bottom 40 feet of the wells. Each well was sealed using a cement/bentonite grout to the ground surface. Surface completions consisted of a concrete pad and approximately 3 feet of PVC casing

Released to Imaging: 11/21/2023 10:32:34 AM

stickups encased in locking steel well vaults. Copies of the State of Texas Well Reports are included in Appendix B, and the monitor well construction diagrams are included in Appendix C.

6. Groundwater Monitoring

Groundwater sampling was initiated in 2008 at the site on a semi-annual basis. In 2017, CEMC initiated quarterly groundwater sampling to provide concentration data trends. Currently, groundwater monitoring at the Site is being performed on a quarterly basis, with events conducted in January, April, July, and October. The groundwater monitoring system consists of 61 monitor wells and 8 non-remedial wells screened in the Ogallala Aquifer approximately 120 feet bgs. Groundwater well designations are shown on Figure 2 and listed in Table 1. During the January and July events, all viable wells in the groundwater monitoring system are sampled. During the voluntary April and October events, only the wells installed during the 2015, 2016, 2017, and 2019 groundwater investigations are sampled to develop concentration trends over time. The groundwater data collected in January and April 2019 are discussed herein.

6.1 Potentiometric Conditions

Prior to sampling during each event, depth-to-groundwater measurements were collected at each well with an oil/water interface probe, with an accuracy of 0.01 foot, to determine the groundwater elevation in each well. Groundwater potentiometric elevations and contours for the January and April 2019 events are shown on Figures 3 and 4, respectively, and indicate that the groundwater flow direction is generally to the southwest, consistent with previous events. A summary of the depth-to-groundwater measurements and the corresponding groundwater elevations is included in Tables 2 and 3. Historical groundwater elevations are included in Appendix D.

6.2 Groundwater Sampling

All groundwater samples were collected via no-purge grab sampling techniques. The groundwater samples were collected directly from the screened interval of each well using a HydraSleeve. The HydraSleeve is deployed during the gauging event to allow the well to return to equilibrium prior to sampling. Groundwater samples were collected in laboratory-supplied containers, preserved on ice, and transported to Xenco Laboratory located in Odessa, Texas, following proper chain-of-custody procedures. The groundwater samples were submitted for analysis of chloride by United States Environmental Protection Agency (EPA) Method 300/300.1 and TDS by EPA Method SM2540C.

6.3 Analytical Results

Groundwater sample analytical results were compared to the Texas Commission of Environmental Quality (TCEQ) Secondary Drinking Water Standards and Secondary Constituent levels for chlorides (300 milligrams per liter [mg/L]) and TDS (1,000 mg/L). The groundwater sample analytical results from the January and April 2019 events are listed in Tables 4. The groundwater chlorides and TDS concentrations and isopleths for the 2019 sampling events are shown on Figures 5 through 8, and the analytical laboratory reports are included in Appendix E. The

Released to Imaging: 11/21/2023 10:32:34 AM

concentrations of chlorides and TDS are generally consistent with historical events. A table of historical analytical results is included in Appendix F.

6.4 Quality Assurance/Quality Control

During the January and April 2019 sampling events, six duplicate samples were collected for chloride and TDS during each sampling event to confirm sample quality and reproducibility. No significant deviations were encountered in the sample results for duplicate constituents. Additionally, the certified groundwater laboratory reports received from Xenco Laboratory were reviewed and approved by a GHD analytical chemist for laboratory and field method quality assurance/quality control (QA/QC). The associated data validation reports issued by GHD are included in Appendix G.

7. Conclusions and Path Forward

The installation of the eight additional monitor wells in New Mexico is scheduled to be completed in the third or fourth quarter of 2019, pending access agreements and issuance of applicable well permits from the New Mexico Office of the State Engineer. The installation of the eight wells in New Mexico will further define groundwater model parameters, identify bedrock elevations across the Dollarhide field and the monument draw, and define saturated thickness of the Ogallala aquifer and groundwater flow conditions. The results of the 2019 groundwater monitoring events will be used to continue development for the strategy and path forward for the Site. CEMC anticipates scheduling an update meeting with the RRC and the OCD in the fourth quarter of 2019 to discuss the results of the 2019 groundwater investigation.

CEMC will continue conducting quarterly monitoring only for the monitor wells recently installed in 2015, 2016, 2017, and 2019. Monitor wells installed prior to 2015 will continue to be sampled semi-annually.

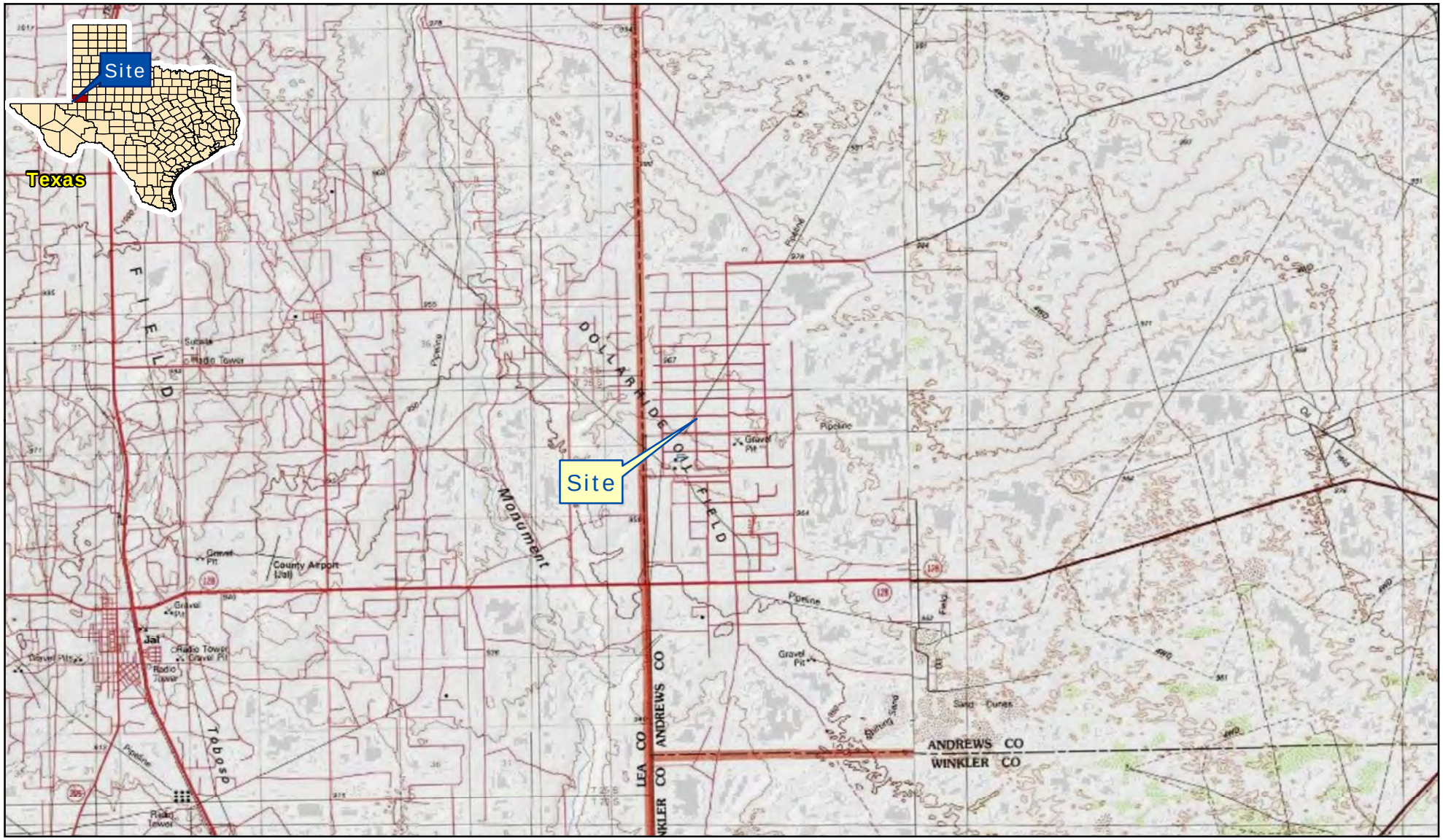
Should you have any questions regarding this submittal, please contact Nick G. Casten of GHD at (225) 296-6513 or Adriane Gifford of CEMC at (832) 854-5620.

All of which is Respectfully Submitted

GHD,

Nicholas G. Casten

Brian L. Carter, PhD
Texas PG No. 10319



Source: USGS 7.5 Minute Topographic Maps.

0 1 2
Miles

Coordinate System:
NAD 1983 UTM Zone 13N

N

GHD

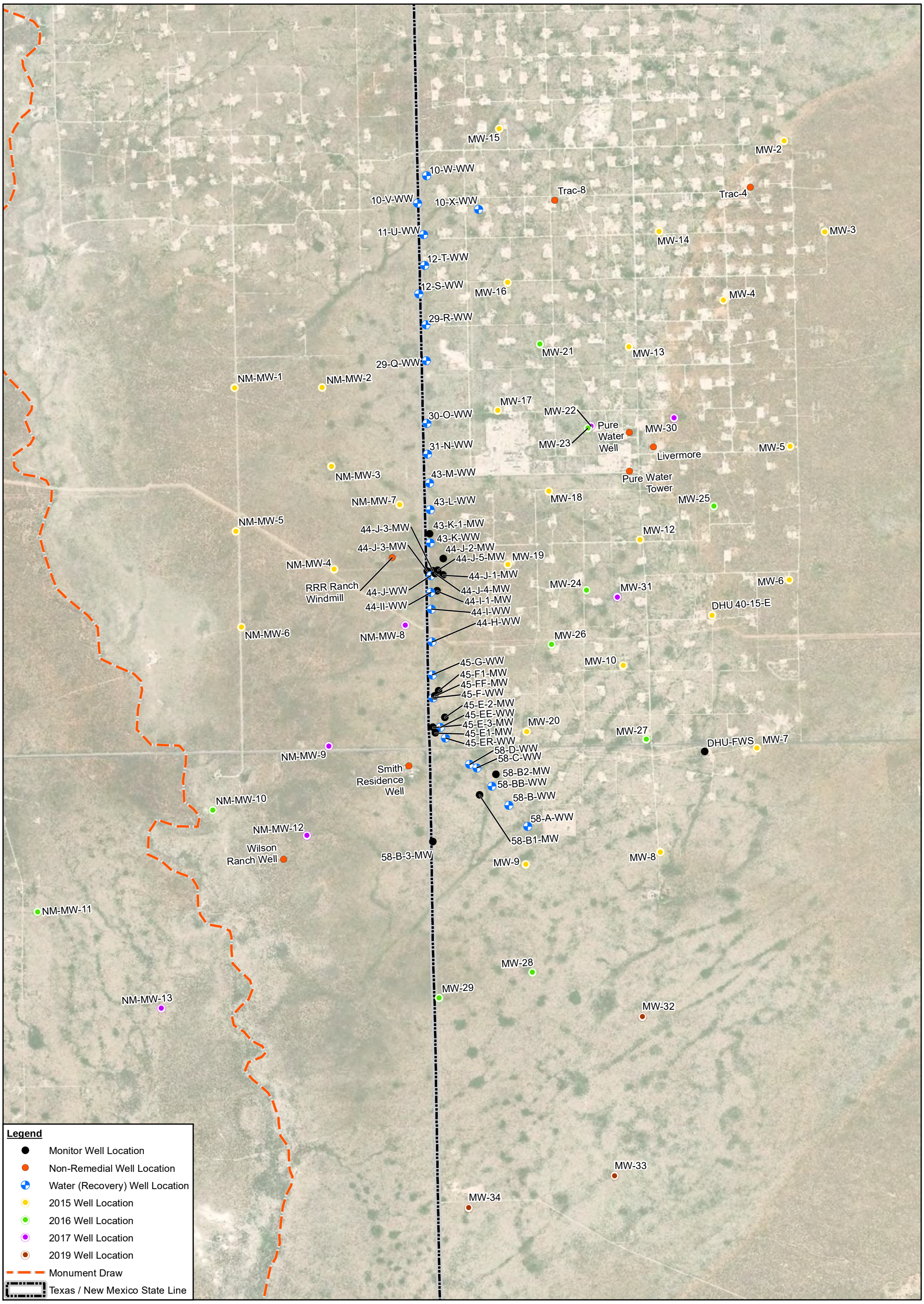
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
CHEVRON DOLLARHIDE UNIT

055270
Jun 20, 2019

SITE VICINITY MAP

FIGURE 1

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR007.mxd



Source: ESRI World Imagery Basemap Service, Digital Globe: 10/11/2016

0 1,350 2,700
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

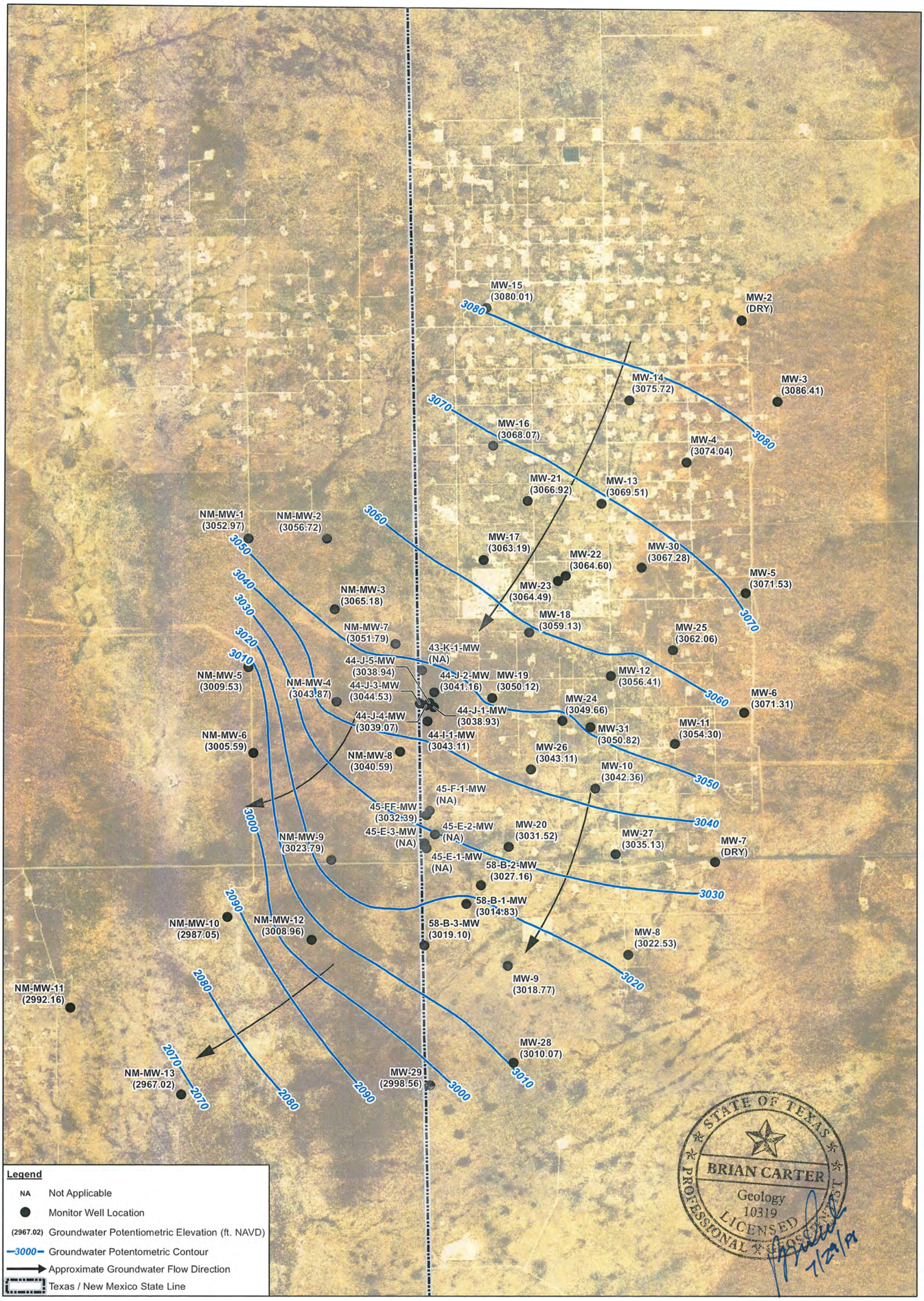
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Jun 20, 2019

SITE DETAILS MAP

FIGURE 2

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR008.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

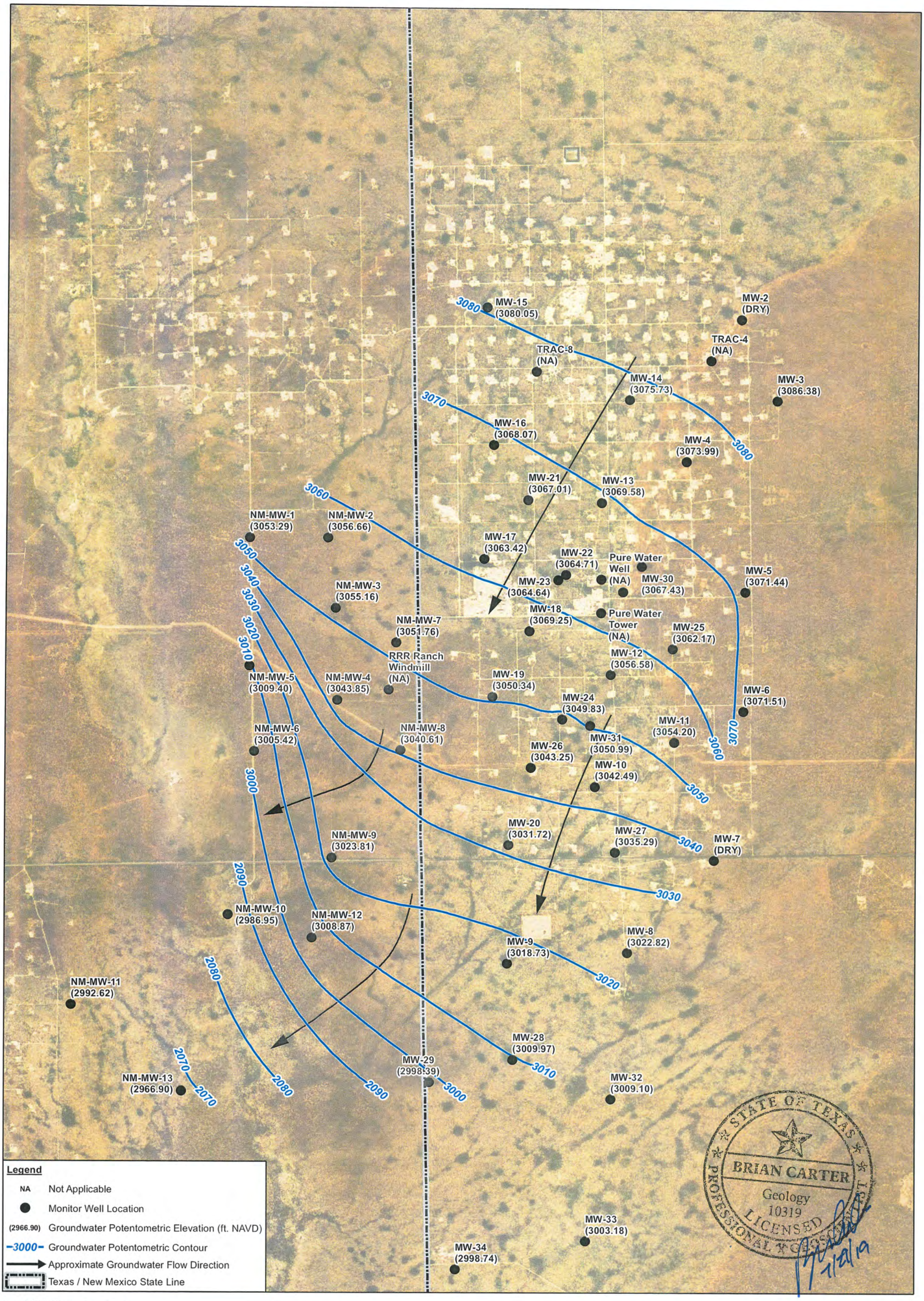
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JANUARY 2019 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Jul 25, 2019

FIGURE 3

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR001.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

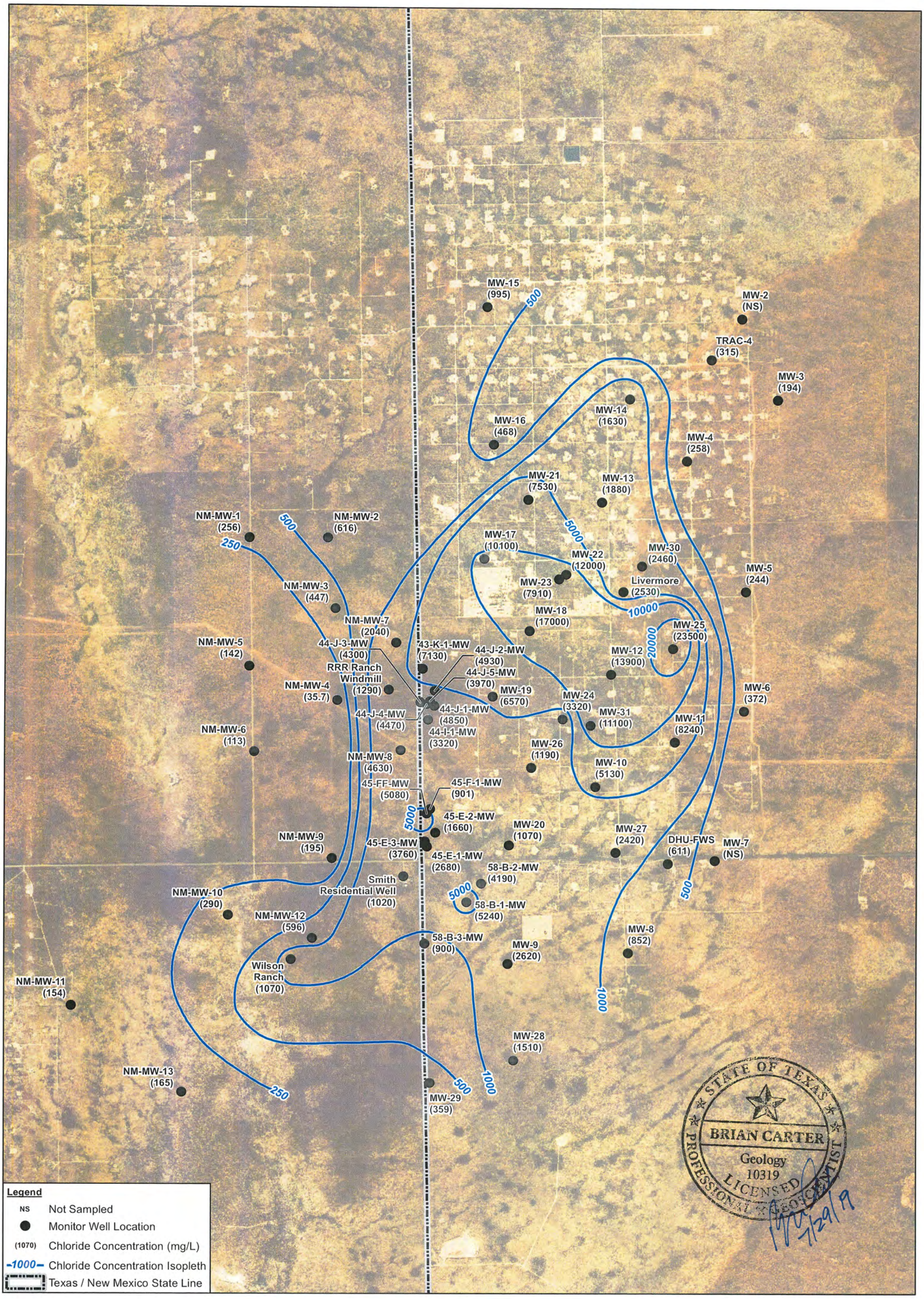
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2019 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Jul 2, 2019

FIGURE 4

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR004.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

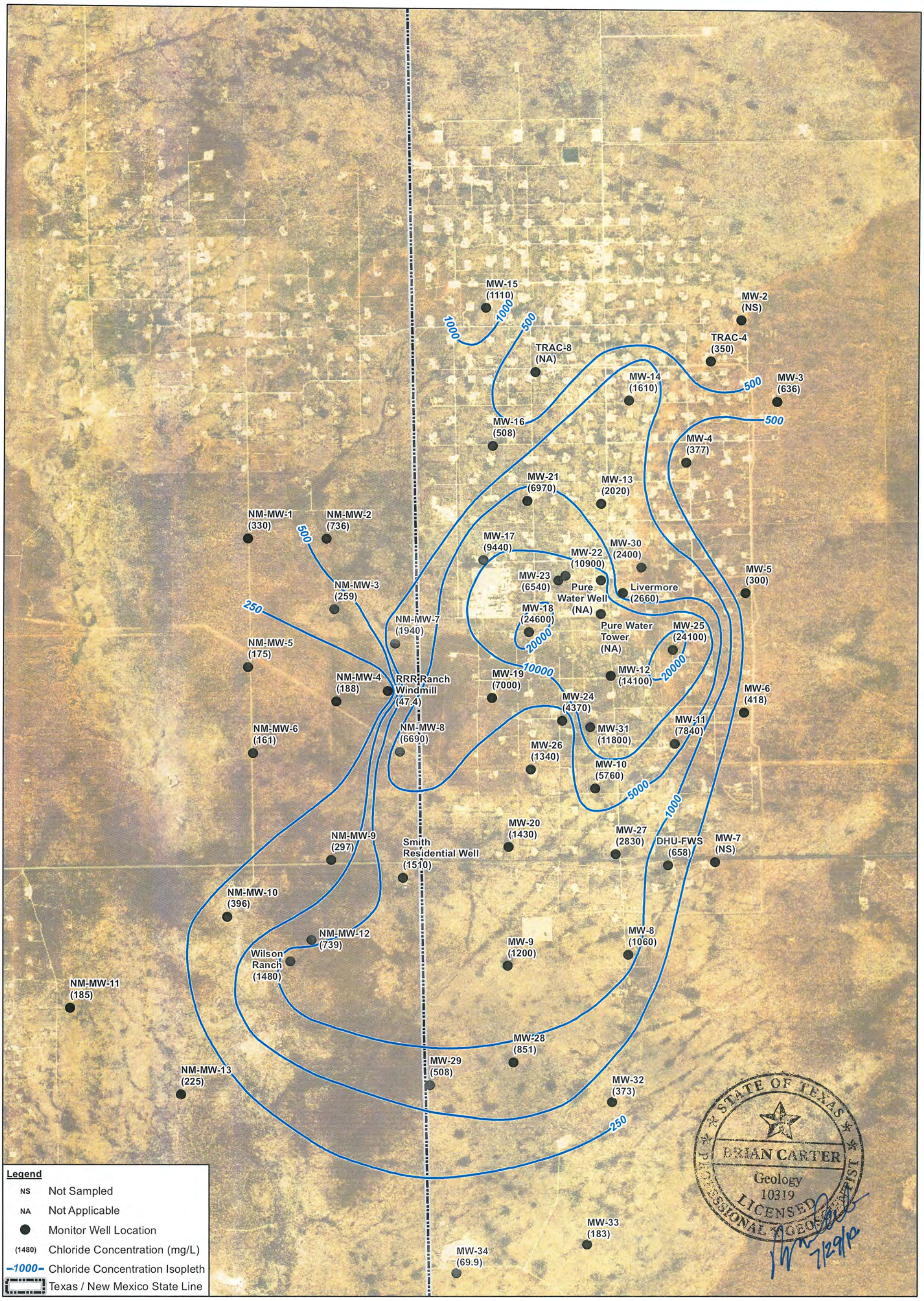
JANUARY 2019 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Jul 25, 2019

FIGURE 5

STATE OF TEXAS
BRIAN CARTER
Geology
10319
LICENSED
PROFESSIONAL GEOSCIENTIST
7/29/19

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\01\055270_00(016)GIS_BR002.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

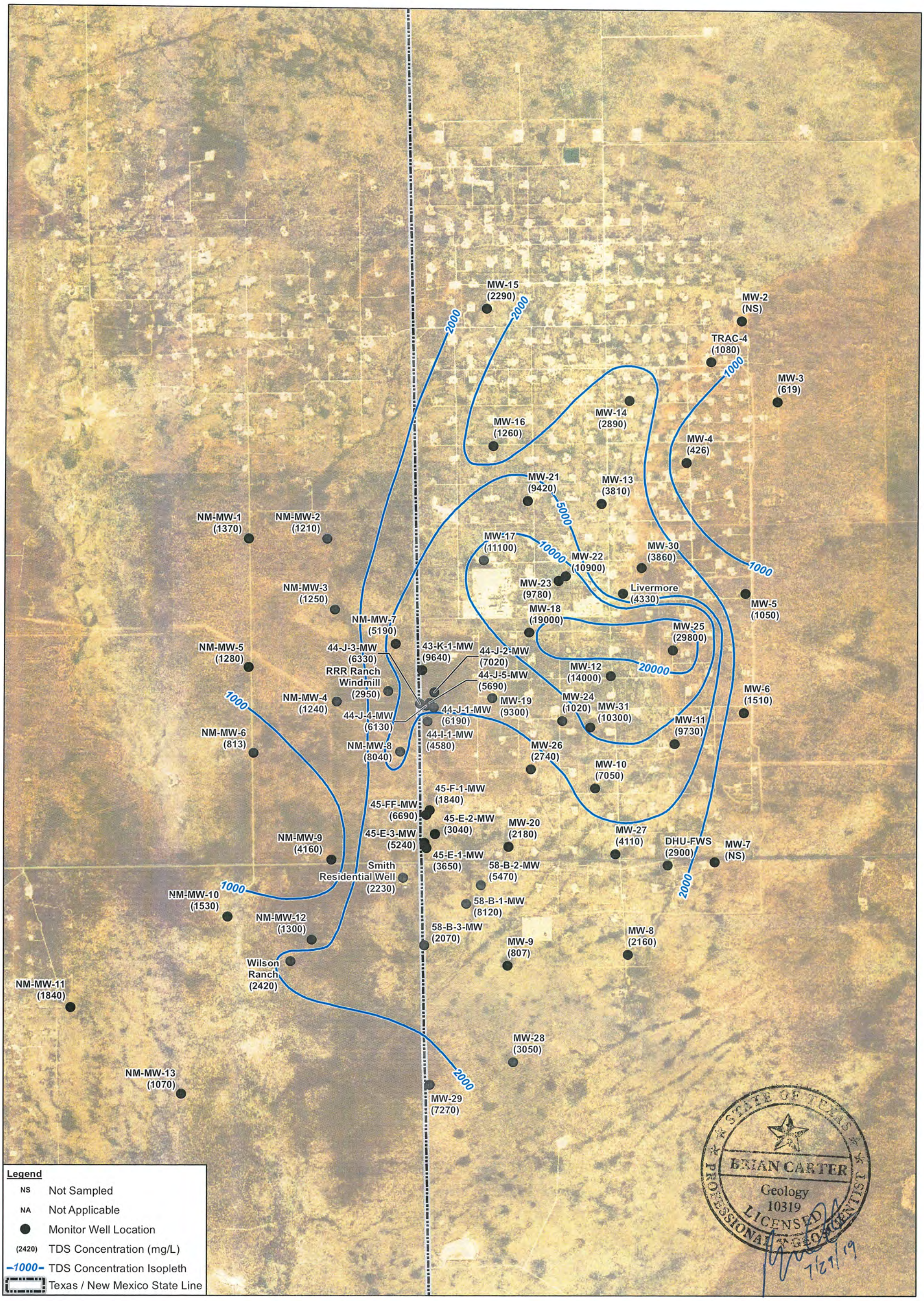
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2019 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Jul 25, 2019

FIGURE 6

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR005.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

N

GHD

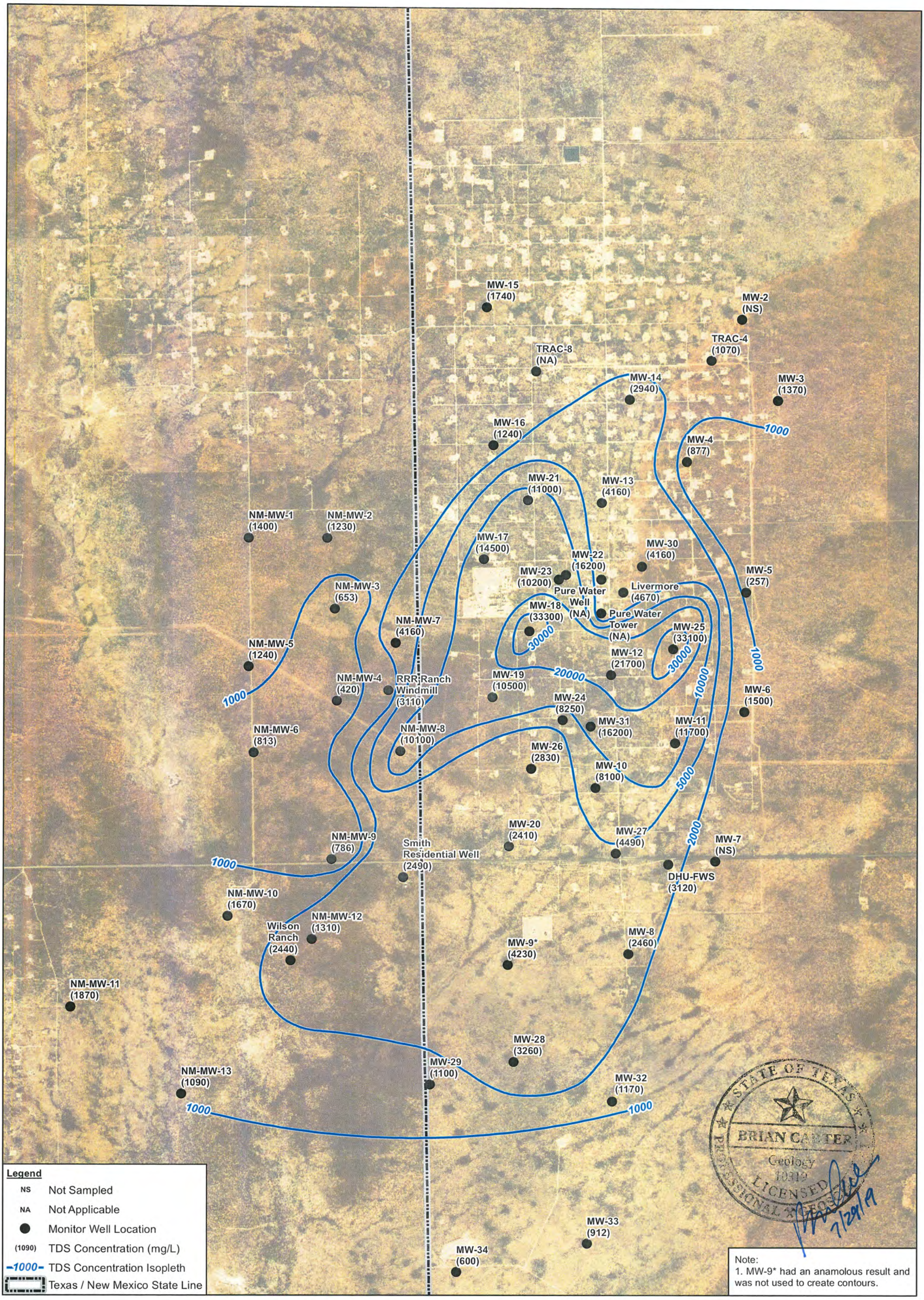
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Jul 25, 2019

JANUARY 2019 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

FIGURE 7

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR003.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

N

GHD

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Jul 29, 2019

APRIL 2019 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

FIGURE 8

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR006.mxd

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Recovery Wells	10-V-WW
	10-W-WW
	10-X-WW
	11-U-WW
	12-S-WW
	12-T-WW
	29-Q-WW
	29-R-WW
	30-O-WW
	31-N-WW
	43-K-WW
	43-L-WW
	43-M-WW
	44-H-WW
	44-I-WW
	44-II-WW
	44-J-WW
	45-EE-WW
	45-ER-WW
	45-F-WW
	45-G-WW
	58-A-WW
	58-B-WW
	58-BB-WW
	58-C-WW
	58-D-WW
Monitor Wells	43-K-1-MW
	44-I-1-MW
	44-J-1-MW
	44-J-2-MW
	44-J-3-MW
	44-J-4-MW
	44-J-5-MW
	45-E-1-MW
	45-E-2-MW
	45-E-3-MW
	45-F-1-MW
	45-FF-MW
	58-B-1-MW
	58-B-2-MW
	58-B-3-MW
	MW-2(1)
	MW-3(1)
	MW-4(1)
	MW-5(1)
	MW-6(1)
	MW-7(1)

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Monitor Wells	MW-8(1)
	MW-9(1)
	MW-10(1)
	MW-11(1)
	MW-12(1)
	MW-13(1)
	MW-14(1)
	MW-15(1)
	MW-16(1)
	MW-17(1)
	MW-18(1)
	MW-19(1)
	MW-20(1)
	MW-21(1)
	MW-22(1)
	MW-23(1)
	MW-24(1)
	MW-25(1)
	MW-26(1)
	MW-27(1)
	MW-28(1)
	MW-29(1)
	MW-30(1)
	MW-31(1)
	MW-32(1)
	MW-33(1)
	MW-34(1)
	NM-MW-1(1)
	NM-MW-2(1)
	NM-MW-3(1)
	NM-MW-4(1)
	NM-MW-5(1)
	NM-MW-6(1)
	NM-MW-7(1)
	NM-MW-8(1)
	NM-MW-9(1)
	NM-MW-10(1)
	NM-MW-11(1)
	NM-MW-12(1)
	NM-MW-13(1)

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Non-Remedial Wells	Livermore
	Pure Water Tower
	Pure Water Well
	RRR Ranch Windmill
	TRAC-4
	TRAC-8
	Smith Residence
	Wilson Ranch Well

Note:
(1) Indicates monitor wells installed in 2015, 2016, 2017, and 2019 that are voluntarily sampled quarterly.

Table 2

January 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
43-K-1-MW	NM	94.20	NA
44-I-1-MW	3,138.93	95.82	3,043.11
44-J-1-MW	3,134.50	95.57	3,038.93
44-J-2-MW	3,135.30	94.14	3,041.16
44-J-3-MW	3,140.19	95.66	3,044.53
44-J-4-MW	3,133.69	94.62	3,039.07
44-J-5-MW	3,134.75	95.81	3,038.94
45-E-1-MW	NM	87.95	NA
45-E-2-MW	NM	85.41	NA
45-E-3-MW	NM	88.41	NA
45-F-1-MW	NM	89.78	NA
45-FF-MW	3,122.70	90.31	3,032.39
58-B-1-MW	3,100.59	85.76	3,014.83
58-B-2-MW	3,111.91	84.75	3,027.16
58-B-3-MW	3,108.46	89.36	3,019.10
MW-2	3,204.56	DRY	3,094.00
MW-3	3,199.51	113.10	3,086.41
MW-4	3,189.69	115.65	3,074.04
MW-5	3,174.43	102.90	3,071.53
MW-6	3,165.25	93.94	3,071.31
MW-7	3,132.14	DRY	3,132.14
MW-8	3,107.34	84.81	3,022.53
MW-9	3,103.82	85.05	3,018.77
MW-10	3,139.71	97.35	3,042.36
MW-11	3,156.65	102.35	3,054.30
MW-12	3,151.33	94.92	3,056.41
MW-13	3,168.41	98.90	3,069.51
MW-14	3,182.69	106.97	3,075.72
MW-15	3,184.55	104.54	3,080.01
MW-16	3,167.93	99.86	3,068.07
MW-17	3,147.44	84.25	3,063.19
MW-18	3,155.01	95.88	3,059.13
MW-19	3,149.90	99.78	3,050.12
MW-20	3,120.09	88.57	3,031.52
MW-21	3,159.65	92.73	3,066.92
MW-22	3,152.50	87.90	3,064.60

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

January 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-23	3,151.66	87.17	3,064.49
MW-24	3,144.88	95.22	3,049.66
MW-25	3,165.45	103.39	3,062.06
MW-26	3,136.99	93.88	3,043.11
MW-27	3,126.99	91.86	3,035.13
MW-28	3,093.86	83.79	3,010.07
MW-29	3,098.60	100.04	2,998.56
MW-30	3,170.95	103.67	3,067.28
MW-31	3,145.41	94.59	3,050.82
NM-MW-1	3,124.90	71.63	3,053.27
NM-MW-2	3,152.86	96.14	3,056.72
NM-MW-3	3,146.86	81.68	3,065.18
NM-MW-4	3,154.21	110.34	3,043.87
NM-MW-5	3,109.14	99.61	3,009.53
NM-MW-6	3,093.23	87.64	3,005.59
NM-MW-7	3,147.67	95.88	3,051.79
NM-MW-8	3,138.62	98.03	3,040.59
NM-MW-9	3,118.18	94.39	3,023.79
NM-MW-10	3,066.32	79.27	2,987.05
NM-MW-11	3,075.44	83.28	2,992.16
NM-MW-12	3,105.47	96.51	3,008.96
NM-MW-13	3,051.17	84.15	2,967.02
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.95	NA
Livermore	NM	95.27	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 3

April 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
MW-2	3,204.56	DRY	3,204.56
MW-3	3,199.51	113.13	3,086.38
MW-4	3,189.69	115.70	3,073.99
MW-5	3,174.43	102.99	3,071.44
MW-6	3,165.25	93.74	3,071.51
MW-7	3,132.14	DRY	3,132.14
MW-8	3,107.34	84.52	3,022.82
MW-9	3,103.82	85.09	3,018.73
MW-10	3,139.71	97.22	3,042.49
MW-11	3,156.65	102.45	3,054.20
MW-12	3,151.33	94.75	3,056.58
MW-13	3,168.41	98.83	3,069.58
MW-14	3,182.69	106.96	3,075.73
MW-15	3,184.55	104.50	3,080.05
MW-16	3,167.93	99.86	3,068.07
MW-17	3,147.44	84.02	3,063.42
MW-18	3,155.01	95.76	3,059.25
MW-19	3,149.90	99.56	3,059.25
MW-20	3,120.09	88.37	3,031.72
MW-21	3,159.65	92.64	3,067.01
MW-22	3,152.50	87.79	3,064.71
MW-23	3,151.66	87.02	3,064.64
MW-24	3,144.88	95.05	3,049.83
MW-25	3,165.45	103.28	3,062.17
MW-26	3,136.99	93.74	3,043.25
MW-27	3,126.99	91.70	3,035.29
MW-28	3,093.86	83.89	3,009.97
MW-29	3,098.60	100.21	2,998.39
MW-30	3,170.95	103.52	3,067.43
MW-31	3,145.41	94.42	3,050.99

Table 3

April 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-32	3,090.28	81.18	3,009.10
MW-33	3,080.02	76.84	3,003.18
MW-34	3,069.95	71.21	2,998.74
NM-MW-1	3,124.90	71.61	3,053.29
NM-MW-2	3,152.86	96.20	3,056.66
NM-MW-3	3,146.86	91.70	3,055.16
NM-MW-4	3,154.21	110.36	3,043.85
NM-MW-5	3,109.14	99.74	3,009.40
NM-MW-6	3,093.23	87.81	3,005.42
NM-MW-7	3,147.67	95.91	3,051.76
NM-MW-8	3,138.62	98.01	3,040.61
NM-MW-9	3,118.18	94.37	3,023.81
NM-MW-10	3,066.32	79.37	2,986.95
NM-MW-11	3,075.44	82.82	2,992.62
NM-MW-12	3,105.47	96.60	3,008.87
NM-MW-13	3,051.17	84.27	2,966.90
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.95	NA
Livermore	NM	95.27	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 4

1st Half 2019 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		April	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**
Monitor Wells				
43-K-1-MW	**7,130**	**9,640**	NS	NS
44-I-1-MW	**3,320**	**4,580**	NS	NS
44-J-1-MW	**4,850**	**6,190**	NS	NS
44-J-2-MW	**4,930**	**7,020**	NS	NS
44-J-3-MW	**4,300**	**6,330**	NS	NS
44-J-4-MW	**4,470**	**6,130**	NS	NS
44-J-5-MW	**3,970**	**5,690**	NS	NS
45-E-1-MW	**2,680**	**3,650**	NS	NS
45-E-2-MW	**1,660**	**3,040**	NS	NS
45-E-3-MW	**3,760**	**5,240**	NS	NS
45-F-1-MW	**901**	**1,840**	NS	NS
45-FF-MW	**5,080**	**6,690**	NS	NS
58-B-1-MW	**5,240**	**8,120**	NS	NS
58-B-2-MW	**4,190**	**5,470**	NS	NS
58-B-3-MW	**900**	**2,070**	NS	NS
MW-2	NS	NS	NS	NS
MW-3	194	619	**636**	**1,370**
MW-4	258	426	**377**	877
MW-5	244	**1,050**	**300**	257
MW-6	**372**	**1,510**	**418**	**1,500**
MW-7	NS	NS	NS	NS
MW-8	**852**	**2,160**	**1,060**	**2,460**
MW-9	**2,620**	807	**1,200**	**4,230**
MW-10	**5,130**	**7,050**	**5,760**	**8,100**
MW-11	**8,240**	**9,730**	**7,840**	**11,700**
MW-12	**13,900**	**14,000**	**14,100**	**21,700**
MW-13	**1,880**	**3,810**	**2,020**	**4,160**
MW-14	**1,630**	**2,890**	**1,610**	**2,940**
MW-15	**995**	**2,290**	**1,110**	**1,740**
MW-16	**468**	**1,260**	**508**	**1,240**
MW-17	**10,100**	**11,100**	**9,440**	**14,500**
MW-18	**17,000**	**19,000**	**24,600**	**33,300**
MW-19	**6,570**	**9,300**	**7,000**	**10,500**
MW-20	**1,070**	**2,180**	**1,430**	**2,410**
MW-21	**7,530**	**9,420**	**6,970**	**11,000**
MW-22	**12,000**	**10,900**	**10,900**	**16,200**
MW-23	**7,910**	**9,780**	**6,540**	**10,200**
MW-24	**3,320**	**1,020**	**4,370**	**8,250**

Table 4

1st Half 2019 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		April	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**
MW-25	**23,500**	**29,800**	**24,100**	**33,100**
MW-26	**1,190**	**2,740**	**1,340**	**2,830**
MW-27	**2,420**	**4,110**	**2,830**	**4,490**
MW-28	**1,510**	**3,050**	**851**	**3,260**
MW-29	**359**	**7,270**	**508**	**1,100**
MW-30	**2,460**	**3,860**	**2,400**	**4,160**
MW-31	**11,100**	**10,300**	**11,800**	**16,200**
MW-32	NA	NA	**373**	**1,170**
MW-33	NA	NA	183	912
MW-34	NA	NA	69.9	600
NM-MW-1	256	**1,370**	**330**	**1,400**
NM-MW-2	**616**	**1,210**	**736**	**1,230**
NM-MW-3	**447**	**1,250**	259	653
NM-MW-4	35.7	**1,240**	188	420
NM-MW-5	142	**1,280**	175	**1,240**
NM-MW-6	113	813	161	813
NM-MW-7	**2,040**	**5,190**	**1,940**	**4,160**
NM-MW-8	**4,630**	**8,040**	**6,690**	**10,100**
NM-MW-9	195	**4,160**	297	786
NM-MW-10	290	**1,530**	**396**	**1,670**
NM-MW-11	154	**1,840**	185	**1,870**
NM-MW-12	**596**	**1,300**	**739**	**1,310**
NM-MW-13	165	**1,070**	225	**1,090**
Non-Remedial Wells				
Livermore	**2,530**	**4,330**	**2,660**	**4,670**
Pure Water Tower	NA	NA	NA	NA
Pure Water Well	NA	NA	NA	NA
RRR Ranch Windmill	**1,290**	**2,950**	47.4	**3,110**
Smith Residential Well	**1,020**	**2,230**	**1,510**	**2,490**
TRAC-4	**315**	**1,080**	**350**	**1,070**
TRAC-8	NA	NA	NA	NA
Wilson Ranch	**1,070**	**2,420**	**1,480**	**2,440**
DHU-FWS	**611**	**2,900**	**658**	**3,120**

Notes:

1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result was above the TCEQ Secondary Drinking Water Standard.

NA = Not Applicable
NS = Not Sampled

Appendices

Appendix A
Soil Boring Logs

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Dollarhide, Texas

HOLE DESIGNATION: MW-32
DATE COMPLETED: April 3, 2019
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well
0	TOPSOIL, silty, with slight gravel, brown, slightly moist, rootlets		
4	- caliche gravel content increasing with depth at 4.0ft BGS		
5	SP-SAND, cemented caliche gravel fragments, light brown and white caliche	5.00	
10	- rock powder, fine caliche sand with large caliche fragments at 10.0ft BGS		
15	- partially cemented sand nodules mixed with caliche at 15.0ft BGS		
20	- massive caliche fragments with rock powder at 20.0ft BGS		
30	- sand content increasing with depth at 30.0ft BGS		Bentonite/ Cement Grout
32	SP-SAND, fine grained, with some caliche and partially cemented sand nodules, light reddish brown, dry	32.00	
40	- light brown, nodule content increasing with depth at 40.0ft BGS		
43	- light reddish brown at 43.0ft BGS		
48	- thin bedded layers in friable, brittle sand nodules at 48.0ft BGS		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 4/3/2019

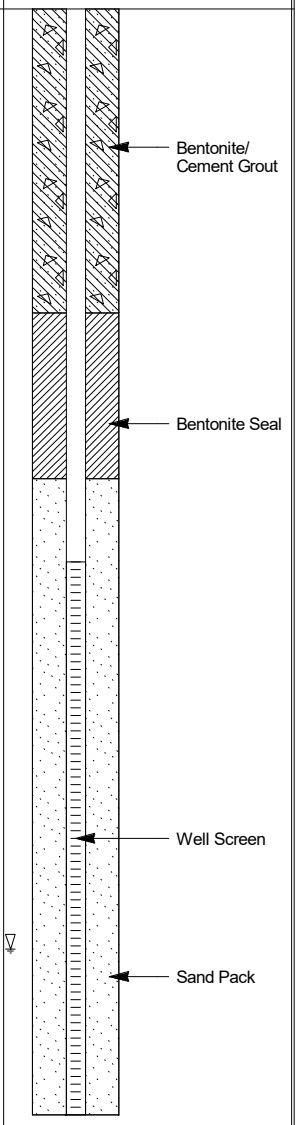
OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Dollarhide, Texas

HOLE DESIGNATION: MW-32
DATE COMPLETED: April 3, 2019
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well
52			
54			
56	- stronger red color, slightly moist at 55.0ft BGS		
58			
60			
62	- small gravel in friable sand nodules/plates at 61.0ft BGS		
64			
66			
68			
70			
72			
74	- gravel content increasing with depth at 74.0ft BGS		
76	SPG-SAND, little gravel, reddish brown, slightly moist	76.00	
78			
80			
82	- wet, some gray sand at 83.0ft BGS		
84			
86			
88			
90	BEDROCK, red bed	89.00	
92			
94			
96	END OF BOREHOLE @ 95.0ft BGS	95.00	
98			



WELL DETAILS
Screened interval:
70.00 to 90.00ft BGS
Length: 20ft
Sand Pack:
67.00 to 90.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 4/3/2019

OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Dollarhide, Texas

HOLE DESIGNATION: MW-33
DATE COMPLETED: April 5, 2019
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well
0	TOPSOIL, silty sand, with small nodular caliche fragments, brown-tan, dry		
6	SP-SAND, silty, light brown/white, dry - caliche nodular size increases with depth at 7.0ft BGS	6.00	
26	- nodular caliche decreases with depth at 26.0ft BGS		
30			Bentonite/ Cement Grout
31	SP-SAND, fine to medium grained, increasing sand nodules with depth, light red, dry	31.00	
46	- fragile sand nodules, nodules increasingly friable with depth, medium red at 46.0ft BGS		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 4/5/2019

OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Dollarhide, Texas

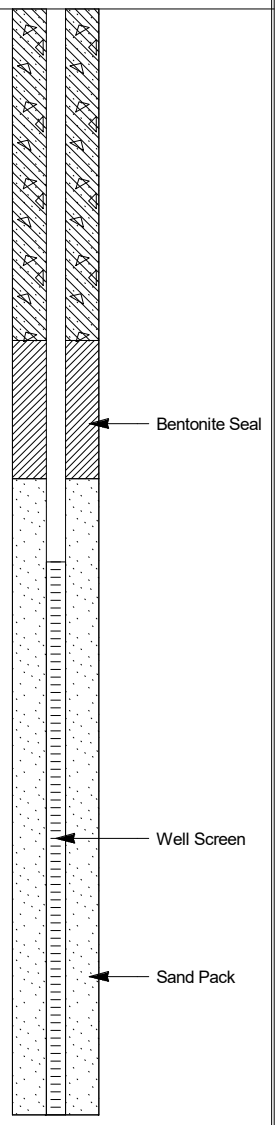
HOLE DESIGNATION: MW-33

DATE COMPLETED: April 5, 2019

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well
52	- pale red at 50.0ft BGS		
54			
56	- rich red at 55.0ft BGS		
58			
60			
62			
64	- 1' gravel zone, sandy, light brown to light red sand at 63.0ft BGS		
66			
68			
70	SP-SAND, gravel, reddish brown, dry	70.00	
72			
74			
76			
78	- gravel content increases at 78.0ft BGS		
80			
82	GPS-GRAVEL, sandy, with some cementation, gravel size increases with depth, medium reddish-brown, wet	81.00	
84			
86			
88	SP-SAND, gravelly, red, saturated	88.00	
90	BEDROCK, red bed, clay/shale, dockum, dry	90.00	
92	END OF BOREHOLE @ 91.0ft BGS	91.00	
94			
96			
98			



WELL DETAILS
Screened interval:
70.00 to 90.00ft BGS
Length: 20ft
Sand Pack:
67.00 to 90.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

WATER FOUND ▽ 4/5/2019

OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Dollarhide, Texas

HOLE DESIGNATION: MW-34
DATE COMPLETED: April 6, 2019
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well
2	TOPSOIL, sandy clay, with gravel, brown, moist		
3.00	SP-SAND, caliche sand, light brown/white, dry		
4			
6			
8	- light reddish brown at 8.0ft BGS		
10			
12	- rock powder and large caliche fragments, friable from here, white at 12.0ft BGS		
14			
16			
18			
20			
22	- light reddish brown at 22.0ft BGS		
24			
26			
28	- rock powder and large caliche fragments, white at 27.0ft BGS		
30	SP-SAND, fine grained, some caliche gravel, friable sand nodules, light brown, dry	30.00	Bentonite/ Cement Grout
32			
34			
36			
38			
40	- light reddish brown at 40.0ft BGS		
42	- 6" red sandstone layer at 41.5ft BGS - heavy friable sand stone nodules, sand, reddish brown at 43.0ft BGS		
44			
46			
48	- slight lithic gravel, sandstone nodules, fine grained sand, reddish brown, dry at 48.0ft BGS		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 4/6/2019

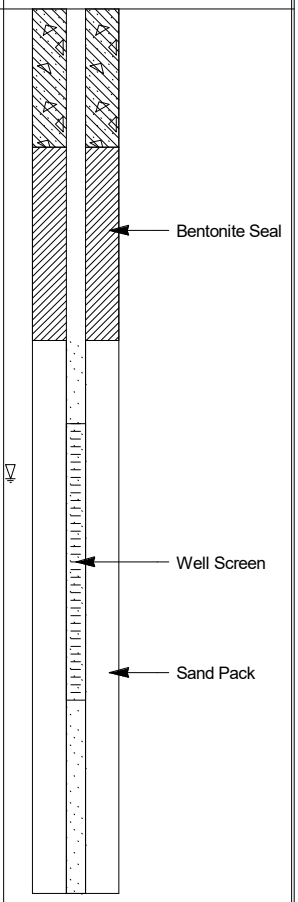
OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

STRATIGRAPHIC AND INSTRUMENTATION LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Dollarhide, Texas

HOLE DESIGNATION: MW-34
DATE COMPLETED: April 6, 2019
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
60	SP-SAND, gravelly, lithic gravel, fine to coarse grained gravel, reddish brown, dry	60.00
64	- sandy gravel zone, dry at 65.0ft BGS	
66	GP-GRAVEL, sandy, reddish brown, with slight clay, wet	67.00
72	BEDROCK, red bed shale, dry	71.50
82	END OF BOREHOLE @ 82.0ft BGS	82.00



WELL DETAILS
Screened interval:
65.00 to 76.00ft BGS
Length: 11ft
Sand Pack:
62.00 to 82.00ft BGS

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 4/6/2019

OVERBURDEN LOG 055270-2019 (MW-30 TO MW-34) 4.2.2019.GPJ CRA_CORP.GDT 5/30/19

Appendix B
Well Reports

STATE OF TEXAS WELL REPORT for Tracking #508591

Owner:	**Chevron EMC**	Owner Well #:	**MW-32**
Address:	**1500 Louisiana street room 38108 Houston, TX 77002**	Grid #:	**26-64-2**
Well Location:	**Dollarhide field sw 4400 road,hwy 128 andrews, TX 79714**	Latitude:	**32° 06' 01.84" N**
		Longitude:	**103° 02' 38.9" W**
Well County:	**Andrews**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **4/3/2019** Drilling End Date: **4/4/2019**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**92**

Drilling Method: **sonic**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
67	**91**	**Sand**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**62**	**Cement 10 Bags/Sacks**
62	**67**	**Bentonite 2 Chips**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Cascade Drilling LP**

7773 seldon ln
peoria, TX 85345

Driller Name: **Roger Rodriquez** License Number: **59618**

Comments: **No Data**

Report Amended on 7/29/2019 by Request #28378

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	5	topsoil
5	32	cailiche sand
32	76	sand
76	89	gravely sand
89	92	red bed shale

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Riser	New Plastic (PVC)	40	0	70
4.5	Screen	New Plastic (PVC)	40 0.010	70	90

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #508593

Owner:	**Chevron EMC**	Owner Well #:	**MW-33**
Address:	**1500 Louisiana street room 38108 Houston, TX 77002**	Grid #:	**26-64-2**
Well Location:	**Dollarhide field sw 4400 road,hwy 128 Andrews, TX 79714**	Latitude:	**32° 05' 14.6" N**
		Longitude:	**103° 02' 49.67" W**
Well County:	**Andrews**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **4/4/2019** Drilling End Date: **4/5/2019**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**90**

Drilling Method: **sonic**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
67	**91**	**Sand**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**62**	**Cement 15 Bags/Sacks**
62	**67**	**Bentonite 2 Chips**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Released to Imaging: 11/21/2023 10:32:34 AM

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Cascade Drilling LP**

7773 seldon ln
peoria, TX 85345

Driller Name: **Roger Rodriquez** License Number: **59618**

Comments: **No Data**

Report Amended on 7/29/2019 by Request #28377

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	6	topsoil
6	31	caliche
31	70	sand
70	81	gravely sand
81	89.5	sandy gravel
89.5	91	red bed

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Riser	New Plastic (PVC)	40	0	70
4.5	Screen	New Plastic (PVC)	40 0.010	70	90

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #508594

Owner:	**Chevron EMC**	Owner Well #:	**MW-34**
Address:	**1500 Louisiana street room 38108 Houston, TX 77002**	Grid #:	**26-64-2**
Well Location:	**Dollarhide field sw 4400 road hwy 128 Andrews, TX 79714**	Latitude:	**32° 05' 05.89" N**
		Longitude:	**103° 03' 40.9" W**
Well County:	**Winkler**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **4/6/2019** Drilling End Date: **4/6/2019**

Borehole:

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
8	0	82

Drilling Method: **sonic**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
62	82	Sand	12/20

Annular Seal Data:

Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
0	55	Cement 12 Bags/Sacks
62	67	Bentonite 4 Chips

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Plug Information:

Description (number of sacks & material)	Top Depth (ft.)	Bottom Depth (ft.)
sand	75	82

Released to Imaging: 11/21/2023 10:32:34 AM

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Cascade Drilling LP**

7773 seldon ln
peoria, TX 85345

Driller Name: **Roger Rodriquez** License Number: **59618**

Comments: **No Data**

Report Amended on 7/29/2019 by Request #28376

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**topsoil**
3	**33**	**caliche**
33	**60**	**sand**
60	**67**	**gravely sand**
67	**71.5**	**sandy gravel**
71.5	**82**	**red bed**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	**Riser**	**New Plastic (PVC)**	**40**	**0**	**65**
4.5	**Screen**	**New Plastic (PVC)**	**40 0.010**	**65**	**75**

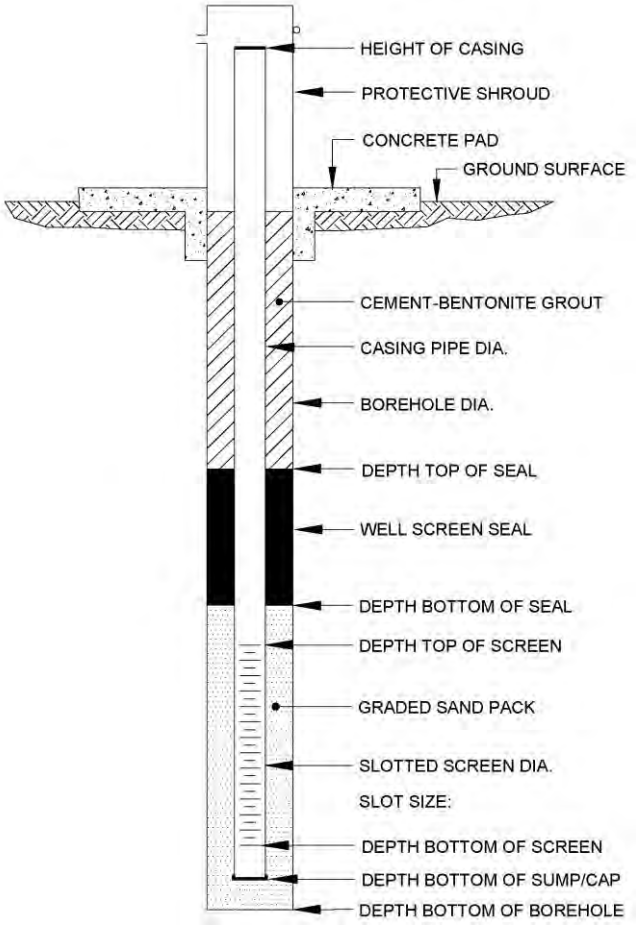
IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Appendix C
Monitor Well Construction Diagrams



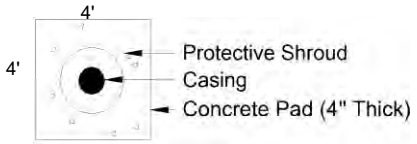
	2.6
	0
4"	
8"	
	62
	67
	70
4"	
0.02"	
	90
	92

ELEV. TOP OF CASING	3090.28 ft NAVD '88
ELEV. GROUND SURFACE	3087.73 ft NAVD '88
SCREENED INTERVAL	70.00 to 90.00 ft bgs
DATE INSTALLED	4/3/2019

Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	12/20 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks: ft bgs: feet below ground surface
NAVD: North American Vertical Datum



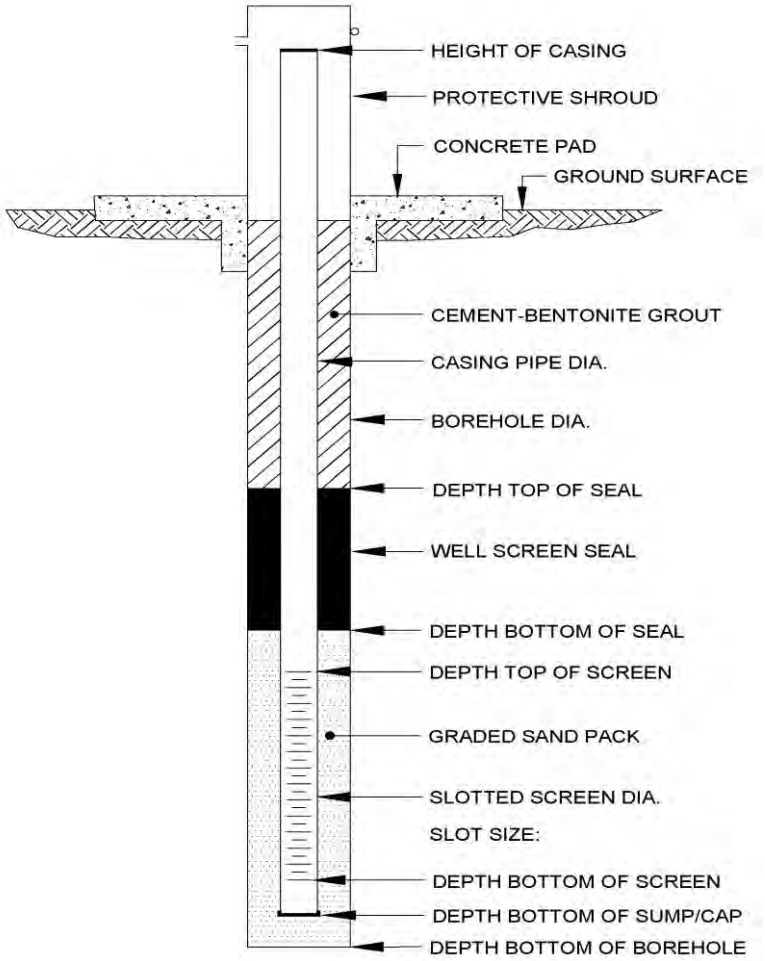
PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

4/3/2019 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Andrews County, Texas PROJECT LOCATION	**Monitor Well Cross Section MW-32**	**C** Appendix
BMW DRAWN BY:	JR REVIEWED BY:	BC APPROVED BY:				



SECTION VIEW

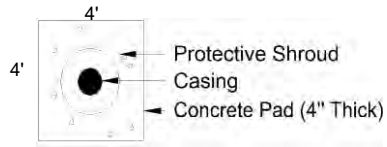
NOTE: All section dimensions are in feet (unless otherwise noted).

ELEV. TOP OF CASING	3,080.02 ft NAVD '88
ELEV. GROUND SURFACE	3,077.42 ft NAVD '88
SCREENED INTERVAL	62.00 to 102.00 ft bgs
DATE INSTALLED	4/5/2019

Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	12/20 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

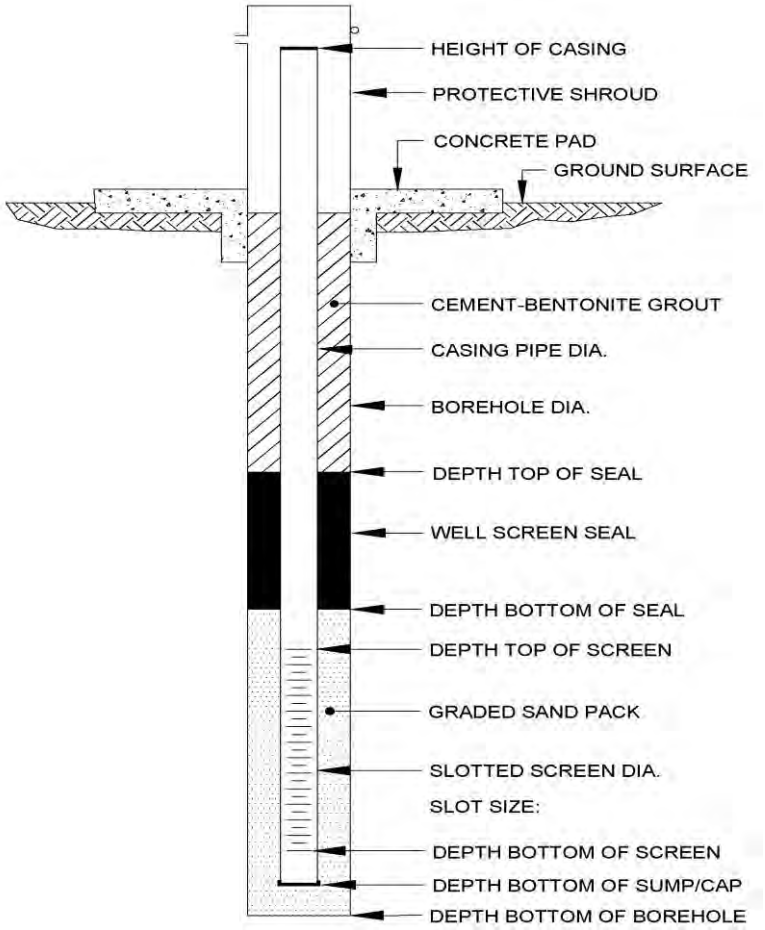
Remarks:
ft bgs: feet below ground surface
NAVD: North American Vertical Datum



PLAN VIEW

GHD SERVICES INC.

4/5/2019 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Andrews County, Texas PROJECT LOCATION	**Monitor Well Cross Section MW-33**
BMW DRAWN BY:	JR REVIEWED BY:	BC APPROVED BY:			**C** Appendix



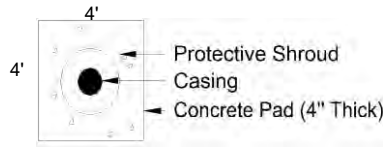
HEIGHT OF CASING	2.8
GROUND SURFACE	0
CASING PIPE DIA.	4"
BOREHOLE DIA.	8"
DEPTH TOP OF SEAL	55
DEPTH BOTTOM OF SEAL	65
DEPTH TOP OF SCREEN	67
SLOTTED SCREEN DIA.	4"
SLOT SIZE:	0.02"
DEPTH BOTTOM OF SCREEN	75
DEPTH BOTTOM OF SUMP/CAP	
DEPTH BOTTOM OF BOREHOLE	82

ELEV. TOP OF CASING	3,069.95 ft NAVD '88
ELEV. GROUND SURFACE	3,067.20 ft NAVD '88
SCREENED INTERVAL	65.00 to 76.00 ft bgs
DATE INSTALLED	4/6/2019

Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	12/20 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:
ft bgs: feet below ground surface
NAVD: North American Vertical Datum



PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

4/6/2019 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Andrews County, Texas PROJECT LOCATION	**Monitor Well Cross Section MW-34**
BMW DRAWN BY:	JR REVIEWED BY:	BC APPROVED BY:			**C** Appendix

Appendix D
Historical Groundwater Elevations

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Monitor Wells						
43-K-1-MW						
NM	02/28/07	NM	94.85	NA	NA	NA
	01/22/08	112.95	95.26	NA	NA	NA
	07/07/08	NM	95.33	NA	NA	NA
	08/26/09	114.28	95.69	NA	NA	NA
	01/28/09	112.95	95.32	NA	NA	NA
	08/16/10	NM	95.40	NA	NA	NA
	02/11/11	112.00	95.45	NA	NA	NA
	08/02/11	112.91	94.79	NA	NA	NA
	01/30/13	112.90	95.23	NA	NA	NA
	01/13/14	112.96	92.33	NA	NA	NA
	07/14/14	NM	95.29	NA	NA	NA
	01/12/15	NM	95.21	NA	NA	NA
	07/14/15	NM	95.00	NA	NA	NA
	01/25/16	116.47	94.90	NA	NA	NA
	07/20/16	NM	94.87	NA	NA	NA
	01/11/17	NM	94.82	NA	NA	NA
	07/13/17	NM	95.00	NA	NA	NA
	01/12/18	NM	94.61	NA	NA	NA
	07/02/18	NM	94.47	NA	NA	NA
	01/07/19	NM	94.20	NA	NA	NA
44-I-1-MW						
3,133.50	06/13/06	108.25	93.55	NA	NA	3,039.95
	08/15/06	110.00	96.85	NA	NA	3,036.65
	09/13/06	106.38	96.91	NA	NA	3,036.59
	09/20/06	110.00	96.72	NA	NA	3,036.78
	10/04/06	110.00	96.94	NA	NA	3,036.56
	12/08/06	111.05	97.09	NA	NA	3,036.41
	02/13/07	108.25	96.85	NA	NA	3,036.65
	02/28/07	NM	96.85	NA	NA	3,036.65
	07/30/07	108.25	96.88	NA	NA	3,036.62
	01/22/08	108.25	97.05	NA	NA	3,036.45
	07/09/08	108.25	97.13	NA	NA	3,036.37
	01/28/09	108.25	97.46	NA	NA	3,036.04
	08/27/09	106.20	97.57	NA	NA	3,035.93
	02/19/10	NM	97.31	NA	NA	3,036.19
	08/16/10	NM	97.30	NA	NA	3,036.20
	02/11/11	NM	96.68	NA	NA	3,036.82
	08/02/11	106.70	96.17	NA	NA	3,037.33
	08/15/12	106.65	96.21	NA	NA	3,037.29
	01/30/13	106.26	95.97	NA	NA	3,037.53
	07/30/13	106.65	96.18	NA	NA	3,037.32
	01/13/14	106.65	96.21	NA	NA	3,037.29
	07/14/14	111.17	95.85	NA	NA	3,037.65
	01/12/15	NM	96.27	NA	NA	3,037.23
	07/14/15	NM	95.91	NA	NA	3,037.59
3,138.93	01/25/16	106.94	95.96	NA	NA	3,042.97
	07/20/16	NM	96.10	NA	NA	3,042.83
	01/12/17	NM	95.84	NA	NA	3,043.09
	07/13/17	NM	96.03	NA	NA	3,042.90
	01/12/18	NM	95.64	NA	NA	3,043.29
	07/02/18	NM	95.94	NA	NA	3,042.99
	01/09/19	NM	95.82	NA	NA	3,043.11
44-J-1-MW						
3,134.50	06/13/06	111.04	96.31	NA	NA	3,038.19
	07/13/06	111.04	96.38	NA	NA	3,038.12
	08/15/06	111.00	96.53	NA	NA	3,037.97
	09/13/06	110.00	96.54	NA	NA	3,037.96
	09/20/06	111.00	96.40	NA	NA	3,038.10
	10/04/06	111.00	96.64	NA	NA	3,037.86
	12/08/06	111.97	97.41	NA	NA	3,037.09
	02/13/07	111.04	96.39	NA	NA	3,038.11
	02/28/07	NM	96.39	NA	NA	3,038.11
	07/30/07	111.04	96.51	NA	NA	3,037.99
	01/22/08	111.04	96.86	NA	NA	3,037.64
	07/09/08	111.04	96.90	NA	NA	3,037.60
	01/28/09	111.04	97.21	NA	NA	3,037.29
	08/28/09	110.40	97.27	NA	NA	3,037.23
	08/16/10	NM	96.82	NA	NA	3,037.68
	02/11/11	NM	96.42	NA	NA	3,038.08
	08/02/11	110.72	95.90	NA	NA	3,038.60
	08/15/12	110.04	96.03	NA	NA	3,038.47
	01/30/13	110.69	95.79	NA	NA	3,038.71
	07/30/13	110.80	95.92	NA	NA	3,038.58
	01/13/14	110.81	95.96	NA	NA	3,038.54
	07/14/14	110.76	95.91	NA	NA	3,038.59
	01/12/15	NM	96.01	NA	NA	3,038.49
	01/25/16	NM	95.72	NA	NA	3,038.78
	07/20/16	NM	95.85	NA	NA	3,038.65
	01/12/17	NM	95.60	NA	NA	3,038.90
	07/13/17	NM	95.80	NA	NA	3,038.70
	01/12/18	NM	95.41	NA	NA	3,039.09
	07/02/18	NM	95.70	NA	NA	3,038.80
	01/09/19	NM	95.57	NA	NA	3,038.93

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-2-MW						
3,135.30	06/13/06	109.87	91.83	NA	NA	3,043.47
	07/13/06	109.87	94.82	NA	NA	3,040.48
	08/15/06	110.00	94.97	NA	NA	3,040.33
	09/13/06	110.00	95.01	NA	NA	3,040.29
	09/20/06	110.00	94.97	NA	NA	3,040.33
	10/04/06	110.00	96.56	NA	NA	3,038.74
	12/08/06	114.32	95.14	NA	NA	3,040.16
	02/13/07	109.87	94.68	NA	NA	3,040.62
	02/28/07	NM	94.68	NA	NA	3,040.62
	07/30/07	109.87	94.82	NA	NA	3,040.48
	01/22/08	109.87	95.04	NA	NA	3,040.26
	07/09/08	109.87	95.10	NA	NA	3,040.20
	01/28/09	109.87	95.29	NA	NA	3,040.01
	08/28/09	109.00	95.37	NA	NA	3,039.93
	02/19/10	NM	94.56	NA	NA	3,040.74
	08/16/10	NM	95.04	NA	NA	3,040.26
	02/11/11	NM	94.99	NA	NA	3,040.31
	08/02/11	108.75	94.48	NA	NA	3,040.82
	08/15/12	108.80	94.99	NA	NA	3,040.31
	01/30/13	108.90	94.57	NA	NA	3,040.73
	07/30/13	109.00	94.61	NA	NA	3,040.69
	01/13/14	109.03	94.56	NA	NA	3,040.74
	07/14/14	109.02	94.65	NA	NA	3,040.65
	01/12/15	NM	94.68	NA	NA	3,040.62
	07/14/15	NM	94.43	NA	NA	3,040.87
	01/25/16	109.01	94.39	NA	NA	3,040.91
	07/20/16	NM	94.45	NA	NA	3,040.85
	01/12/17	NM	94.30	NA	NA	3,041.00
	07/13/17	NM	94.48	NA	NA	3,040.82
	01/12/18	NM	94.15	NA	NA	3,041.15
	07/02/18	NM	94.31	NA	NA	3,040.99
	01/09/19	NM	94.14	NA	NA	3,041.16
44-J-3-MW						
3,135.25	07/13/06	113.00	96.77	NA	NA	3,038.48
	08/07/06	113.00	96.94	NA	NA	3,038.31
	08/15/06	113.00	96.98	NA	NA	3,038.27
	09/13/06	113.00	97.01	NA	NA	3,038.24
	09/20/06	113.00	95.96	NA	NA	3,039.29
	10/04/06	113.00	97.10	NA	NA	3,038.15
	12/08/06	120.40	97.04	NA	NA	3,038.21
	01/22/08	114.55	97.63	NA	NA	3,037.62
	08/28/09	114.60	97.97	NA	NA	3,037.28
	02/19/10	NM	97.21	NA	NA	3,038.04
	08/16/10	NM	97.20	NA	NA	3,038.05
	02/11/11	110.00	96.74	NA	NA	3,038.51
	08/02/11	114.71	96.27	NA	NA	3,038.98
	01/30/13	114.83	96.17	NA	NA	3,039.08
	07/30/13	114.55	96.22	NA	NA	3,039.03
	01/13/14	114.55	96.25	NA	NA	3,039.00
	07/14/14	114.51	96.23	NA	NA	3,039.02
	01/12/15	NM	96.30	NA	NA	3,038.95
	07/14/15	NM	96.01	NA	NA	3,039.24
3,140.19	01/25/16	114.59	96.02	NA	NA	3,044.17
	07/20/16	NM	96.03	NA	NA	3,044.16
	01/13/17	NM	95.94	NA	NA	3,044.25
	07/13/17	NM	96.05	NA	NA	3,044.14
	01/12/18	NM	95.72	NA	NA	3,044.47
	07/02/18	NM	95.87	NA	NA	3,044.32
	01/09/19	NM	95.66	NA	NA	3,044.53
44-J-4-MW						
3,133.69	07/13/06	111.00	95.79	NA	NA	3,037.90
	08/07/06	111.00	95.97	NA	NA	3,037.72
	08/15/06	111.00	96.02	NA	NA	3,037.67
	09/13/06	111.00	96.04	NA	NA	3,037.65
	09/20/06	111.00	96.00	NA	NA	3,037.69
	10/04/06	111.00	96.11	NA	NA	3,037.58
	12/08/06	115.05	96.09	NA	NA	3,037.60
	01/22/08	113.40	96.77	NA	NA	3,036.92
	08/27/09	113.20	97.09	NA	NA	3,036.60
	02/19/10	NM	96.26	NA	NA	3,037.43
	08/16/10	NM	96.23	NA	NA	3,037.46
	02/11/11	110.00	95.74	NA	NA	3,037.95
	08/02/11	113.43	95.22	NA	NA	3,038.47
	01/30/13	113.25	95.14	NA	NA	3,038.55
	07/30/13	112.95	95.19	NA	NA	3,038.50
	01/13/14	112.93	95.22	NA	NA	3,038.47
	07/14/14	112.94	95.21	NA	NA	3,038.48
	01/12/15	NM	95.25	NA	NA	3,038.44
	07/14/15	NM	94.98	NA	NA	3,038.71
	01/25/16	112.98	94.98	NA	NA	3,038.71
	07/20/16	NM	95.03	NA	NA	3,038.66
	01/12/17	NM	94.92	NA	NA	3,038.77
	07/13/17	NM	95.03	NA	NA	3,038.66
	01/12/18	NM	94.71	NA	NA	3,038.98
	07/02/18	NM	94.87	NA	NA	3,038.82
	01/09/19	NM	94.62	NA	NA	3,039.07

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-5-MW						
3,134.75	06/13/06	110.00	96.83	NA	NA	3,037.92
	07/13/06	110.00	96.83	NA	NA	3,037.92
	08/07/06	110.00	97.00	NA	NA	3,037.75
	08/15/06	110.00	97.01	NA	NA	3,037.74
	09/13/06	110.00	97.05	NA	NA	3,037.70
	09/20/06	110.00	97.02	NA	NA	3,037.73
	10/04/06	110.00	97.13	NA	NA	3,037.62
	12/08/06	117.61	97.13	NA	NA	3,037.62
	01/22/08	113.70	97.53	NA	NA	3,037.22
	08/27/09	113.60	97.88	NA	NA	3,036.87
	08/16/10	NM	97.23	NA	NA	3,037.52
	02/11/11	NM	96.84	NA	NA	3,037.91
	08/02/11	113.71	96.32	NA	NA	3,038.43
	01/30/13	113.70	96.23	NA	NA	3,038.52
	07/30/13	113.23	96.30	NA	NA	3,038.45
	01/13/14	113.25	96.33	NA	NA	3,038.42
	07/14/14	113.20	96.30	NA	NA	3,038.45
	01/12/15	NM	96.38	NA	NA	3,038.37
	07/14/15	NM	96.10	NA	NA	3,038.65
	01/25/16	113.26	96.10	NA	NA	3,038.65
	07/20/16	NM	96.14	NA	NA	3,038.61
	01/12/17	NM	96.02	NA	NA	3,038.73
	07/13/17	NM	96.16	NA	NA	3,038.59
	01/12/18	NM	95.80	NA	NA	3,038.95
	07/02/18	NM	95.98	NA	NA	3,038.77
	01/09/19	NM	95.81	NA	NA	3,038.94
45-E-1-MW						
NM	09/12/06	NM	88.92	NA	NA	NA
	12/08/06	105.50	89.15	NA	NA	NA
	02/13/07	107.06	88.51	NA	NA	NA
	02/28/07	NM	88.51	NA	NA	NA
	07/30/07	107.06	88.95	NA	NA	NA
	01/22/08	107.06	90.04	NA	NA	NA
	07/09/08	107.06	89.31	NA	NA	NA
	01/28/09	107.06	89.31	NA	NA	NA
	08/27/09	102.95	89.72	NA	NA	NA
	08/16/10	NM	90.37	NA	NA	NA
	02/11/11	NM	90.36	NA	NA	NA
	08/02/11	103.00	89.70	NA	NA	NA
	01/25/16	103.31	90.58	NA	NA	NA
	07/20/16	NM	90.65	NA	NA	NA
	01/12/17	NM	90.20	NA	NA	NA
	07/13/17	NM	89.96	NA	NA	NA
	01/12/18	NM	88.74	NA	NA	NA
	07/02/18	NM	88.37	NA	NA	NA
	01/09/19	NM	87.95	NA	NA	NA
45-E-2-MW						
NM	09/12/06	NM	81.36	NA	NA	NA
	12/08/06	104.00	86.58	NA	NA	NA
	02/13/07	109.28	85.82	NA	NA	NA
	02/28/07	NM	85.82	NA	NA	NA
	07/30/07	109.28	86.49	NA	NA	NA
	01/22/08	109.28	86.58	NA	NA	NA
	07/09/08	109.28	86.86	NA	NA	NA
	01/28/09	109.28	86.79	NA	NA	NA
	08/26/09	104.20	87.28	NA	NA	NA
	08/16/10	NM	87.84	NA	NA	NA
	02/11/11	NM	88.03	NA	NA	NA
	08/02/11	104.25	87.21	NA	NA	NA
	08/15/12	104.23	87.82	NA	NA	NA
	01/25/16	104.48	88.34	NA	NA	NA
	07/20/16	NM	88.33	NA	NA	NA
	01/12/17	NM	87.93	NA	NA	NA
	07/13/17	NM	87.62	NA	NA	NA
	01/12/18	NM	86.23	NA	NA	NA
	07/02/18	NM	88.85	NA	NA	NA
	01/09/19	NM	85.41	NA	NA	NA
45-E-3-MW						
NM	02/13/07	107.95	88.68	NA	NA	NA
	02/28/07	NM	88.68	NA	NA	NA
	07/26/07	107.95	89.30	NA	NA	NA
	01/22/08	107.95	89.54	NA	NA	NA
	07/08/08	107.95	89.70	NA	NA	NA
	01/28/06	107.95	89.70	NA	NA	NA
	08/26/09	110.00	90.06	NA	NA	NA
	08/16/10	NM	90.63	NA	NA	NA
	02/11/11	107.00	90.74	NA	NA	NA
	08/02/11	107.91	90.19	NA	NA	NA
	07/20/16	NM	91.05	NA	NA	NA
	01/11/17	NM	90.50	NA	NA	NA
	07/13/17	NM	90.37	NA	NA	NA
	01/12/18	NM	89.35	NA	NA	NA
	07/02/18	NM	88.75	NA	NA	NA
	01/09/19	NM	88.41	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
45-F-1-MW						
NM	06/13/06	108.19	90.99	NA	NA	NA
	09/12/06	NM	90.15	NA	NA	NA
	12/08/06	107.40	90.34	NA	NA	NA
	02/13/07	108.19	90.22	NA	NA	NA
	02/28/07	NM	90.02	NA	NA	NA
	07/30/07	108.19	90.22	NA	NA	NA
	01/22/08	108.19	90.52	NA	NA	NA
	07/09/08	108.19	90.63	NA	NA	NA
	01/28/09	108.19	90.81	NA	NA	NA
	08/27/09	106.80	90.93	NA	NA	NA
	08/16/10	NM	91.41	NA	NA	NA
	02/11/11	NM	91.52	NA	NA	NA
	08/02/11	107.03	91.15	NA	NA	NA
	08/15/12	108.02	91.40	NA	NA	NA
	01/30/13	106.82	91.29	NA	NA	NA
	07/30/13	107.90	91.70	NA	NA	NA
	01/14/13	107.94	91.71	NA	NA	NA
	07/14/14	107.87	91.53	NA	NA	NA
	01/12/15	NM	91.78	NA	NA	NA
	07/14/15	NM	91.62	NA	NA	NA
	01/25/16	107.90	91.72	NA	NA	NA
	07/20/16	NM	91.56	NA	NA	NA
	01/12/17	NM	91.40	NA	NA	NA
	07/13/17	NM	90.96	NA	NA	NA
	01/12/18	NM	90.44	NA	NA	NA
	07/02/18	NM	90.14	NA	NA	NA
	01/09/19	NM	89.78	NA	NA	NA
45-FF-MW						
3,122.70	06/13/06	111.19	90.57	NA	NA	3,032.13
	09/12/06	NM	90.77	NA	NA	3,031.93
	12/08/06	114.00	90.94	NA	NA	3,031.76
	02/13/07	111.19	90.58	NA	NA	3,032.12
	02/28/07	NM	90.58	NA	NA	3,032.12
	07/30/07	111.19	90.81	NA	NA	3,031.89
	01/22/08	111.19	91.16	NA	NA	3,031.54
	07/09/08	111.19	91.22	NA	NA	3,031.48
	01/28/09	111.19	91.16	NA	NA	3,031.54
	08/27/09	107.50	91.54	NA	NA	3,031.16
	08/16/10	NM	92.01	NA	NA	3,030.69
	02/11/11	NM	92.19	NA	NA	3,030.51
	08/02/11	111.11	91.71	NA	NA	3,030.99
	01/30/13	110.91	91.92	NA	NA	3,030.78
	07/30/13	110.50	92.30	NA	NA	3,030.40
	01/13/14	110.51	92.33	NA	NA	3,030.37
	07/14/14	110.48	92.02	NA	NA	3,030.68
	01/12/15	NM	92.41	NA	NA	3,030.29
	07/14/15	NM	92.30	NA	NA	3,030.40
	01/25/16	110.94	92.36	NA	NA	3,030.34
	07/20/16	NM	92.16	NA	NA	3,030.54
	01/12/17	NM	91.96	NA	NA	3,030.74
	07/13/17	NM	91.55	NA	NA	3,031.15
	01/12/18	NM	90.90	NA	NA	3,031.80
	07/02/18	NM	90.54	NA	NA	3,032.16
	01/09/19	NM	90.31	NA	NA	3,032.39
58-B-1-MW						
3,100.59	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	87.12	NA	NA	3,013.47
	12/08/06	106.20	87.06	NA	NA	3,013.53
	02/13/07	105.50	87.02	NA	NA	3,013.57
	02/28/07	NM	87.02	NA	NA	3,013.57
	07/26/07	105.50	87.37	NA	NA	3,013.22
	01/22/08	105.50	87.79	NA	NA	3,012.80
	07/08/08	105.50	87.67	NA	NA	3,012.92
	01/28/09	104.79	87.67	NA	NA	3,012.92
	08/26/09	104.80	87.77	NA	NA	3,012.82
	08/16/10	NM	87.88	NA	NA	3,012.71
	02/11/11	NM	87.43	NA	NA	3,013.16
	08/05/11	104.55	87.00	NA	NA	3,013.59
	08/15/12	104.59	88.12	NA	NA	3,012.47
	01/30/13	107.53	87.76	NA	NA	3,012.83
	07/30/13	104.50	88.56	NA	NA	3,012.03
	01/13/14	104.56	88.60	NA	NA	3,011.99
	07/14/14	104.47	87.92	NA	NA	3,012.67
	01/12/15	NM	88.38	NA	NA	3,012.21
	07/22/16	NM	87.70	NA	NA	3,012.89
	01/13/17	NM	87.20	NA	NA	3,013.39
	07/13/17	NM	86.71	NA	NA	3,013.88
	01/12/18	NM	85.34	NA	NA	3,015.25
	07/02/18	NM	86.12	NA	NA	3,014.47
	01/07/19	NM	85.76	NA	NA	3,014.83

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
58-B-2-MW						
3,111.91	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	85.80	NA	NA	3,026.11
	12/08/06	NM	85.60	NA	NA	3,026.31
	02/13/07	105.45	85.61	NA	NA	3,026.30
	02/28/07	NM	85.61	NA	NA	3,026.30
	07/26/07	105.45	85.88	NA	NA	3,026.03
	01/22/08	105.45	86.28	NA	NA	3,025.63
	07/08/08	105.45	86.16	NA	NA	3,025.75
	01/28/09	105.45	86.23	NA	NA	3,025.68
	08/26/09	104.50	86.33	NA	NA	3,025.58
	08/16/10	NM	86.42	NA	NA	3,025.49
	02/11/11	NM	86.11	NA	NA	3,025.80
	08/02/11	105.12	85.75	NA	NA	3,026.16
	08/15/12	105.43	86.70	NA	NA	3,025.21
	07/14/15	NM	88.61	NA	NA	3,023.30
	01/25/16	105.08	85.92	NA	NA	3,025.99
	07/22/16	NM	86.40	NA	NA	3,025.51
	01/13/17	NM	85.92	NA	NA	3,025.99
	07/13/17	NM	85.55	NA	NA	3,026.36
	01/12/18	NM	86.47	NA	NA	3,025.44
	07/02/18	NM	85.10	NA	NA	3,026.81
	01/07/19	NM	84.75	NA	NA	3,027.16
58-B-3-MW						
3,108.46	02/13/07	100.75	89.48	NA	NA	3,018.98
	02/28/07	NM	89.48	NA	NA	3,018.98
	07/26/07	100.75	89.39	NA	NA	3,019.07
	01/22/08	100.75	89.71	NA	NA	3,018.75
	07/08/08	100.75	89.75	NA	NA	3,018.71
	01/28/09	100.75	89.81	NA	NA	3,018.65
	08/26/09	104.00	89.88	NA	NA	3,018.58
	08/16/10	NM	90.05	NA	NA	3,018.41
	02/11/11	102.00	90.02	NA	NA	3,018.44
	08/02/11	100.68	89.97	NA	NA	3,018.49
	08/15/12	100.73	90.11	NA	NA	3,018.35
	01/30/13	100.89	90.16	NA	NA	3,018.30
	07/30/13	100.80	90.24	NA	NA	3,018.22
	01/13/14	100.80	90.33	NA	NA	3,018.13
	07/14/14	100.79	90.39	NA	NA	3,018.07
	01/12/15	NM	89.80	NA	NA	3,018.66
	07/14/15	NM	90.06	NA	NA	3,018.40
	01/25/16	100.78	90.08	NA	NA	3,018.38
	07/22/16	NM	90.14	NA	NA	3,018.32
	01/10/17	NM	90.02	NA	NA	3,018.44
	07/13/17	NM	89.88	NA	NA	3,018.58
	01/12/18	NM	89.78	NA	NA	3,018.68
	07/02/18	NM	89.62	NA	NA	3,018.84
	01/07/19	NM	89.36	NA	NA	3,019.10
MW-2						
3,204.56	8/7/2015	NM	104.07	NA	NA	3,100.49
	1/25/2016	109.14	109.05	NA	NA	3,095.51
	7/21/2016	NM	109.10	NA	NA	3,095.46
	1/12/2017	NM	109.20	NA	NA	3,095.36
	4/10/2017	109.71	DRY	NA	NA	DRY
	7/13/2017	NM	109.14	NA	NA	3,095.42
	10/3/2017	109.33	DRY	NA	NA	DRY
	1/12/2018	109.15	DRY	NA	NA	DRY
	4/2/2018	109.15	DRY	NA	NA	DRY
	07/02/18	109.15	DRY	NA	NA	DRY
	10/1/2018	109.58	DRY	NA	NA	DRY
	1/8/2019	109.70	DRY	NA	NA	DRY
	4/9/2019	109.45	DRY	NA	NA	DRY
MW-3						
3,199.51	8/7/2015	NM	112.88	NA	NA	3,086.63
	1/25/2016	119.30	112.95	NA	NA	3,086.56
	7/21/2016	NM	113.02	NA	NA	3,086.49
	1/11/2017	NM	112.95	NA	NA	3,086.56
	4/10/2017	NM	113.17	NA	NA	3,086.34
	7/13/2017	NM	113.04	NA	NA	3,086.47
	10/3/2017	NM	113.11	NA	NA	3,086.40
	1/12/2018	NM	113.04	NA	NA	3,086.47
	4/2/2018	NM	113.20	NA	NA	3,086.31
	07/02/18	NM	113.09	NA	NA	3,086.42
	10/1/2018	NM	113.14	NA	NA	3,086.37
	1/8/2019	NM	113.10	NA	NA	3,086.41
	4/9/2019	NM	113.13	NA	NA	3,086.38

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-4						
3,189.69	8/7/2015	NM	115.53	NA	NA	3,074.16
	1/25/2016	116.91	115.60	NA	NA	3,074.09
	7/21/2016	NM	115.65	NA	NA	3,074.04
	1/11/2017	NM	115.55	NA	NA	3,074.14
	4/10/2017	117.74	115.67	NA	NA	3,074.02
	7/13/2017	NM	115.64	NA	NA	3,074.05
	10/3/2017	118.13	115.65	NA	NA	3,074.04
	1/12/2018	NM	115.60	NA	NA	3,074.09
	4/2/2018	NM	115.70	NA	NA	3,073.99
	07/02/18	NM	115.61	NA	NA	3,074.08
	10/1/2018	NM	115.72	NA	NA	3,073.97
	1/8/2019	NM	115.65	NA	NA	3,074.04
	4/9/2019	NM	115.70	NA	NA	3,073.99
MW-5						
3,174.43	8/7/2015	NM	102.74	NA	NA	3,071.69
	1/25/2016	116.91	102.78	NA	NA	3,071.65
	7/21/2016	NM	102.84	NA	NA	3,071.59
	1/11/2017	NM	102.80	NA	NA	3,071.63
	4/10/2017	116.95	102.85	NA	NA	3,071.58
	7/13/2017	NM	102.88	NA	NA	3,071.55
	10/3/2017	NM	102.91	NA	NA	3,071.52
	1/12/2018	NM	102.95	NA	NA	3,071.48
	4/2/2018	NM	102.94	NA	NA	3,071.49
	07/02/18	NM	102.93	NA	NA	3,071.50
	10/1/2018	NM	103.00	NA	NA	3,071.43
	1/8/2019	NM	102.90	NA	NA	3,071.53
	4/9/2019	NM	102.99	NA	NA	3,071.44
MW-6						
3,165.25	8/7/2015	NM	93.97	NA	NA	3,071.28
	1/25/2016	130.94	94.21	NA	NA	3,071.04
	7/21/2016	NM	94.28	NA	NA	3,070.97
	1/11/2017	NM	94.01	NA	NA	3,071.24
	4/10/2017	130.83	94.21	NA	NA	3,071.04
	7/13/2017	NM	94.11	NA	NA	3,071.14
	10/3/2017	NM	94.14	NA	NA	3,071.11
	1/12/2018	NM	93.80	NA	NA	3,071.45
	4/2/2018	NM	94.18	NA	NA	3,071.07
	07/02/18	NM	93.89	NA	NA	3,071.36
	10/1/2018	NM	93.90	NA	NA	3,071.35
	1/8/2019	NM	93.94	NA	NA	3,071.31
	4/9/2019	NM	93.74	NA	NA	3,071.51
MW-7						
3,132.14	8/7/2015	NM	112.10	NA	NA	3,020.04
	1/25/2016	117.20	112.77	NA	NA	3,019.37
	7/21/2016	NM	114.50	NA	NA	3,017.64
	1/11/2017	NM	115.92	NA	NA	3,016.22
	4/10/2017	116.73	DRY	NA	NA	DRY
	7/13/2017	116.55	DRY	NA	NA	DRY
	10/3/2017	116.46	DRY	NA	NA	DRY
	1/12/2018	NM	DRY	NA	NA	DRY
	4/2/2018	116.66	DRY	NA	NA	DRY
	07/02/18	116.70	DRY	NA	NA	DRY
	10/1/2018	116.61	DRY	NA	NA	DRY
	1/8/2019	116.61	DRY	NA	NA	DRY
	4/5/2019	117.09	DRY	NA	NA	DRY
MW-8						
3,107.34	8/7/2015	NM	85.03	NA	NA	3,022.31
	1/25/2016	110.98	85.46	NA	NA	3,021.88
	7/21/2016	NM	85.10	NA	NA	3,022.24
	1/13/2017	NM	84.95	NA	NA	3,022.39
	4/7/2017	110.98	85.00	NA	NA	3,022.34
	7/13/2017	NM	84.68	NA	NA	3,022.66
	10/3/2017	NM	84.86	NA	NA	3,022.48
	1/12/2018	NM	84.75	NA	NA	3,022.59
	4/2/2018	NM	85.20	NA	NA	3,022.14
	07/02/18	NM	85.09	NA	NA	3,022.25
	10/1/2018	NM	84.83	NA	NA	3,022.51
	1/8/2019	NM	84.81	NA	NA	3,022.53
	4/5/2019	NM	84.52	NA	NA	3,022.82
MW-9						
3,103.82	8/7/2015	NM	85.68	NA	NA	3,018.14
	1/25/2016	105.30	85.87	NA	NA	3,017.95
	7/21/2016	NM	85.80	NA	NA	3,018.02
	1/13/2017	NM	85.76	NA	NA	3,018.06
	4/7/2017	105.28	85.65	NA	NA	3,018.17
	7/13/2017	NM	85.50	NA	NA	3,018.32
	10/3/2017	NM	85.53	NA	NA	3,018.29
	1/12/2018	NM	85.38	NA	NA	3,018.44
	4/2/2018	NM	85.73	NA	NA	3,018.09
	07/02/18	NM	85.24	NA	NA	3,018.58
	10/1/2018	NM	85.24	NA	NA	3,018.58
	1/7/2019	NM	85.05	NA	NA	3,018.77
	4/5/2019	NM	85.09	NA	NA	3,018.73

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-10						
3,139.71	8/7/2015	NM	97.21	NA	NA	3,042.50
	1/25/2016	116.50	97.33	NA	NA	3,042.38
	7/20/2016	NM	97.18	NA	NA	3,042.53
	1/12/2017	NM	97.21	NA	NA	3,042.50
	4/7/2017	116.36	97.22	NA	NA	3,042.49
	7/13/2017	NM	97.12	NA	NA	3,042.59
	10/3/2017	NM	97.35	NA	NA	3,042.36
	1/12/2018	NM	97.30	NA	NA	3,042.41
	4/2/2018	NM	97.41	NA	NA	3,042.30
	07/02/18	NM	97.24	NA	NA	3,042.47
	10/1/2018	NM	97.35	NA	NA	3,042.36
	1/8/2019	NM	97.35	NA	NA	3,042.36
	4/5/2019	NM	97.22	NA	NA	3,042.49
MW-11						
3,156.65	8/7/2015	NM	102.00	NA	NA	3,054.65
	1/25/2016	110.23	102.08	NA	NA	3,054.57
	7/21/2016	NM	102.16	NA	NA	3,054.49
	1/11/2017	NM	102.10	NA	NA	3,054.55
	4/10/2017	110.02	102.22	NA	NA	3,054.43
	7/13/2017	NM	102.22	NA	NA	3,054.43
	10/3/2017	NM	102.28	NA	NA	3,054.37
	1/12/2018	NM	102.18	NA	NA	3,054.47
	4/2/2018	NM	102.39	NA	NA	3,054.26
	07/02/18	NM	102.28	NA	NA	3,054.37
	10/1/2018	NM	102.35	NA	NA	3,054.30
	1/8/2019	NM	102.35	NA	NA	3,054.30
	4/9/2019	NM	102.45	NA	NA	3,054.20
MW-12						
3,151.33	8/7/2015	NM	94.70	NA	NA	3,056.63
	1/25/2016	114.18	94.68	NA	NA	3,056.65
	7/20/2016	NM	94.69	NA	NA	3,056.64
	1/11/2017	NM	94.70	NA	NA	3,056.63
	4/7/2017	114.15	94.66	NA	NA	3,056.67
	7/13/2017	NM	94.60	NA	NA	3,056.73
	10/3/2017	NM	94.87	NA	NA	3,056.46
	1/12/2018	NM	94.66	NA	NA	3,056.67
	4/2/2018	NM	94.74	NA	NA	3,056.59
	07/02/18	NM	94.71	NA	NA	3,056.62
	10/1/2018	NM	94.87	NA	NA	3,056.46
	1/8/2019	NM	94.92	NA	NA	3,056.41
	4/10/2019	NM	94.75	NA	NA	3,056.58
MW-13						
3,168.41	8/7/2015	NM	98.61	NA	NA	3,069.80
	1/25/2016	127.85	98.88	NA	NA	3,069.53
	7/21/2016	NM	98.78	NA	NA	3,069.63
	1/11/2017	NM	98.49	NA	NA	3,069.92
	4/10/2017	127.90	98.70	NA	NA	3,069.71
	7/13/2017	NM	98.60	NA	NA	3,069.81
	10/3/2017	NM	98.70	NA	NA	3,069.71
	1/12/2018	NM	98.61	NA	NA	3,069.80
	4/2/2018	NM	98.80	NA	NA	3,069.61
	07/02/18	NM	98.74	NA	NA	3,069.67
	10/1/2018	NM	98.88	NA	NA	3,069.53
	1/8/2019	NM	98.90	NA	NA	3,069.51
	4/10/2019	NM	98.83	NA	NA	3,069.58
MW-14						
3,182.69	8/7/2015	NM	106.69	NA	NA	3,076.00
	1/25/2016	124.62	106.78	NA	NA	3,075.91
	7/21/2016	NM	106.90	NA	NA	3,075.79
	1/11/2017	NM	106.78	NA	NA	3,075.91
	4/10/2017	124.48	107.01	NA	NA	3,075.68
	7/13/2017	NM	106.88	NA	NA	3,075.81
	10/3/2017	NM	106.95	NA	NA	3,075.74
	1/12/2018	NM	106.85	NA	NA	3,075.84
	4/2/2018	NM	107.00	NA	NA	3,075.69
	07/02/18	NM	106.91	NA	NA	3,075.78
	10/1/2018	NM	106.98	NA	NA	3,075.71
	1/8/2019	NM	106.97	NA	NA	3,075.72
	4/9/2019	NM	106.96	NA	NA	3,075.73
MW-15						
3,184.55	8/7/2015	NM	104.29	NA	NA	3,080.26
	1/25/2016	126.36	104.56	NA	NA	3,079.99
	7/21/2016	NM	104.60	NA	NA	3,079.95
	1/11/2017	NM	104.45	NA	NA	3,080.10
	4/10/2017	NM	104.76	NA	NA	3,079.79
	7/13/2017	NM	104.52	NA	NA	3,080.03
	10/3/2017	NM	104.66	NA	NA	3,079.89
	1/12/2018	NM	104.45	NA	NA	3,080.10
	4/2/2018	NM	104.63	NA	NA	3,079.92
	07/02/18	NM	104.56	NA	NA	3,079.99
	10/1/2018	NM	104.57	NA	NA	3,079.98
	1/8/2019	NM	104.54	NA	NA	3,080.01
	4/10/2019	NM	104.50	NA	NA	3,080.05

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-16						
3,167.93	8/7/2015	NM	99.76	NA	NA	3,068.17
	1/25/2016	119.30	99.86	NA	NA	3,068.07
	7/21/2016	NM	100.02	NA	NA	3,067.91
	1/11/2017	NM	99.88	NA	NA	3,068.05
	4/10/2017	119.07	100.03	NA	NA	3,067.90
	7/13/2017	NM	99.94	NA	NA	3,067.99
	10/3/2017	NM	100.01	NA	NA	3,067.92
	1/12/2018	NM	99.83	NA	NA	3,068.10
	4/2/2018	NM	99.97	NA	NA	3,067.96
	07/02/18	NM	99.92	NA	NA	3,068.01
	10/1/2018	NM	99.93	NA	NA	3,068.00
	1/8/2019	NM	99.86	NA	NA	3,068.07
	4/10/2019	NM	99.86	NA	NA	3,068.07
MW-17						
3,147.44	8/7/2015	NM	83.74	NA	NA	3,063.70
	1/25/2016	118.27	84.18	NA	NA	3,063.26
	7/20/2016	NM	82.79	NA	NA	3,064.65
	1/11/2017	NM	83.75	NA	NA	3,063.69
	4/10/2017	118.26	84.27	NA	NA	3,063.17
	7/13/2017	NM	84.06	NA	NA	3,063.38
	10/3/2017	NM	84.08	NA	NA	3,063.36
	1/12/2018	NM	83.79	NA	NA	3,063.65
	4/2/2018	NM	84.26	NA	NA	3,063.18
	07/02/18	NM	84.32	NA	NA	3,063.12
	10/1/2018	NM	84.41	NA	NA	3,063.03
	1/8/2019	NM	84.25	NA	NA	3,063.19
	4/10/2019	NM	84.02	NA	NA	3,063.42
MW-18						
3,155.01	8/7/2015	NM	95.94	NA	NA	3,059.07
	1/25/2016	122.40	95.81	NA	NA	3,059.20
	7/20/2016	NM	95.91	NA	NA	3,059.10
	1/12/2017	NM	95.82	NA	NA	3,059.19
	4/7/2017	122.37	95.76	NA	NA	3,059.25
	7/13/2017	NM	95.67	NA	NA	3,059.34
	10/3/2017	NM	95.87	NA	NA	3,059.14
	1/12/2018	NM	95.72	NA	NA	3,059.29
	4/2/2018	NM	95.80	NA	NA	3,059.21
	07/02/18	NM	95.74	NA	NA	3,059.27
	10/1/2018	NM	95.90	NA	NA	3,059.11
	1/8/2019	NM	95.88	NA	NA	3,059.13
	4/9/2019	NM	95.76	NA	NA	3,059.25
MW-19						
3,149.90	8/7/2015	NM	99.58	NA	NA	3,050.32
	1/25/2016	115.04	99.68	NA	NA	3,050.22
	7/20/2016	NM	99.78	NA	NA	3,050.12
	1/12/2017	NM	99.68	NA	NA	3,050.22
	4/7/2017	115.03	99.78	NA	NA	3,050.12
	7/13/2017	NM	99.61	NA	NA	3,050.29
	10/3/2017	NM	99.83	NA	NA	3,050.07
	1/12/2018	NM	99.63	NA	NA	3,050.27
	4/2/2018	NM	99.69	NA	NA	3,050.21
	07/02/18	NM	99.85	NA	NA	3,050.05
	10/1/2018	NM	99.75	NA	NA	3,050.15
	1/8/2019	NM	99.78	NA	NA	3,050.12
	4/9/2019	NM	99.56	NA	NA	3,050.34
MW-20						
3,120.09	8/7/2015	NM	88.96	NA	NA	3,031.13
	1/25/2016	112.91	88.96	NA	NA	3,031.13
	7/20/2016	NM	89.07	NA	NA	3,031.02
	1/12/2017	NM	89.00	NA	NA	3,031.09
	4/7/2017	112.65	88.97	NA	NA	3,031.12
	7/13/2017	NM	88.76	NA	NA	3,031.33
	10/3/2017	NM	88.88	NA	NA	3,031.21
	1/12/2018	NM	88.75	NA	NA	3,031.34
	4/2/2018	NM	88.67	NA	NA	3,031.42
	07/02/18	NM	88.69	NA	NA	3,031.40
	10/1/2018	NM	88.59	NA	NA	3,031.50
	1/8/2019	NM	88.57	NA	NA	3,031.52
	4/5/2019	NM	88.37	NA	NA	3,031.72
MW-21						
3,159.65	7/21/2016	NM	92.31	NA	NA	3,067.34
	1/12/2017	NM	92.41	NA	NA	3,067.24
	4/10/2017	123.74	92.65	NA	NA	3,067.00
	7/13/2017	NM	92.55	NA	NA	3,067.10
	10/3/2017	NM	92.65	NA	NA	3,067.00
	1/12/2018	NM	92.47	NA	NA	3,067.18
	4/2/2018	NM	92.64	NA	NA	3,067.01
	07/02/18	NM	92.65	NA	NA	3,067.00
	10/1/2018	NM	92.74	NA	NA	3,066.91
	1/8/2019	NM	92.73	NA	NA	3,066.92
	4/10/2019	NM	92.64	NA	NA	3,067.01

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-22						
3,152.50	4/10/2017	117.94	87.78	NA	NA	3,064.72
	7/13/2017	NM	87.64	NA	NA	3,064.86
	10/3/2017	NM	87.71	NA	NA	3,064.79
	1/12/2018	NM	87.50	NA	NA	3,065.00
	4/2/2018	NM	87.75	NA	NA	3,064.75
	07/02/18	NM	87.75	NA	NA	3,064.75
	10/1/2018	NM	87.85	NA	NA	3,064.65
	1/8/2019	NM	87.90	NA	NA	3,064.60
	4/10/2019	NM	87.79	NA	NA	3,064.71
MW-23						
3,151.66	7/21/2016	NM	87.03	NA	NA	3,064.63
	1/11/2017	NM	86.74	NA	NA	3,064.92
	4/10/2017	124.94	87.02	NA	NA	3,064.64
	7/13/2017	NM	86.86	NA	NA	3,064.80
	10/3/2017	NM	86.95	NA	NA	3,064.71
	1/12/2018	NM	86.75	NA	NA	3,064.91
	4/2/2018	NM	86.98	NA	NA	3,064.68
	07/02/18	NM	86.98	NA	NA	3,064.68
	10/1/2018	NM	87.08	NA	NA	3,064.58
	1/8/2019	NM	87.17	NA	NA	3,064.49
	4/10/2019	NM	87.02	NA	NA	3,064.64
MW-24						
3,144.88	7/20/2016	NM	95.02	NA	NA	3,049.86
	1/12/2017	NM	95.11	NA	NA	3,049.77
	4/7/2017	115.39	95.15	NA	NA	3,049.73
	7/13/2017	NM	95.11	NA	NA	3,049.77
	10/3/2017	NM	95.33	NA	NA	3,049.55
	1/12/2018	NM	95.18	NA	NA	3,049.70
	4/2/2018	NM	95.23	NA	NA	3,049.65
	07/02/18	NM	95.12	NA	NA	3,049.76
	10/1/2018	NM	95.25	NA	NA	3,049.63
	1/8/2019	NM	95.22	NA	NA	3,049.66
	4/9/2019	NM	95.05	NA	NA	3,049.83
MW-25						
3,165.45	7/21/2016	NM	103.05	NA	NA	3,062.40
	1/11/2017	NM	103.00	NA	NA	3,062.45
	4/10/2017	116.81	103.26	NA	NA	3,062.19
	7/13/2017	NM	103.17	NA	NA	3,062.28
	10/3/2017	NM	103.20	NA	NA	3,062.25
	1/12/2018	NM	103.04	NA	NA	3,062.41
	4/2/2018	NM	103.50	NA	NA	3,061.95
	07/02/18	NM	103.29	NA	NA	3,062.16
	10/1/2018	NM	103.34	NA	NA	3,062.11
	1/8/2019	NM	103.39	NA	NA	3,062.06
	4/9/2019	NM	103.28	NA	NA	3,062.17
MW-26						
3,136.99	1/12/2017	NM	93.78	NA	NA	3,043.21
	4/7/2017	108.41	93.83	NA	NA	3,043.16
	7/13/2017	NM	93.75	NA	NA	3,043.24
	10/3/2017	NM	94.00	NA	NA	3,042.99
	1/12/2018	NM	93.76	NA	NA	3,043.23
	4/2/2018	NM	93.89	NA	NA	3,043.10
	07/02/18	NM	94.00	NA	NA	3,042.99
	10/1/2018	NM	93.91	NA	NA	3,043.08
	1/6/2019	NM	93.88	NA	NA	3,043.11
	4/9/2019	NM	93.74	NA	NA	3,043.25
MW-27						
3,126.99	7/20/2016	NM	91.61	NA	NA	3,035.38
	1/11/2017	NM	91.40	NA	NA	3,035.59
	4/7/2017	108.40	91.65	NA	NA	3,035.34
	7/13/2017	NM	91.60	NA	NA	3,035.39
	10/3/2017	NM	91.80	NA	NA	3,035.19
	1/12/2018	NM	91.78	NA	NA	3,035.21
	4/2/2018	NM	92.08	NA	NA	3,034.91
	07/02/18	NM	91.98	NA	NA	3,035.01
	10/1/2018	NM	92.07	NA	NA	3,034.92
	1/8/2019	NM	91.86	NA	NA	3,035.13
	4/5/2019	NM	91.70	NA	NA	3,035.29
MW-28						
3,093.86	1/10/2017	NM	83.60	NA	NA	3,010.26
	4/7/2017	104.02	83.74	NA	NA	3,010.12
	7/13/2017	NM	83.78	NA	NA	3,010.08
	10/3/2017	NM	83.79	NA	NA	3,010.07
	1/12/2018	NM	83.84	NA	NA	3,010.02
	4/2/2018	NM	83.84	NA	NA	3,010.02
	07/02/18	NM	83.89	NA	NA	3,009.97
	10/1/2018	NM	83.62	NA	NA	3,010.24
	1/9/2019	NM	83.79	NA	NA	3,010.07
	4/9/2019	NM	83.89	NA	NA	3,009.97

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-29						
3,098.60	1/10/2017	NM	99.85	NA	NA	2,998.75
	4/7/2017	113.55	99.97	NA	NA	2,998.63
	7/13/2017	NM	100.00	NA	NA	2,998.60
	10/3/2017	NM	99.95	NA	NA	2,998.65
	1/12/2018	NM	100.08	NA	NA	2,998.52
	4/2/2018	NM	100.17	NA	NA	2,998.43
	07/02/18	NM	100.16	NA	NA	2,998.44
	10/1/2018	NM	100.11	NA	NA	2,998.49
	1/7/2019	NM	100.04	NA	NA	2,998.56
	4/5/2019	NM	100.21	NA	NA	2,998.39
MW-30						
3,170.95	7/13/2017	NM	103.41	NA	NA	3,067.54
	10/3/2017	NM	103.57	NA	NA	3,067.38
	1/12/2018	NM	103.19	NA	NA	3,067.76
	4/2/2018	NM	103.71	NA	NA	3,067.24
	07/02/18	NM	103.46	NA	NA	3,067.49
	10/1/2018	NM	103.58	NA	NA	3,067.37
	1/8/2019	NM	103.67	NA	NA	3,067.28
	4/10/2019	NM	103.52	NA	NA	3,067.43
MW-31						
3,145.41	7/13/2017	NM	94.50	NA	NA	3,050.91
	10/3/2017	NM	94.74	NA	NA	3,050.67
	1/12/2018	NM	94.60	NA	NA	3,050.81
	4/2/2018	NM	94.60	NA	NA	3,050.81
	07/02/18	NM	94.50	NA	NA	3,050.91
	10/1/2018	NM	94.62	NA	NA	3,050.79
	1/8/2019	NM	94.59	NA	NA	3,050.82
	4/5/2019	NM	94.42	NA	NA	3,050.99
MW-32						
	4/10/2019	94.04	81.18	NA	NA	-81.18
MW-33						
	4/10/2019	92.98	76.84	NA	NA	-76.84
MW-34						
	4/10/2019	78.04	71.21	NA	NA	-71.21
NM-MW-1						
3,124.90	12/2/2015	NM	72.01	NA	NA	3,052.89
	1/25/2016	106.86	72.01	NA	NA	3,052.89
	7/22/2016	NM	71.90	NA	NA	3,053.00
	1/12/2017	NM	71.73	NA	NA	3,053.17
	4/7/2017	106.36	71.78	NA	NA	3,053.12
	7/13/2017	NM	71.67	NA	NA	3,053.23
	10/3/2017	NM	71.65	NA	NA	3,053.25
	1/12/2018	NM	71.63	NA	NA	3,053.27
	4/2/2018	NM	71.66	NA	NA	3,053.24
	07/02/18	NM	70.65	NA	NA	3,054.25
	10/1/2018	NM	71.71	NA	NA	3,053.19
	1/7/2019	NM	71.63	NA	NA	3,053.27
	4/4/2019	NM	71.61	NA	NA	3,053.29
NM-MW-2						
3,152.86	12/2/2015	NM	96.14	NA	NA	3,056.72
	1/25/2016	120.55	96.38	NA	NA	3,056.48
	7/22/2016	NM	96.28	NA	NA	3,056.58
	1/12/2017	NM	96.20	NA	NA	3,056.66
	4/7/2017	120.60	96.49	NA	NA	3,056.37
	7/13/2017	NM	96.25	NA	NA	3,056.61
	10/3/2017	NM	96.17	NA	NA	3,056.69
	1/12/2018	NM	96.29	NA	NA	3,056.57
	4/2/2018	NM	96.18	NA	NA	3,056.68
	07/02/18	NM	96.42	NA	NA	3,056.44
	10/1/2018	NM	96.28	NA	NA	3,056.58
	1/7/2019	NM	96.14	NA	NA	3,056.72
	4/4/2019	NM	96.20	NA	NA	3,056.66
NM-MW-3						
3,146.86	12/2/2015	NM	91.70	NA	NA	3,055.16
	1/25/2016	105.01	91.80	NA	NA	3,055.06
	7/22/2016	NM	91.81	NA	NA	3,055.05
	1/12/2017	NM	91.75	NA	NA	3,055.11
	4/7/2017	105.28	91.99	NA	NA	3,054.87
	7/13/2017	NM	91.92	NA	NA	3,054.94
	10/3/2017	NM	91.90	NA	NA	3,054.96
	1/12/2018	NM	91.93	NA	NA	3,054.93
	4/2/2018	NM	91.82	NA	NA	3,055.04
	07/02/18	NM	91.88	NA	NA	3,054.98
	10/1/2018	NM	91.78	NA	NA	3,055.08
	1/7/2019	NM	81.68	NA	NA	3,065.18
	4/4/2019	NM	91.70	NA	NA	3,055.16

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-4						
3,154.21	12/2/2015	NM	110.59	NA	NA	3,043.62
	1/25/2016	116.91	110.46	NA	NA	3,043.75
	7/22/2016	NM	110.57	NA	NA	3,043.64
	1/12/2017	NM	110.40	NA	NA	3,043.81
	4/7/2017	117.19	110.52	NA	NA	3,043.69
	7/13/2017	NM	110.50	NA	NA	3,043.71
	10/3/2017	NM	110.52	NA	NA	3,043.69
	1/12/2018	NM	110.48	NA	NA	3,043.73
	4/2/2018	NM	110.55	NA	NA	3,043.66
	07/02/18	NM	110.38	NA	NA	3,043.83
	10/1/2018	NM	110.44	NA	NA	3,043.77
	1/7/2019	NM	110.34	NA	NA	3,043.87
	4/4/2019	NM	110.36	NA	NA	3,043.85
NM-MW-5						
3,109.14	12/2/2015	NM	DRY	NA	NA	DRY
	1/25/2016	115.00	99.95	NA	NA	3,009.19
	7/22/2016	NM	99.78	NA	NA	3,009.36
	1/12/2017	NM	99.70	NA	NA	3,009.44
	4/7/2017	114.92	99.66	NA	NA	3,009.48
	7/13/2017	NM	99.80	NA	NA	3,009.34
	10/32017	NM	99.69	NA	NA	3,009.45
	1/12/2018	NM	99.80	NA	NA	3,009.34
	4/2/2018	NM	99.76	NA	NA	3,009.38
	07/02/18	NM	99.82	NA	NA	3,009.32
	10/1/2018	NM	99.89	NA	NA	3,009.25
	1/7/2019	NM	99.61	NA	NA	3,009.53
	4/4/2019	NM	99.74	NA	NA	3,009.40
NM-MW-6						
3,093.23	12/2/2015	NM	86.98	NA	NA	3,006.25
	1/25/2016	123.21	86.93	NA	NA	3,006.30
	7/22/2016	NM	87.10	NA	NA	3,006.13
	1/12/2017	NM	87.35	NA	NA	3,005.88
	4/7/2017	123.16	87.42	NA	NA	3,005.81
	7/13/2017	NM	87.47	NA	NA	3,005.76
	10/3/2017	NM	87.47	NA	NA	3,005.76
	1/12/2018	NM	87.57	NA	NA	3,005.66
	4/2/2018	NM	87.53	NA	NA	3,005.70
	07/02/18	NM	87.66	NA	NA	3,005.57
	10/1/2018	NM	87.70	NA	NA	3,005.53
	1/7/2019	NM	87.64	NA	NA	3,005.59
	4/4/2019	NM	87.81	NA	NA	3,005.42
NM-MW-7						
3,147.67	12/2/2015	NM	96.71	NA	NA	3,050.96
	1/25/2016	105.52	96.79	NA	NA	3,050.88
	7/22/2016	NM	96.91	NA	NA	3,050.76
	1/12/2017	NM	96.80	NA	NA	3,050.87
	4/7/2017	105.89	97.20	NA	NA	3,050.47
	7/13/2017	NM	97.12	NA	NA	3,050.55
	10/3/2017	NM	96.73	NA	NA	3,050.94
	1/12/2018	NM	96.40	NA	NA	3,051.27
	4/2/2018	NM	96.26	NA	NA	3,051.41
	07/02/18	NM	96.13	NA	NA	3,051.54
	10/1/2018	NM	96.07	NA	NA	3,051.60
	1/7/2019	NM	95.88	NA	NA	3,051.79
	4/4/2019	NM	95.91	NA	NA	3,051.76
NM-MW-8						
3,138.62	4/7/2017	108.33	98.63	NA	NA	3,039.99
	7/13/2017	NM	98.49	NA	NA	3,040.13
	10/3/2017	NM	98.42	NA	NA	3,040.20
	1/12/2018	NM	98.34	NA	NA	3,040.28
	4/2/2018	NM	98.35	NA	NA	3,040.27
	07/02/18	NM	98.22	NA	NA	3,040.40
	10/1/2018	NM	98.16	NA	NA	3,040.46
	1/7/2019	NM	98.03	NA	NA	3,040.59
	4/4/2019	NM	98.01	NA	NA	3,040.61
NM-MW-9						
3,118.18	4/7/2017	96.79	96.73	NA	NA	3,021.45
	7/13/2017	NM	95.58	NA	NA	3,022.60
	10/3/2017	NM	95.37	NA	NA	3,022.81
	1/12/2018	NM	94.94	NA	NA	3,023.24
	4/2/2018	NM	94.71	NA	NA	3,023.47
	07/02/18	NM	94.60	NA	NA	3,023.58
	10/1/2018	NM	94.60	NA	NA	3,023.58
	1/7/2019	NM	94.39	NA	NA	3,023.79
	4/5/2019	NM	97.37	NA	NA	3,020.81
NM-MW-10						
3,066.32	1/10/2017	NM	78.94	NA	NA	2,987.38
	4/7/2017	108.10	79.02	NA	NA	2,987.30
	7/13/2017	NM	79.09	NA	NA	2,987.23
	10/3/2017	NM	79.12	NA	NA	2,987.20
	1/12/2018	NM	79.15	NA	NA	2,987.17
	4/2/2018	NM	79.23	NA	NA	2,987.09
	07/02/18	NM	79.24	NA	NA	2,987.08
	10/1/2018	NM	79.32	NA	NA	2,987.00
	1/7/2019	NM	79.27	NA	NA	2,987.05
	4/4/2019	NM	79.37	NA	NA	2,986.95

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-11						
3,075.44	1/10/2017	NM	150.11	NA	NA	2,925.33
	4/7/2017	163.56	127.16	NA	NA	2,948.28
	7/13/2017	NM	107.66	NA	NA	2,967.78
	10/3/2017	NM	97.78	NA	NA	2,977.66
	1/12/2018	NM	90.89	NA	NA	2,984.55
	4/2/2018	NM	87.75	NA	NA	2,987.69
	07/02/18	NM	86.07	NA	NA	2,989.37
	10/1/2018	NM	84.80	NA	NA	2,990.64
	1/7/2019	NM	83.28	NA	NA	2,992.16
	4/4/2019	NM	82.82	NA	NA	2,992.62
NM-MW-12						
3,105.47	4/7/2017	98.54	96.70	NA	NA	3,008.77
	7/13/2017	NM	96.72	NA	NA	3,008.75
	10/3/2017	NM	96.69	NA	NA	3,008.78
	1/12/2018	NM	96.67	NA	NA	3,008.80
	4/2/2018	NM	96.71	NA	NA	3,008.76
	07/02/18	NM	96.68	NA	NA	3,008.79
	10/1/2018	NM	96.67	NA	NA	3,008.80
	1/7/2019	NM	96.51	NA	NA	3,008.96
	4/4/2019	NM	96.60	NA	NA	3,008.87
NM-MW-13						
3,051.17	4/7/2017	111.80	84.04	NA	NA	2,967.13
	7/13/2017	NM	84.05	NA	NA	2,967.12
	10/3/2017	NM	84.10	NA	NA	2,967.07
	1/12/2018	NM	84.12	NA	NA	2,967.05
	4/2/2018	NM	84.15	NA	NA	2,967.02
	07/02/18	NM	84.15	NA	NA	2,967.02
	10/1/2018	NM	84.24	NA	NA	2,966.93
	1/7/2019	NM	84.15	NA	NA	2,967.02
	4/4/2019	NM	84.27	NA	NA	2,966.90
Non-Remedial Wells						
Livermore						
NM	12/07/06	111.60	95.96	NA	NA	NA
	02/13/07	110.72	95.08	NA	NA	NA
	02/28/07	NM	95.08	NA	NA	NA
	07/30/07	110.72	95.71	NA	NA	NA
	07/09/08	110.72	94.89	NA	NA	NA
	01/28/09	110.81	94.81	NA	NA	NA
	08/28/09	111.11	95.08	NA	NA	NA
	02/19/10	NM	94.70	NA	NA	NA
	08/16/10	NM	94.67	NA	NA	NA
	02/11/11	NM	95.00	NA	NA	NA
	07/31/13	104.21	95.29	NA	NA	NA
	07/16/14	NM	95.85	NA	NA	NA
	01/25/16	104.23	95.20	NA	NA	NA
	07/21/16	NM	95.30	NA	NA	NA
	01/11/17	NM	95.10	NA	NA	NA
	07/13/17	NM	95.17	NA	NA	NA
	10/03/17	NM	95.27	NA	NA	NA
	01/12/18	NM	94.97	NA	NA	NA
	04/02/18	NM	94.97	NA	NA	NA
	07/02/18	NM	95.19	NA	NA	NA
	10/1/2018	NM	95.26	NA	NA	NA
	1/8/2019	NM	95.27	NA	NA	NA
	4/10/2019	NM	95.27	NA	NA	NA
Pure Water Tower						
3,154.43	06/18/11	137.00	87.30	NA	NA	3,067.13
Pure Water Well						
3,151.80	08/16/12	104.80	88.00	NA	NA	3,063.80
	08/30/13	100.50	88.35	NA	NA	3,063.45
	07/14/15	NM	88.35	NA	NA	3,063.45
RRR Ranch Windmill						
NM	08/28/09	117.05	95.05	NA	NA	NA
	07/22/16	NM	94.36	NA	NA	NA
	01/12/17	NM	94.28	NA	NA	NA
	07/13/17	99.61	94.37	NA	NA	NA
	10/03/17	NM	94.34	NA	NA	NA
	01/12/18	NM	94.24	NA	NA	NA
	04/02/18	NM	94.24	NA	NA	NA
	07/02/18	NM	94.14	NA	NA	NA
	10/1/2018	NM	94.08	NA	NA	NA
	1/7/2019	NM	93.95	NA	NA	NA
	4/4/2019	NM	93.95	NA	NA	NA
TRAC-4						
NM	NA	NM	NM	NA	NA	NA
TRAC-8						
NM	NA	NM	NM	NA	NA	NA
Wilson Ranch Well						
NM	NA	NM	NM	NA	NA	NA

Notes:
[1] Formula for Adjusted Groundwater Elevation: TOC - Depth to Water + 0.75(LNAPL thickness).
ft = feet
NAVD = North American Vertical Datum
TOC = top of casing
LNAPL = light non-aqueous phase liquid
NM = Not Measured
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix E
Groundwater Sample Analytical Laboratory Reports

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-001		611072-002		611072-003		611072-004		611072-005		611072-006	
	Field Id:	43-K-1-MW-W-190109		45-E-3-MW-W-190109		45-F-1-MW-W-190109		45-FF-MW-W-190109		45-E-2-MW-W-190109		45-E-1-MW-W-190109	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 10:20		01.09.2019 10:35		01.09.2019 10:55		01.09.2019 11:10		01.09.2019 11:25		01.09.2019 11:40	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00	
	Analyzed:	01.11.2019 16:45		01.11.2019 16:56		01.11.2019 17:06		01.11.2019 17:16		01.11.2019 17:58		01.11.2019 18:08	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		7130	50.0	3760	25.0	901	10.0	5080	25.0	1660	25.0	2680	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		9640	5.00	5240	5.00	1840	5.00	6690	5.00	3040	5.00	3650	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-007		611072-008		611072-009		611072-010		611072-011		611072-012	
	Field Id:	44-I-1-MW-W-190109		44-J-1-MW-W-190109		44-J-5-MW-W-190109		44-J-3-MW-W-190109		44-J-4-MW-W-190109		44-J-2-MW-W-190109	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 12:10		01.09.2019 12:20		01.09.2019 12:30		01.09.2019 12:40		01.09.2019 12:50		01.09.2019 13:05	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.11.2019 13:00		01.14.2019 12:30	
	Analyzed:	01.11.2019 18:39		01.11.2019 18:49		01.11.2019 19:00		01.11.2019 19:10		01.11.2019 19:20		01.14.2019 15:52	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		3320	25.0	4850	25.0	3970	25.0	4300	25.0	4470	25.0	4930	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4580	5.00	6190	5.00	5690	5.00	6330	5.00	6130	5.00	7020	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	611072-013		611072-014		611072-015		611072-016		611072-017		611072-018	
	Field Id:	MW-8-W-190109		DHU-FWS-W-190109		58-B-2-MW-W-190109		58-B-1-MW-W-190109		MW-9-W-190109		58-B-3-MW-W-190109	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 13:45		01.09.2019 13:55		01.09.2019 14:05		01.09.2019 14:15		01.09.2019 14:35		01.09.2019 14:50	
Inorganic Anions by EPA 300/300.1	*Extracted:*	01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30	
	Analyzed:	01.14.2019 16:02		01.14.2019 16:12		01.14.2019 16:23		01.15.2019 15:34		01.15.2019 15:44		01.15.2019 15:55	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		852	10.0	611	5.00	4190	25.0	5240	50.0	2620	25.0	900	10.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	611072-013		611072-014		611072-015		611072-016		611072-017		611072-018	
	Field Id:	MW-8-W-190109		DHU-FWS-W-190109		58-B-2-MW-W-190109		58-B-1-MW-W-190109		MW-9-W-190109		58-B-3-MW-W-190109	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 13:45		01.09.2019 13:55		01.09.2019 14:05		01.09.2019 14:15		01.09.2019 14:35		01.09.2019 14:50	
TDS by SM2540C	*Extracted:*												
	Analyzed:	01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10		01.14.2019 15:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2160	5.00	2900	5.00	5470	5.00	8120	5.00	807	5.00	2070	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-019		611072-020		611072-021		611072-022		611072-023		611072-024	
	Field Id:	MW-29-W-190109		MW-28-W-190109		NM-MW-10-W-190109		NM-MW-12-W-190109		Wilson Well-W-190109		Wilson Well-WD-190109	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 15:00		01.09.2019 15:10		01.09.2019 15:35		01.09.2019 15:45		01.09.2019 15:55		01.09.2019 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30	
	Analyzed:	01.15.2019 16:05		01.15.2019 16:15		01.14.2019 17:15		01.14.2019 17:25		01.15.2019 16:36		01.15.2019 16:46	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		359	5.00	1510	25.0	290	5.00	596	5.00	1070	25.0	1020	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 15:10		01.14.2019 15:10		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		7270	5.00	3050	5.00	1530	5.00	1300	5.00	2420	5.00	2420	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	611072-025		611072-026		611072-027		611072-028		611072-029		611072-030	
	Field Id:	Smith Well-W-190109		NM-MW-8-W-190110		NM-MW-4-W-190110		RRR Ranch-W-190110		NM-MW-7-W-190110		NM-MW-3-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 16:10		01.10.2019 10:10		01.10.2019 10:25		01.10.2019 10:35		01.10.2019 10:45		01.10.2019 10:55	
Inorganic Anions by EPA 300/300.1	*Extracted:*	01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 12:30		01.14.2019 13:15	
	Analyzed:	01.15.2019 16:57		01.15.2019 17:07		01.15.2019 17:38		01.15.2019 17:48		01.15.2019 17:59		01.14.2019 21:33	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1020	25.0	4630	50.0	35.7	2.50	1290	25.0	2040	25.0	447	10.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-025		611072-026		611072-027		611072-028		611072-029		611072-030	
	Field Id:	Smith Well-W-190109		NM-MW-8-W-190110		NM-MW-4-W-190110		RRR Ranch-W-190110		NM-MW-7-W-190110		NM-MW-3-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.09.2019 16:10		01.10.2019 10:10		01.10.2019 10:25		01.10.2019 10:35		01.10.2019 10:45		01.10.2019 10:55	
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2230	5.00	8040	5.00	1240	5.00	2950	5.00	5190	5.00	1250	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	611072-031		611072-032		611072-033		611072-034		611072-035		611072-036	
	Field Id:	NM-MW-2-W-190110		NM-MW-1-W-190110		NM-MW-5-W-190110		NM-MW-6-W-190110		NM-MW-11-W-190110		NM-MW-13-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 11:05		01.10.2019 11:10		01.10.2019 11:20		01.10.2019 11:30		01.10.2019 11:40		01.10.2019 12:00	
Inorganic Anions by EPA 300/300.1	*Extracted:*	01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15	
	Analyzed:	01.14.2019 21:44		01.14.2019 21:54		01.14.2019 22:04		01.14.2019 23:27		01.14.2019 22:35		01.14.2019 22:46	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		616	5.00	256	5.00	142	5.00	113	2.50	154	10.0	165	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-031		611072-032		611072-033		611072-034		611072-035		611072-036	
	Field Id:	NM-MW-2-W-190110		NM-MW-1-W-190110		NM-MW-5-W-190110		NM-MW-6-W-190110		NM-MW-11-W-190110		NM-MW-13-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 11:05		01.10.2019 11:10		01.10.2019 11:20		01.10.2019 11:30		01.10.2019 11:40		01.10.2019 12:00	
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1210	5.00	1370	5.00	1280	5.00	813	5.00	1840	5.00	1070	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-037		611072-038		611072-039		611072-040		611072-041		611072-042	
	Field Id:	NM-MW-9-W-190110		MW-27-W-190110		MW-20-W-190110		MW-10-W-190110		MW-10-WD-190110		MW-26-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 12:25		01.10.2019 12:35		01.10.2019 12:45		01.10.2019 12:55		01.10.2019 00:00		01.10.2019 13:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15	
	Analyzed:	01.14.2019 22:56		01.14.2019 23:06		01.14.2019 23:17		01.15.2019 00:08		01.15.2019 00:39		01.15.2019 00:50	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		195	5.00	2420	25.0	1070	10.0	5130	25.0	5560	25.0	1190	25.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-037		611072-038		611072-039		611072-040		611072-041		611072-042	
	Field Id:	NM-MW-9-W-190110		MW-27-W-190110		MW-20-W-190110		MW-10-W-190110		MW-10-WD-190110		MW-26-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 12:25		01.10.2019 12:35		01.10.2019 12:45		01.10.2019 12:55		01.10.2019 00:00		01.10.2019 13:10	
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.14.2019 16:15		01.16.2019 08:00		01.16.2019 08:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4160	5.00	4110	5.00	2180	5.00	7050	5.00	7130	5.00	2740	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-043		611072-044		611072-045		611072-046		611072-047		611072-048	
	Field Id:	MW-24-W-190110		MW-12-W-190110		MW-31-W-190110		MW-18-W-190110		MW-19-W-190110		MW-25-W-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 13:15		01.10.2019 13:20		01.10.2019 13:30		01.10.2019 13:45		01.10.2019 13:50		01.10.2019 14:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.14.2019 13:15		01.16.2019 12:00	
	Analyzed:	01.15.2019 01:00		01.15.2019 01:10		01.15.2019 01:21		01.15.2019 01:31		01.15.2019 01:41		01.16.2019 12:45	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		3320	25.0	13900	100	11100	50.0	17000	100	6570	50.0	23500	100
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1020	5.00	14000	5.00	10300	5.00	19000	5.00	9300	5.00	29800	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-049		611072-050		611072-051		611072-052		611072-053		611072-054	
	Field Id:	MW-11-W-190110		MW-6-W-190110		MW-5-W-190110		MW-3-W-190110		Tract-4-W-190110		Tract-4-WD-190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 14:10		01.10.2019 14:20		01.10.2019 14:25		01.10.2019 14:35		01.10.2019 14:45		01.10.2019 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00	
	Analyzed:	01.16.2019 12:56		01.16.2019 13:06		01.16.2019 13:16		01.16.2019 13:48		01.16.2019 13:58		01.16.2019 14:08	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		8240	50.0	372	5.00	244	5.00	194	5.00	315	5.00	314	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		9730	5.00	1510	5.00	1050	5.00	619	5.00	1080	5.00	1080	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	611072-055		611072-056		611072-057		611072-058		611072-059		611072-060	
	Field Id:	MW-14-W-190110		MW-4-W-190110		MW-13-W-190110		MW-30-W-190110		Livermore-W-190110		MW-23-W190110	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.10.2019 14:50		01.10.2019 15:00		01.10.2019 15:10		01.10.2019 15:15		01.10.2019 15:30		01.10.2019 15:35	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00	
	Analyzed:	01.16.2019 14:19		01.16.2019 14:29		01.16.2019 15:10		01.16.2019 15:21		01.16.2019 15:52		01.16.2019 16:02	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1630	25.0	258	5.00	1880	25.0	2460	25.0	2530	25.0	7910	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00		01.16.2019 08:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2890	5.00	426	5.00	3810	5.00	3860	5.00	4330	5.00	9780	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 611072

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.11.2019 10:16
Report Date: 03.29.2019 17:26
Project Manager: Debbie Simmons

Analysis Requested														
	Lab Id:	611072-061		611072-062		611072-063		611072-064		611072-065				
	Field Id:	MW-22-W-190110		MW-17-W-190110		MW-21-W-190110		MW-16-W-190110		MW-15-W-190110				
	Depth:													
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER				
	Sampled:	01.10.2019 15:40		01.10.2019 15:50		01.10.2019 15:55		01.10.2019 16:05		01.10.2019 16:15				
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00		01.16.2019 12:00				
	Analyzed:	01.16.2019 16:12		01.16.2019 16:23		01.16.2019 16:33		01.16.2019 16:43		01.16.2019 16:54				
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Chloride		12000	50.0	10100	50.0	7530	50.0	468	5.00	995	10.0			
TDS by SM2540C	***Extracted:***													
	Analyzed:	01.16.2019 08:55		01.16.2019 08:55		01.16.2019 08:55		01.16.2019 08:55		01.16.2019 08:55				
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Total Dissolved Solids		10900	5.00	11100	5.00	9420	5.00	1260	5.00	2290	5.00			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 611072

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

03.29.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

03.29.2019

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **611072**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 611072. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 611072 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
43-K-1-MW-W-190109	W	01.09.2019 10:20		611072-001
45-E-3-MW-W-190109	W	01.09.2019 10:35		611072-002
45-F-1-MW-W-190109	W	01.09.2019 10:55		611072-003
45-FF-MW-W-190109	W	01.09.2019 11:10		611072-004
45-E-2-MW-W-190109	W	01.09.2019 11:25		611072-005
45-E-1-MW-W-190109	W	01.09.2019 11:40		611072-006
44-I-1-MW-W-190109	W	01.09.2019 12:10		611072-007
44-J-1-MW-W-190109	W	01.09.2019 12:20		611072-008
44-J-5-MW-W-190109	W	01.09.2019 12:30		611072-009
44-J-3-MW-W-190109	W	01.09.2019 12:40		611072-010
44-J-4-MW-W-190109	W	01.09.2019 12:50		611072-011
44-J-2-MW-W-190109	W	01.09.2019 13:05		611072-012
MW-8-W-190109	W	01.09.2019 13:45		611072-013
DHU-FWS-W-190109	W	01.09.2019 13:55		611072-014
58-B-2-MW-W-190109	W	01.09.2019 14:05		611072-015
58-B-1-MW-W-190109	W	01.09.2019 14:15		611072-016
MW-9-W-190109	W	01.09.2019 14:35		611072-017
58-B-3-MW-W-190109	W	01.09.2019 14:50		611072-018
MW-29-W-190109	W	01.09.2019 15:00		611072-019
MW-28-W-190109	W	01.09.2019 15:10		611072-020
NM-MW-10-W-190109	W	01.09.2019 15:35		611072-021
NM-MW-12-W-190109	W	01.09.2019 15:45		611072-022
Wilson Well-W-190109	W	01.09.2019 15:55		611072-023
Wilson Well-WD-190109	W	01.09.2019 00:00		611072-024
Smith Well-W-190109	W	01.09.2019 16:10		611072-025
NM-MW-8-W-190110	W	01.10.2019 10:10		611072-026
NM-MW-4-W-190110	W	01.10.2019 10:25		611072-027
RRR Ranch-W-190110	W	01.10.2019 10:35		611072-028
NM-MW-7-W-190110	W	01.10.2019 10:45		611072-029
NM-MW-3-W-190110	W	01.10.2019 10:55		611072-030
NM-MW-2-W-190110	W	01.10.2019 11:05		611072-031
NM-MW-1-W-190110	W	01.10.2019 11:10		611072-032
NM-MW-5-W-190110	W	01.10.2019 11:20		611072-033
NM-MW-6-W-190110	W	01.10.2019 11:30		611072-034
NM-MW-11-W-190110	W	01.10.2019 11:40		611072-035
NM-MW-13-W-190110	W	01.10.2019 12:00		611072-036
NM-MW-9-W-190110	W	01.10.2019 12:25		611072-037
MW-27-W-190110	W	01.10.2019 12:35		611072-038
MW-20-W-190110	W	01.10.2019 12:45		611072-039
MW-10-W-190110	W	01.10.2019 12:55		611072-040
MW-10-WD-190110	W	01.10.2019 00:00		611072-041
MW-26-W-190110	W	01.10.2019 13:10		611072-042
MW-24-W-190110	W	01.10.2019 13:15		611072-043

Sample Cross Reference 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

MW-12-W-190110	W	01.10.2019 13:20	611072-044
MW-31-W-190110	W	01.10.2019 13:30	611072-045
MW-18-W-190110	W	01.10.2019 13:45	611072-046
MW-19-W-190110	W	01.10.2019 13:50	611072-047
MW-25-W-190110	W	01.10.2019 14:00	611072-048
MW-11-W-190110	W	01.10.2019 14:10	611072-049
MW-6-W-190110	W	01.10.2019 14:20	611072-050
MW-5-W-190110	W	01.10.2019 14:25	611072-051
MW-3-W-190110	W	01.10.2019 14:35	611072-052
Tract-4-W-190110	W	01.10.2019 14:45	611072-053
Tract-4-WD-190110	W	01.10.2019 00:00	611072-054
MW-14-W-190110	W	01.10.2019 14:50	611072-055
MW-4-W-190110	W	01.10.2019 15:00	611072-056
MW-13-W-190110	W	01.10.2019 15:10	611072-057
MW-30-W-190110	W	01.10.2019 15:15	611072-058
Livermore-W-190110	W	01.10.2019 15:30	611072-059
MW-23-W190110	W	01.10.2019 15:35	611072-060
MW-22-W-190110	W	01.10.2019 15:40	611072-061
MW-17-W-190110	W	01.10.2019 15:50	611072-062
MW-21-W-190110	W	01.10.2019 15:55	611072-063
MW-16-W-190110	W	01.10.2019 16:05	611072-064
MW-15-W-190110	W	01.10.2019 16:15	611072-065

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID:	*055270*	Report Date:	*03.29.2019*
Work Order Number(s):	*611072*	Date Received:	*01.11.2019*

Sample receipt non conformances and comments:

Report revised 3/29/19 after client request to double check the Choride results for 611072-017, -019, -027, -037, -043 and -056. Upon review of the sample containers at the Midland lab it was noted that 611072-017 and 611072-37 were inadvertantly switched at login., 611072-019 and 611072-043 were inadvertantly switched at login and 611072-27 and 56 were inadvertantly switched at login. Data has been corrected in our system and report revised.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **43-K-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-001 Date Collected: 01.09.2019 10:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7130**	50.0	8.58	mg/L	01.11.2019 16:45		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9640**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-3-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-002 Date Collected: 01.09.2019 10:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3760**	25.0	4.29	mg/L	01.11.2019 16:56		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5240**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-F-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-003 Date Collected: 01.09.2019 10:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**901**	10.0	1.72	mg/L	01.11.2019 17:06		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1840**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-FF-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-004 Date Collected: 01.09.2019 11:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5080**	25.0	4.29	mg/L	01.11.2019 17:16		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6690**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-2-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-005 Date Collected: 01.09.2019 11:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1660**	25.0	4.29	mg/L	01.11.2019 17:58		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3040**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-006 Date Collected: 01.09.2019 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2680**	25.0	4.29	mg/L	01.11.2019 18:08		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3650**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-I-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-007 Date Collected: 01.09.2019 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3320**	25.0	4.29	mg/L	01.11.2019 18:39		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4580**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-008 Date Collected: 01.09.2019 12:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4850**	25.0	4.29	mg/L	01.11.2019 18:49		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6190**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-5-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-009 Date Collected: 01.09.2019 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3970**	25.0	4.29	mg/L	01.11.2019 19:00		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5690**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-3-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-010 Date Collected: 01.09.2019 12:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4300**	25.0	4.29	mg/L	01.11.2019 19:10		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6330**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-4-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-011 Date Collected: 01.09.2019 12:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.11.2019 13:00

Seq Number: 3075625

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4470**	25.0	4.29	mg/L	01.11.2019 19:20		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6130**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-2-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-012 Date Collected: 01.09.2019 13:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4930**	25.0	4.29	mg/L	01.14.2019 15:52		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7020**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-013 Date Collected: 01.09.2019 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**852**	10.0	1.72	mg/L	01.14.2019 16:02		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2160**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-014 Date Collected: 01.09.2019 13:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**611**	5.00	0.858	mg/L	01.14.2019 16:12		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2900**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-2-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-015 Date Collected: 01.09.2019 14:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4190**	25.0	4.29	mg/L	01.14.2019 16:23		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5470**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-1-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-016 Date Collected: 01.09.2019 14:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5240**	50.0	8.58	mg/L	01.15.2019 15:34		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8120**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-017 Date Collected: 01.09.2019 14:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2620**	25.0	4.29	mg/L	01.15.2019 15:44		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**807**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-3-MW-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-018 Date Collected: 01.09.2019 14:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**900**	10.0	1.72	mg/L	01.15.2019 15:55		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2070**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-019 Date Collected: 01.09.2019 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**359**	5.00	0.858	mg/L	01.15.2019 16:05		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7270**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-020 Date Collected: 01.09.2019 15:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1510**	25.0	4.29	mg/L	01.15.2019 16:15		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075717

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3050**	5.00	5.00	mg/L	01.14.2019 15:10		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-021 Date Collected: 01.09.2019 15:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**290**	5.00	0.858	mg/L	01.14.2019 17:15		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1530**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-022 Date Collected: 01.09.2019 15:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**596**	5.00	0.858	mg/L	01.14.2019 17:25		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1300**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Well-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-023 Date Collected: 01.09.2019 15:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1070**	25.0	4.29	mg/L	01.15.2019 16:36		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2420**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Well-WD-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-024 Date Collected: 01.09.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1020**	25.0	4.29	mg/L	01.15.2019 16:46		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2420**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith Well-W-190109** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-025 Date Collected: 01.09.2019 16:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1020**	25.0	4.29	mg/L	01.15.2019 16:57		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2230**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-026 Date Collected: 01.10.2019 10:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4630**	50.0	8.58	mg/L	01.15.2019 17:07		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8040**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-027 Date Collected: 01.10.2019 10:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.7**	2.50	0.429	mg/L	01.15.2019 17:38		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-028 Date Collected: 01.10.2019 10:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1290**	25.0	4.29	mg/L	01.15.2019 17:48		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2950**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-029 Date Collected: 01.10.2019 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 12:30

Seq Number: 3075808

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2040**	25.0	4.29	mg/L	01.15.2019 17:59		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5190**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-030 Date Collected: 01.10.2019 10:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**447**	10.0	1.72	mg/L	01.14.2019 21:33		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1250**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-031 Date Collected: 01.10.2019 11:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**616**	5.00	0.858	mg/L	01.14.2019 21:44		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1210**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-032 Date Collected: 01.10.2019 11:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**256**	5.00	0.858	mg/L	01.14.2019 21:54		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1370**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-033 Date Collected: 01.10.2019 11:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**142**	5.00	0.858	mg/L	01.14.2019 22:04		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1280**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-034 Date Collected: 01.10.2019 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**113**	2.50	0.429	mg/L	01.14.2019 23:27		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**813**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-035 Date Collected: 01.10.2019 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**154**	10.0	1.72	mg/L	01.14.2019 22:35		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1840**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-036 Date Collected: 01.10.2019 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**165**	5.00	0.858	mg/L	01.14.2019 22:46		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-037 Date Collected: 01.10.2019 12:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**195**	5.00	0.858	mg/L	01.14.2019 22:56		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-038 Date Collected: 01.10.2019 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2420**	25.0	4.29	mg/L	01.14.2019 23:06		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4110**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-039 Date Collected: 01.10.2019 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1070**	10.0	1.72	mg/L	01.14.2019 23:17		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2180**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-040 Date Collected: 01.10.2019 12:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5130**	25.0	4.29	mg/L	01.15.2019 00:08		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075718

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7050**	5.00	5.00	mg/L	01.14.2019 16:15		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-WD-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-041 Date Collected: 01.10.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5560**	25.0	4.29	mg/L	01.15.2019 00:39		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7130**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-042 Date Collected: 01.10.2019 13:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1190**	25.0	4.29	mg/L	01.15.2019 00:50		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2740**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-043 Date Collected: 01.10.2019 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3320**	25.0	4.29	mg/L	01.15.2019 01:00		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1020**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-044 Date Collected: 01.10.2019 13:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13900**	100	17.2	mg/L	01.15.2019 01:10		200

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**14000**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-045 Date Collected: 01.10.2019 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11100**	50.0	8.58	mg/L	01.15.2019 01:21		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10300**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-046 Date Collected: 01.10.2019 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**17000**	100	17.2	mg/L	01.15.2019 01:31		200

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**19000**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-047 Date Collected: 01.10.2019 13:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.14.2019 13:15

Seq Number: 3075811

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6570**	50.0	8.58	mg/L	01.15.2019 01:41		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9300**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-048 Date Collected: 01.10.2019 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23500**	100	17.2	mg/L	01.16.2019 12:45		200

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**29800**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-049 Date Collected: 01.10.2019 14:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8240**	50.0	8.58	mg/L	01.16.2019 12:56		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9730**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-050 Date Collected: 01.10.2019 14:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**372**	5.00	0.858	mg/L	01.16.2019 13:06		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1510**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-051 Date Collected: 01.10.2019 14:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**244**	5.00	0.858	mg/L	01.16.2019 13:16		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1050**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-052 Date Collected: 01.10.2019 14:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**194**	5.00	0.858	mg/L	01.16.2019 13:48		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**619**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Tract-4-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-053 Date Collected: 01.10.2019 14:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**315**	5.00	0.858	mg/L	01.16.2019 13:58		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1080**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Tract-4-WD-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-054 Date Collected: 01.10.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**314**	5.00	0.858	mg/L	01.16.2019 14:08		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1080**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-055 Date Collected: 01.10.2019 14:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1630**	25.0	4.29	mg/L	01.16.2019 14:19		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2890**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-056 Date Collected: 01.10.2019 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**258**	5.00	0.858	mg/L	01.16.2019 14:29		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**426**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-057 Date Collected: 01.10.2019 15:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1880**	25.0	4.29	mg/L	01.16.2019 15:10		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3810**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-058 Date Collected: 01.10.2019 15:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2460**	25.0	4.29	mg/L	01.16.2019 15:21		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3860**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-059 Date Collected: 01.10.2019 15:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2530**	25.0	4.29	mg/L	01.16.2019 15:52		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4330**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-060 Date Collected: 01.10.2019 15:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7910**	50.0	8.58	mg/L	01.16.2019 16:02		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3075997

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9780**	5.00	5.00	mg/L	01.16.2019 08:00		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-061 Date Collected: 01.10.2019 15:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12000**	50.0	8.58	mg/L	01.16.2019 16:12		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3076042

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10900**	5.00	5.00	mg/L	01.16.2019 08:55		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-062 Date Collected: 01.10.2019 15:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10100**	50.0	8.58	mg/L	01.16.2019 16:23		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3076042

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11100**	5.00	5.00	mg/L	01.16.2019 08:55		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-063 Date Collected: 01.10.2019 15:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7530**	50.0	8.58	mg/L	01.16.2019 16:33		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3076042

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9420**	5.00	5.00	mg/L	01.16.2019 08:55		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-064 Date Collected: 01.10.2019 16:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**468**	5.00	0.858	mg/L	01.16.2019 16:43		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3076042

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1260**	5.00	5.00	mg/L	01.16.2019 08:55		1

Certificate of Analytical Results 611072

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-190110** Matrix: Ground Water Date Received:01.11.2019 10:16

Lab Sample Id: 611072-065 Date Collected: 01.10.2019 16:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.16.2019 12:00

Seq Number: 3076064

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**995**	10.0	1.72	mg/L	01.16.2019 16:54		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3076042

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2290**	5.00	5.00	mg/L	01.16.2019 08:55		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 611072

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075625 Matrix: Water Date Prep: 01.11.2019
MB Sample Id: 7669641-1-BLK LCS Sample Id: 7669641-1-BKS LCSD Sample Id: 7669641-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	22.5	90	22.6	90	90-110	0	20	mg/L	01.11.2019 14:41	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075808 Matrix: Water Date Prep: 01.14.2019
MB Sample Id: 7669719-1-BLK LCS Sample Id: 7669719-1-BKS LCSD Sample Id: 7669719-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.5	102	24.5	98	90-110	4	20	mg/L	01.14.2019 15:00	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075811 Matrix: Water Date Prep: 01.14.2019
MB Sample Id: 7669720-1-BLK LCS Sample Id: 7669720-1-BKS LCSD Sample Id: 7669720-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	23.2	93	22.8	91	90-110	2	20	mg/L	01.14.2019 20:41	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3076064 Matrix: Water Date Prep: 01.16.2019
MB Sample Id: 7669858-1-BLK LCS Sample Id: 7669858-1-BKS LCSD Sample Id: 7669858-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	23.5	94	23.6	94	90-110	0	20	mg/L	01.16.2019 11:54	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075625 Matrix: Drinking Water Date Prep: 01.11.2019
Parent Sample Id: 611021-001 MS Sample Id: 611021-001 S MSD Sample Id: 611021-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.95	25.0	26.0	84	26.0	84	90-110	0	20	mg/L	01.11.2019 15:12	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075625 Matrix: Drinking Water Date Prep: 01.11.2019
Parent Sample Id: 611023-001 MS Sample Id: 611023-001 S MSD Sample Id: 611023-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.23	25.0	27.4	85	27.5	85	90-110	0	20	mg/L	01.11.2019 17:37	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 611072

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075808 Matrix: Water Date Prep: 01.14.2019
Parent Sample Id: 611157-001 MS Sample Id: 611157-001 S MSD Sample Id: 611157-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	147	125	253	85	258	89	90-110	2	20	mg/L	01.14.2019 15:31	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075808 Matrix: Water Date Prep: 01.14.2019
Parent Sample Id: 611157-002 MS Sample Id: 611157-002 S MSD Sample Id: 611157-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	106	125	233	102	237	105	90-110	2	20	mg/L	01.14.2019 16:54	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075811 Matrix: Ground Water Date Prep: 01.14.2019
Parent Sample Id: 611072-034 MS Sample Id: 611072-034 S MSD Sample Id: 611072-034 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	113	125	231	94	231	94	90-110	0	20	mg/L	01.14.2019 23:37	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3075811 Matrix: Water Date Prep: 01.14.2019
Parent Sample Id: 611157-003 MS Sample Id: 611157-003 S MSD Sample Id: 611157-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	147	125	262	92	261	91	90-110	0	20	mg/L	01.14.2019 21:13	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3076064 Matrix: Drinking Water Date Prep: 01.16.2019
Parent Sample Id: 611411-001 MS Sample Id: 611411-001 S MSD Sample Id: 611411-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1.78	25.0	25.5	95	25.6	95	90-110	0	20	mg/L	01.16.2019 12:25	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3076064 Matrix: Drinking Water Date Prep: 01.16.2019
Parent Sample Id: 611412-001 MS Sample Id: 611412-001 S MSD Sample Id: 611412-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	52.7	25.0	76.5	95	76.9	97	90-110	1	20	mg/L	01.16.2019 14:50	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 611072

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3075717 Matrix: Water
MB Sample Id: 3075717-1-BLK LCS Sample Id: 3075717-1-BKS LCSD Sample Id: 3075717-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	994	99	981	98	80-120	1	10	mg/L	01.14.2019 15:10	

Analytical Method: TDS by SM2540C
Seq Number: 3075718 Matrix: Water
MB Sample Id: 3075718-1-BLK LCS Sample Id: 3075718-1-BKS LCSD Sample Id: 3075718-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	966	97	964	96	80-120	0	10	mg/L	01.14.2019 16:15	

Analytical Method: TDS by SM2540C
Seq Number: 3075997 Matrix: Water
MB Sample Id: 3075997-1-BLK LCS Sample Id: 3075997-1-BKS LCSD Sample Id: 3075997-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	988	99	975	98	80-120	1	10	mg/L	01.16.2019 08:00	

Analytical Method: TDS by SM2540C
Seq Number: 3076042 Matrix: Water
MB Sample Id: 3076042-1-BLK LCS Sample Id: 3076042-1-BKS LCSD Sample Id: 3076042-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	984	98	963	96	80-120	2	10	mg/L	01.16.2019 08:55	

Analytical Method: TDS by SM2540C
Seq Number: 3075717 Matrix: Ground Water
Parent Sample Id: 611072-001 MD Sample Id: 611072-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9640	9750	1	10	mg/L	01.14.2019 15:10	

Analytical Method: TDS by SM2540C
Seq Number: 3075717 Matrix: Ground Water
Parent Sample Id: 611072-020 MD Sample Id: 611072-020 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	3050	3120	2	10	mg/L	01.14.2019 15:10	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 611072

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3075718 Matrix: Ground Water
Parent Sample Id: 611072-021 MD Sample Id: 611072-021 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1530	1540	1	10	mg/L	01.14.2019 16:15	

Analytical Method: TDS by SM2540C
Seq Number: 3075718 Matrix: Ground Water
Parent Sample Id: 611072-040 MD Sample Id: 611072-040 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	7050	6950	1	10	mg/L	01.14.2019 16:15	

Analytical Method: TDS by SM2540C
Seq Number: 3075997 Matrix: Ground Water
Parent Sample Id: 611072-041 MD Sample Id: 611072-041 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	7130	7260	2	10	mg/L	01.16.2019 08:00	

Analytical Method: TDS by SM2540C
Seq Number: 3075997 Matrix: Ground Water
Parent Sample Id: 611072-060 MD Sample Id: 611072-060 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9780	9910	1	10	mg/L	01.16.2019 08:00	

Analytical Method: TDS by SM2540C
Seq Number: 3076042 Matrix: Ground Water
Parent Sample Id: 611072-061 MD Sample Id: 611072-061 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	10900	10700	2	10	mg/L	01.16.2019 08:55	

Analytical Method: TDS by SM2540C
Seq Number: 3076042 Matrix: Water
Parent Sample Id: 611330-008 MD Sample Id: 611330-008 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	<5.00	0	10	mg/L	01.16.2019 08:55	U

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 150 of 1515

Chain of Custody

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 611072

Page 1 of 7

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:	Joe Micheles Joshua Shenkey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 0.2	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
43-K-1-MW-W-190109	GW	1-9	1020	—	1	X	X
45-E-3-MW-W-190109		1-9	1035	—	1		
45-F-1-MW-W-190109			1055	—			
45-FF-MW-W-190109			1110	—			
45-E-2MW-W-190109			1125	—			
45-E-1-MW-W-190109			1140	—			
44-I-1-MW-W-190109			1210	—			
44-J-1-MW-W-190109			1220	—			
44-J-5-MW-W-190109			1230	—			
44-J-3-MW-W-190109	GW	1-9	1240	—	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Shenkey	Rec'd	01/11/19 1616	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 91 of 98

Page 151 of 1515

Chain of Custody

Work Order No: 611092

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 2 of 7

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 / 0.2	Thermometer ID		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
44-J-4-MW-W-190109	GW	1-9	1250	—	1	X	X
44-J-2-MW-W-190109			1305	—			
MW-8-W-190109			1345	—			
DH4-FWS-W-190109			1355	—			
58-B-2-MW-W-190109			1405	—			
58-B-1-MW-W-190109			1415	—			
MW-9-W-190109			1435	—			
58-B-3-MW-W-190109			1450	—			
MW-29-W-190109			1500	—			
MW-28-W-190109	GW	1-9	1510	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		01/11/19 1046	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 92 of 98

Page 152 of 1515

Chain of Custody

Work Order No: 611072

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 3 of 7

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine ☑	
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 | 0.2	Thermometer ID	IR	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
NM-MW-10-W-190109	GW	1-9	1535	-	1	X	X	
NM-MW-12-W-190109			1545	-				
Wilson Well-W-190109			1555	-				
Wilson Well-WD-190109			-	-				
~~Dup-WI~~								
Smith Well-W-190109		1-9	1610	-				
NM-MW-8-W-190110		1-10	1010	-				
NM-MW-4-W-190110		1-10	1025	-				
RRR-Ranch-W-190110		1-10	1035	-				
NM-MW-7-W-190110	GW	1-10	1045	-	1	X		

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 93 of 98

Page 153 of 1515

Chain of Custody

Work Order No: 611072

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	✓
Project Number:	055270-2019-001	Routine	☐
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.2 | 0.2	Thermometer ID:	10
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-3-W-190110	GW	1-10	1055	—	1	X	X
NM-MW-2-W-190110			1105	—			
NM-MW-1-W-190110			1110	—			
NM-MW-5-W-190110			1120	—			
NM-MW-6-W 190110			1130	—			
NM-MW-11-W-190110			1140	—			
NM-MW-13-W-190110			1200	—			
NM-MW-9-W-190110			1225	—			
MW-27-W-190110			1235	—			
MW-20-W-190110	GW	1-10	1245	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Josiane Sharkey		01/11/19 1016	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 94 of 98

Page 154 of 1515

XENCO LABORATORIES

Chain of Custody

Work Order No: 611072

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 5 of 7

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 | 0.2	Thermometer ID:		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-10-W-190110	G-W	1-10	1255	—	1	X	X
MW-10-WD-190110			—	—			
MW-26-W-190110			1310	—			
MW-24-W-190110			1315	—			
MW-12-W-190110			1320	—			
MW-31-W-190110			1330	—			
MW-18-W-190110			1345	—			
MW-19-W-190110			1350	—			
MW-25-W-190110			1400	—			
MW-11-W-190110	G-W	1-10	1410	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Shoemaker	Ball	01/11/19 1016	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 95 of 98

Page 155 of 1515

Chain of Custody

Work Order No: 611072

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3 0.2	Thermometer ID	8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-6-W-190110	GW	1-10	1420	-	1	X	X
MW-5-W-190110			1425	-			
MW-3-W-190110			1435	-			
Tract-4-W-190110			1445	-			
Tract-4-WD-190110			—	-			
MW-14-W-190110			1450	-			
MW-4-W-190110			1500	-			
MW-13-W-190110			1510	-			
MW-30-W-190110			1515	-			
Livermore-W-190110	GW	1-10	1530	-	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		01/11/19 1016	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 96 of 98

Page 156 of 1515

Chain of Custody

Work Order No: 611072

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.3 | 0.2	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-23-W-190110	GW	1-10	1535	—	1	X	X
MW-22-W-190110			1540				
MW-17-W-190110			1550				
MW-21-W-190110			1555				
MW-16-W-190110			1605				
MW-15-W-190110			1615				

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Shanbary		01/11/19 1016	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.001
Page 97 of 98
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01/11/2019 10:16:00 AM

Work Order #: 611072

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Katie Lowe Date: 01/11/2019

Checklist reviewed by: Debbie Simmons Date: 01/12/2019

Certificate of Analysis Summary 620285

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.05.2019 15:28
Report Date: 04.23.2019 15:52
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620285-001		620285-002		620285-003		620285-004		620285-005		620285-006	
	Field Id:	NM-MW-7-W-190404		RRR Ranch-W-190404		NM-MW-4-W-190404		NM-MW-8-W-190404		NM-MW-3-W-190404		NM-MW-2-W-190404	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.04.2019 10:00		04.04.2019 10:25		04.04.2019 10:45		04.04.2019 11:00		04.04.2019 11:15		04.04.2019 11:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.09.2019 10:40		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00	
	Analyzed:	04.10.2019 21:14		04.12.2019 17:42		04.12.2019 18:01		04.12.2019 18:08		04.12.2019 18:14		04.12.2019 18:33	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1940	25.0	47.4	2.50	188	2.50	6690	25.0	259	2.50	736	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4160	5.00	3110	5.00	420	5.00	10100	5.00	653	5.00	1230	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620285

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.05.2019 15:28
Report Date: 04.23.2019 15:52
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620285-007		620285-008		620285-009		620285-010		620285-011		620285-012	
	Field Id:	NM-MW-1-W-190404		NM-MW-5-W-190404		NM-MW-6-W-190404		NM-MW-11-W-190404		NM-MW-11-WD-19040		NM-MW-13-W-190404	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.04.2019 11:45		04.04.2019 11:55		04.04.2019 12:10		04.04.2019 12:40		04.04.2019 00:00		04.04.2019 13:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00	
	Analyzed:	04.12.2019 18:40		04.12.2019 18:46		04.12.2019 18:52		04.12.2019 18:59		04.12.2019 19:05		04.12.2019 19:11	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		330	5.00	175	5.00	161	2.50	185	10.0	185	10.0	225	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1400	5.00	1240	5.00	813	5.00	1870	5.00	1920	5.00	1090	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620285

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.05.2019 15:28
Report Date: 04.23.2019 15:52
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620285-013		620285-014		620285-015		620285-016		620285-017		620285-018	
	Field Id:	NM-MW-10-W-190404		NM-MW-12-W-190404		Wilson Ranch-W-190404		NM-MW-9-W-190504		Smith-W-190504		MW-29-W-190504	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.04.2019 13:48		04.04.2019 14:10		04.04.2019 14:20		04.05.2019 10:00		04.05.2019 10:15		04.05.2019 10:40	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00	
	Analyzed:	04.12.2019 19:30		04.12.2019 19:49		04.12.2019 19:56		04.12.2019 20:02		04.12.2019 20:08		04.12.2019 20:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		396	5.00	739	5.00	1480	10.0	297	5.00	1510	10.0	508	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1670	5.00	1310	5.00	2440	5.00	786	5.00	2490	5.00	1100	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620285

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.05.2019 15:28
Report Date: 04.23.2019 15:52
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620285-019		620285-020		620285-021		620285-022		620285-023		620285-024	
	Field Id:	MW-28-W-190504		Smith-WD-190504		MW-9-W-190504		MW-8-W-190504		DHU-FWS-W-190504		MW-27-W-190504	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.05.2019 10:50		04.05.2019 00:00		04.05.2019 11:15		04.05.2019 11:30		04.05.2019 11:40		04.05.2019 11:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.12.2019 16:00		04.12.2019 16:00		04.12.2019 16:00		04.15.2019 09:30		04.15.2019 09:30		04.15.2019 09:30	
	Analyzed:	04.12.2019 20:21		04.12.2019 20:27		04.12.2019 20:34		04.15.2019 10:33		04.15.2019 10:53		04.15.2019 10:59	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		851	10.0	1490	10.0	1200	10.0	1060	10.0	658	25.0	2830	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3260	5.00	2470	5.00	4230	5.00	2460	5.00	3120	5.00	4490	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620285

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.05.2019 15:28
Report Date: 04.23.2019 15:52
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	620285-025		620285-026		620285-027		620285-028			
	Field Id:	MW-20-W-190504		MW-10-WD-190504		MW-10-W-190504		MW-31-W-190504			
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER			
	Sampled:	04.05.2019 12:00		04.05.2019 00:00		04.05.2019 12:15		04.05.2019 12:30			
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.15.2019 09:30		04.15.2019 09:30		04.15.2019 09:30		04.15.2019 09:30			
	Analyzed:	04.15.2019 11:06		04.15.2019 11:12		04.15.2019 11:32		04.15.2019 11:38			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL		
Chloride		1430	10.0	5780	25.0	5760	25.0	11800	50.0		
TDS by SM2540C	***Extracted:***										
	Analyzed:	04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43		04.09.2019 15:43			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL		
Total Dissolved Solids		2410	5.00	8190	5.00	8100	5.00	16200	5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 620285

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.23.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)

04.23.2019

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **620285**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 620285. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 620285 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-7-W-190404	W	04.04.2019 10:00		620285-001
RRR Ranch-W-190404	W	04.04.2019 10:25		620285-002
NM-MW-4-W-190404	W	04.04.2019 10:45		620285-003
NM-MW-8-W-190404	W	04.04.2019 11:00		620285-004
NM-MW-3-W-190404	W	04.04.2019 11:15		620285-005
NM-MW-2-W-190404	W	04.04.2019 11:30		620285-006
NM-MW-1-W-190404	W	04.04.2019 11:45		620285-007
NM-MW-5-W-190404	W	04.04.2019 11:55		620285-008
NM-MW-6-W-190404	W	04.04.2019 12:10		620285-009
NM-MW-11-W-190404	W	04.04.2019 12:40		620285-010
NM-MW-11-WD-190404	W	04.04.2019 00:00		620285-011
NM-MW-13-W-190404	W	04.04.2019 13:15		620285-012
NM-MW-10-W-190404	W	04.04.2019 13:48		620285-013
NM-MW-12-W-190404	W	04.04.2019 14:10		620285-014
Wilson Ranch-W-190404	W	04.04.2019 14:20		620285-015
NM-MW-9-W-190504	W	04.05.2019 10:00		620285-016
Smith-W-190504	W	04.05.2019 10:15		620285-017
MW-29-W-190504	W	04.05.2019 10:40		620285-018
MW-28-W-190504	W	04.05.2019 10:50		620285-019
Smith-WD-190504	W	04.05.2019 00:00		620285-020
MW-9-W-190504	W	04.05.2019 11:15		620285-021
MW-8-W-190504	W	04.05.2019 11:30		620285-022
DHU-FWS-W-190504	W	04.05.2019 11:40		620285-023
MW-27-W-190504	W	04.05.2019 11:50		620285-024
MW-20-W-190504	W	04.05.2019 12:00		620285-025
MW-10-WD-190504	W	04.05.2019 00:00		620285-026
MW-10-W-190504	W	04.05.2019 12:15		620285-027
MW-31-W-190504	W	04.05.2019 12:30		620285-028

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *620285*

Report Date: *04.23.2019*
Date Received: *04.05.2019*

Sample receipt non conformances and comments:

Report revised 04/23/19 to correct field IDs for samples 620285-021 and 620285-022 to match chain of custody.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3085629 Inorganic Anions by EPA 300/300.1

Lab Sample ID 620285-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference.

Lab Sample ID 620285-012 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference.

Samples in the analytical batch are: 620285-002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3085716 Inorganic Anions by EPA 300/300.1

Lab Sample ID 620285-022 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 620285-022, -023, -024, -025, -026, -027, -028.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-001 Date Collected: 04.04.2019 10:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.09.2019 10:40

Seq Number: 3085303

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1940**	25.0	4.29	mg/L	04.10.2019 21:14		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-002 Date Collected: 04.04.2019 10:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.4**	2.50	0.429	mg/L	04.12.2019 17:42		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3110**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-003 Date Collected: 04.04.2019 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**188**	2.50	0.429	mg/L	04.12.2019 18:01		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**420**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-004 Date Collected: 04.04.2019 11:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6690**	25.0	4.29	mg/L	04.12.2019 18:08		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10100**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-005 Date Collected: 04.04.2019 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**259**	2.50	0.429	mg/L	04.12.2019 18:14		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**653**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-006 Date Collected: 04.04.2019 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**736**	5.00	0.858	mg/L	04.12.2019 18:33		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1230**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-007 Date Collected: 04.04.2019 11:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**330**	5.00	0.858	mg/L	04.12.2019 18:40		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1400**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-008 Date Collected: 04.04.2019 11:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**175**	5.00	0.858	mg/L	04.12.2019 18:46		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-009 Date Collected: 04.04.2019 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**161**	2.50	0.429	mg/L	04.12.2019 18:52		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**813**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-010 Date Collected: 04.04.2019 12:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	10.0	1.72	mg/L	04.12.2019 18:59		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1870**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-WD-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-011 Date Collected: 04.04.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	10.0	1.72	mg/L	04.12.2019 19:05		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1920**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-012 Date Collected: 04.04.2019 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**225**	5.00	0.858	mg/L	04.12.2019 19:11		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085169

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1090**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-013 Date Collected: 04.04.2019 13:48

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**396**	5.00	0.858	mg/L	04.12.2019 19:30		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1670**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-014 Date Collected: 04.04.2019 14:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**739**	5.00	0.858	mg/L	04.12.2019 19:49		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1310**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Ranch-W-190404** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-015 Date Collected: 04.04.2019 14:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1480**	10.0	1.72	mg/L	04.12.2019 19:56		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2440**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-016 Date Collected: 04.05.2019 10:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**297**	5.00	0.858	mg/L	04.12.2019 20:02		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**786**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-017 Date Collected: 04.05.2019 10:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1510**	10.0	1.72	mg/L	04.12.2019 20:08		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2490**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-018 Date Collected: 04.05.2019 10:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**508**	5.00	0.858	mg/L	04.12.2019 20:15		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1100**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-019 Date Collected: 04.05.2019 10:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**851**	10.0	1.72	mg/L	04.12.2019 20:21		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3260**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith-WD-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-020 Date Collected: 04.05.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1490**	10.0	1.72	mg/L	04.12.2019 20:27		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2470**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-021 Date Collected: 04.05.2019 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.12.2019 16:00

Seq Number: 3085629

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1200**	10.0	1.72	mg/L	04.12.2019 20:34		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4230**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-022 Date Collected: 04.05.2019 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1060**	10.0	1.72	mg/L	04.15.2019 10:33		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2460**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-023 Date Collected: 04.05.2019 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**658**	25.0	4.29	mg/L	04.15.2019 10:53		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3120**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-024 Date Collected: 04.05.2019 11:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2830**	25.0	4.29	mg/L	04.15.2019 10:59		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4490**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-025 Date Collected: 04.05.2019 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1430**	10.0	1.72	mg/L	04.15.2019 11:06		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2410**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-WD-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-026 Date Collected: 04.05.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5780**	25.0	4.29	mg/L	04.15.2019 11:12		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8190**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-027 Date Collected: 04.05.2019 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5760**	25.0	4.29	mg/L	04.15.2019 11:32		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8100**	5.00	5.00	mg/L	04.09.2019 15:43		1

Certificate of Analytical Results 620285

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-190504** Matrix: Ground Water Date Received:04.05.2019 15:28

Lab Sample Id: 620285-028 Date Collected: 04.05.2019 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2019 09:30

Seq Number: 3085716

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11800**	50.0	8.58	mg/L	04.15.2019 11:38		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3085168

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**16200**	5.00	5.00	mg/L	04.09.2019 15:43		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 620285

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085303 Matrix: Water Date Prep: 04.09.2019
MB Sample Id: 7675334-1-BLK LCS Sample Id: 7675334-1-BKS LCSD Sample Id: 7675334-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.500	25.0	26.7	107	25.8	103	90-110	3	20	mg/L	04.10.2019 17:57	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085629 Matrix: Water Date Prep: 04.12.2019
MB Sample Id: 7675686-1-BLK LCS Sample Id: 7675686-1-BKS LCSD Sample Id: 7675686-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.500	25.0	25.7	103	25.8	103	90-110	0	20	mg/L	04.12.2019 17:30	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085716 Matrix: Water Date Prep: 04.15.2019
MB Sample Id: 7675770-1-BLK LCS Sample Id: 7675770-1-BKS LCSD Sample Id: 7675770-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.500	25.0	27.4	110	27.4	110	90-110	0	20	mg/L	04.15.2019 10:20	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085303 Matrix: Water Date Prep: 04.09.2019
Parent Sample Id: 620148-003 MS Sample Id: 620148-003 S MSD Sample Id: 620148-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	332	125	428	77	464	106	90-110	8	20	mg/L	04.10.2019 18:18	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085303 Matrix: Water Date Prep: 04.09.2019
Parent Sample Id: 620148-009 MS Sample Id: 620148-009 S MSD Sample Id: 620148-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	93.1	125	203	88	206	90	90-110	1	20	mg/L	04.10.2019 19:53	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085629 Matrix: Ground Water Date Prep: 04.12.2019
Parent Sample Id: 620285-002 MS Sample Id: 620285-002 S MSD Sample Id: 620285-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	47.4	125	186	111	171	99	90-110	8	20	mg/L	04.12.2019 17:49	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 620285

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085629 Matrix: Ground Water Date Prep: 04.12.2019
Parent Sample Id: 620285-012 MS Sample Id: 620285-012 S MSD Sample Id: 620285-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	225	250	452	91	502	111	90-110	10	20	mg/L	04.12.2019 19:18	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3085716 Matrix: Ground Water Date Prep: 04.15.2019
Parent Sample Id: 620285-022 MS Sample Id: 620285-022 S MSD Sample Id: 620285-022 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1060	500	1590	106	1490	86	90-110	6	20	mg/L	04.15.2019 15:23	X

Analytical Method: TDS by SM2540C
Seq Number: 3085168 Matrix: Water
MB Sample Id: 3085168-1-BLK LCS Sample Id: 3085168-1-BKS LCSD Sample Id: 3085168-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	6.50	1000	944	94	945	95	80-120	0	10	mg/L	04.09.2019 15:43	

Analytical Method: TDS by SM2540C
Seq Number: 3085169 Matrix: Water
MB Sample Id: 3085169-1-BLK LCS Sample Id: 3085169-1-BKS LCSD Sample Id: 3085169-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	6.00	1000	953	95	945	95	80-120	1	10	mg/L	04.09.2019 15:43	

Analytical Method: TDS by SM2540C
Seq Number: 3085168 Matrix: Ground Water
Parent Sample Id: 620285-013 MD Sample Id: 620285-013 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1670	1670	0	10	mg/L	04.09.2019 15:43	

Analytical Method: TDS by SM2540C
Seq Number: 3085168 Matrix: Ground Water
Parent Sample Id: 620285-015 MD Sample Id: 620285-015 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2440	2350	4	10	mg/L	04.09.2019 15:43	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 620285

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3085169 Matrix: Water
Parent Sample Id: 620014-002 MD Sample Id: 620014-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1410	1430	1	10	mg/L	04.09.2019 15:43	

Analytical Method: **TDS by SM2540C**
Seq Number: 3085169 Matrix: Ground Water
Parent Sample Id: 620285-003 MD Sample Id: 620285-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	420	426	1	10	mg/L	04.09.2019 15:43	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 199 of 1515

Chain of Custody

Work Order No: 620285

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Joe Mireles, Mike Moffitt	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.2 | 0.1	Thermometer ID	T8
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-7-W-190404	GW	4-4	1000		1	X	X
RRR Ranch-W-190404			1025				
NM-MW-4-W-190404			1045				
NM-MW-8-W-190404			1100				
NM-MW-3-W-190404			1115				
NM-MW-2-W-190404			1130				
NM-MW-1-W-190404			1145				
NM-MW-5-W-190404			1155				
NM-MW-6-W-190404			1210				
NM-MW-11-W-190404	GW	4-4	1240		1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3		4/5/19 1520	4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 42 of 45

Page 200 of 1515

Chain of Custody

Work Order No: E20285

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine ☒	
P.O. Number:		Rush:	
Sampler's Name:	Joe Mireles Mike Moffitt	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.2/0.1	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-11-W-190404	GW	4/4	—	—	1	X	X
NM-MW-13-W-190404		4/4	1315		1		
NM-MW-10-W-190404		4/4	1348		1		
NM-MW-12-W-190404		4/4	1410		1		
Wilson Ranch-W-190404		4/4	1420		3		
NM-MW-9-W-190504		4/5	1000		1		
Smith-W-190504		4/5	1015		1		
MW-29-W-190504		4/5	1040		1		
MW-28-W-190504		4/5	1050		1	↓	↓
Smith-WD-190504	GW	4/5	—	—	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

MS and MSD parent

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Joe Mireles		4/5/19 1529	2		
3				4		
5				6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 43 of 45

Page 201 of 1515

Chain of Custody

Work Order No: 620295

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0-2|0.1	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-9-W-190504	GW	4/5	1115	—	1	X	X
MW-8-W-190504	GW	4/5	1130	—	1		
DHU-FWS-W-190504	GW	4/5	1140	—	1		
MW-27-W-190504	GW	4/5	1150	—	1		
MW-20-W-190504	GW	4/5	1200	—	1		
MW-10-WD-190504	GW	4/5	—	—	1		
MW-10-W-190504	GW	4/5	1215	—	1	↓	↓
MW-31-W-190506	GW	4/5	1230	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			4/5/19 1500	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 44 of 45

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.05.2019 03.28.00 PM

Work Order #: 620285

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Katie Lowe Date: 04.05.2019

Checklist reviewed by: Debbie Simmons Date: 04.07.2019

Debbie Simmons

Certificate of Analysis Summary 620697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Apr-10-19 03:00 pm
Report Date: 03-MAY-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620697-001		620697-002		620697-003		620697-004		620697-005		620697-006	
	Field Id:	MW-19-W-190904		MW-18-W-190904		MW-24-W-190904		MW-26-W-190904		MW-25-W-190904		MW-11-W-190904	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-09-19 09:45		Apr-09-19 09:55		Apr-09-19 10:05		Apr-09-19 10:15		Apr-09-19 10:30		Apr-09-19 10:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-17-19 18:30		Apr-17-19 18:30		Apr-17-19 18:30		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00	
	Analyzed:	Apr-18-19 01:12		Apr-18-19 01:21		Apr-18-19 01:29		Apr-18-19 23:51		Apr-18-19 23:59		Apr-19-19 00:24	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		7000	50.0	24600	100	4370	25.0	1340	25.0	24100	100	7840	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		10500	5.00	33300	5.00	8250	5.00	2830	5.00	33100	5.00	11700	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Apr-10-19 03:00 pm
Report Date: 03-MAY-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620697-007		620697-008		620697-009		620697-010		620697-011		620697-012	
	Field Id:	MW-6-W-190904		MW-5-W-190904		MW-3-W-190904		Tract 4-W-190904		MW-14-W-190904		MW-4-W-190904	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-09-19 11:00		Apr-09-19 11:15		Apr-09-19 11:35		Apr-09-19 11:50		Apr-09-19 12:10		Apr-09-19 12:20	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00	
	Analyzed:	Apr-19-19 00:33		Apr-19-19 00:41		Apr-19-19 00:50		Apr-19-19 13:11		Apr-19-19 00:58		Apr-19-19 01:31	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		418	5.00	300	5.00	636	5.00	350	5.00	1610	25.0	377	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1500	5.00	257	5.00	1370	5.00	1070	5.00	2940	5.00	877	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Apr-10-19 03:00 pm
Report Date: 03-MAY-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	620697-013		620697-014		620697-015		620697-016		620697-017		620697-018	
	Field Id:	Livermore-W-191004		MW-30-W-191004		MW-13-W-191004		MW-15-W-191004		MW-16-W-191004		MW-21-W-191004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-10-19 09:45		Apr-10-19 10:00		Apr-10-19 10:05		Apr-10-19 10:30		Apr-10-19 10:40		Apr-10-19 10:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:00	
	Analyzed:	Apr-19-19 01:40		Apr-19-19 02:05		Apr-19-19 02:13		Apr-19-19 02:22		Apr-19-19 02:30		Apr-19-19 02:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2660	25.0	2400	25.0	2020	25.0	1110	10.0	508	5.00	6970	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4670	5.00	4160	5.00	4160	5.00	1740	5.00	1240	5.00	11000	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 620697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Apr-10-19 03:00 pm
Report Date: 03-MAY-19
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	620697-019		620697-020		620697-021		620697-022			
	Field Id:	MW-17-W-191004		MW-23-W-191004		MW-22-W-191004		MW-12-W-191004			
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER			
	Sampled:	Apr-10-19 11:00		Apr-10-19 11:10		Apr-10-19 11:20		Apr-10-19 11:35			
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-18-19 16:00		Apr-18-19 16:00		Apr-18-19 16:30		Apr-18-19 16:30			
	Analyzed:	Apr-19-19 02:47		Apr-19-19 02:55		Apr-19-19 04:11		Apr-19-19 04:19			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL		
Chloride		9440	50.0	6540	25.0	10900	50.0	14100	50.0		
TDS by SM2540C	***Extracted:***										
	Analyzed:	Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21			
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL		
Total Dissolved Solids		14500	5.00	10200	5.00	16200	5.00	21700	5.00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 620697

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

03-MAY-19

Collected By: Client





1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03-MAY-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **620697**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 620697. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 620697 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-19-W-190904	W	04-09-19 09:45		620697-001
MW-18-W-190904	W	04-09-19 09:55		620697-002
MW-24-W-190904	W	04-09-19 10:05		620697-003
MW-26-W-190904	W	04-09-19 10:15		620697-004
MW-25-W-190904	W	04-09-19 10:30		620697-005
MW-11-W-190904	W	04-09-19 10:45		620697-006
MW-6-W-190904	W	04-09-19 11:00		620697-007
MW-5-W-190904	W	04-09-19 11:15		620697-008
MW-3-W-190904	W	04-09-19 11:35		620697-009
Tract 4-W-190904	W	04-09-19 11:50		620697-010
MW-14-W-190904	W	04-09-19 12:10		620697-011
MW-4-W-190904	W	04-09-19 12:20		620697-012
Livermore-W-191004	W	04-10-19 09:45		620697-013
MW-30-W-191004	W	04-10-19 10:00		620697-014
MW-13-W-191004	W	04-10-19 10:05		620697-015
MW-15-W-191004	W	04-10-19 10:30		620697-016
MW-16-W-191004	W	04-10-19 10:40		620697-017
MW-21-W-191004	W	04-10-19 10:50		620697-018
MW-17-W-191004	W	04-10-19 11:00		620697-019
MW-23-W-191004	W	04-10-19 11:10		620697-020
MW-22-W-191004	W	04-10-19 11:20		620697-021
MW-12-W-191004	W	04-10-19 11:35		620697-022
MW-34-W-191004	W	04-10-19 11:55		Not Analyzed
MW-33-W-191004	W	04-10-19 12:05		Not Analyzed
MW-32-W-191004	W	04-10-19 12:15		Not Analyzed

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *620697*

Report Date: *03-MAY-19*
Date Received: *04/10/2019*

Sample receipt non conformances and comments:

report revised 5/3/19 to report MW-32, MW-33 and MW-34 on a separate report and also correct IDs for samples collected on 4/10/19.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-001 Date Collected: 04.09.19 09.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.17.19 18.30

Seq Number: 3086124

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7000**	50.0	8.58	mg/L	04.18.19 01.12		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10500**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-002 Date Collected: 04.09.19 09.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.17.19 18.30

Seq Number: 3086124

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24600**	100	17.2	mg/L	04.18.19 01.21		200

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**33300**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-003 Date Collected: 04.09.19 10.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.17.19 18.30

Seq Number: 3086124

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4370**	25.0	4.29	mg/L	04.18.19 01.29		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8250**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-004 Date Collected: 04.09.19 10.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	25.0	4.29	mg/L	04.18.19 23.51		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2830**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-005 Date Collected: 04.09.19 10.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24100**	100	17.2	mg/L	04.18.19 23.59		200

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**33100**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-006 Date Collected: 04.09.19 10.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7840**	50.0	8.58	mg/L	04.19.19 00.24		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11700**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-007 Date Collected: 04.09.19 11.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**418**	5.00	0.858	mg/L	04.19.19 00.33		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1500**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-008 Date Collected: 04.09.19 11.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**300**	5.00	0.858	mg/L	04.19.19 00.41		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**257**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-009 Date Collected: 04.09.19 11.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**636**	5.00	0.858	mg/L	04.19.19 00.50		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1370**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Tract 4-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-010 Date Collected: 04.09.19 11.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**350**	5.00	0.858	mg/L	04.19.19 13.11		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-011 Date Collected: 04.09.19 12.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1610**	25.0	4.29	mg/L	04.19.19 00.58		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2940**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-190904** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-012 Date Collected: 04.09.19 12.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**377**	5.00	0.858	mg/L	04.19.19 01.31		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**877**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-013 Date Collected: 04.10.19 09.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2660**	25.0	4.29	mg/L	04.19.19 01.40		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4670**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-014 Date Collected: 04.10.19 10.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2400**	25.0	4.29	mg/L	04.19.19 02.05		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-015 Date Collected: 04.10.19 10.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2020**	25.0	4.29	mg/L	04.19.19 02.13		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-016 Date Collected: 04.10.19 10.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1110**	10.0	1.72	mg/L	04.19.19 02.22		20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1740**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-017 Date Collected: 04.10.19 10.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**508**	5.00	0.858	mg/L	04.19.19 02.30		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-018 Date Collected: 04.10.19 10.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6970**	25.0	4.29	mg/L	04.19.19 02.38		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-019 Date Collected: 04.10.19 11.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9440**	50.0	8.58	mg/L	04.19.19 02.47		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**14500**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-020 Date Collected: 04.10.19 11.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.00

Seq Number: 3086297

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6540**	25.0	4.29	mg/L	04.19.19 02.55		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10200**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-021 Date Collected: 04.10.19 11.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.30

Seq Number: 3086304

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10900**	50.0	8.58	mg/L	04.19.19 04.11		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085483

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**16200**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 620697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 620697-022 Date Collected: 04.10.19 11.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.30

Seq Number: 3086304

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14100**	50.0	8.58	mg/L	04.19.19 04.19		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085483

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**21700**	5.00	5.00	mg/L	04.11.19 16.21		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 620697

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086124 Matrix: Water Date Prep: 04.17.19
MB Sample Id: 7676021-1-BLK LCS Sample Id: 7676021-1-BKS LCSD Sample Id: 7676021-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.197	25.0	26.3	105	26.0	104	90-110	1	20	mg/L	04.17.19 21:26	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086297 Matrix: Water Date Prep: 04.18.19
MB Sample Id: 7676093-1-BLK LCS Sample Id: 7676093-1-BKS LCSD Sample Id: 7676093-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	26.7	107	26.9	108	90-110	1	20	mg/L	04.18.19 22:42	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086304 Matrix: Water Date Prep: 04.18.19
MB Sample Id: 7676094-1-BLK LCS Sample Id: 7676094-1-BKS LCSD Sample Id: 7676094-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	27.5	110	26.7	107	90-110	3	20	mg/L	04.19.19 03:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086124 Matrix: Water Date Prep: 04.17.19
Parent Sample Id: 620864-007 MS Sample Id: 620864-007 S MSD Sample Id: 620864-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	636	250	902	106	884	99	90-110	2	20	mg/L	04.18.19 13:04	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086124 Matrix: Drinking Water Date Prep: 04.17.19
Parent Sample Id: 621306-001 MS Sample Id: 621306-001 S MSD Sample Id: 621306-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.11	25.0	33.2	104	32.6	102	90-110	2	20	mg/L	04.17.19 21:51	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 620697

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3086297 Matrix: Ground Water Date Prep: 04.18.19
Parent Sample Id: 620697-010 MS Sample Id: 620697-010 S MSD Sample Id: 620697-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	350	250	604	102	615	106	90-110	2	20	mg/L	04.19.19 13:19	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3086297 Matrix: Drinking Water Date Prep: 04.18.19
Parent Sample Id: 621494-001 MS Sample Id: 621494-001 S MSD Sample Id: 621494-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.6	25.0	38.3	107	38.2	106	90-110	0	20	mg/L	04.18.19 23:17	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3086304 Matrix: Drinking Water Date Prep: 04.18.19
Parent Sample Id: 621493-001 MS Sample Id: 621493-001 S MSD Sample Id: 621493-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.1	25.0	43.8	103	45.0	108	90-110	3	20	mg/L	04.19.19 05:51	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3086304 Matrix: Drinking Water Date Prep: 04.18.19
Parent Sample Id: 621495-001 MS Sample Id: 621495-001 S MSD Sample Id: 621495-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.24	25.0	29.9	107	30.0	107	90-110	0	20	mg/L	04.19.19 03:54	

Analytical Method: **TDS by SM2540C**
Seq Number: 3085480 Matrix: Water
MB Sample Id: 3085480-1-BLK LCS Sample Id: 3085480-1-BKS LCSD Sample Id: 3085480-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	985	99	982	98	80-120	0	10	mg/L	04.11.19 16:21	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 620697

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3085483 Matrix: Water
MB Sample Id: 3085483-1-BLK LCS Sample Id: 3085483-1-BKS LCSD Sample Id: 3085483-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	995	100	987	99	80-120	1	10	mg/L	04.11.19 16:21	

Analytical Method: **TDS by SM2540C**
Seq Number: 3085480 Matrix: Ground Water
Parent Sample Id: 620697-001 MD Sample Id: 620697-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	10500	10700	2	10	mg/L	04.11.19 16:21	

Analytical Method: **TDS by SM2540C**
Seq Number: 3085480 Matrix: Ground Water
Parent Sample Id: 620697-011 MD Sample Id: 620697-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2940	3240	10	10	mg/L	04.11.19 16:21	

Analytical Method: **TDS by SM2540C**
Seq Number: 3085483 Matrix: Ground Water
Parent Sample Id: 620697-021 MD Sample Id: 620697-021 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	16200	15800	3	10	mg/L	04.11.19 16:21	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Page 237 of 1515

Chain of Custody

Work Order No: 420697

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Joshua Sharkey for Mickey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	0.4 0.3	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
MW-19-W-190904	GW	4-9	0945	—	1	X	X	
MW-18-W-190904			0955					
MW-24-W-190904			1005					
MW-26-W-190904			1015					
MW-25-W-190904			1030					
MW-11-W-190904			1045					
MW-6-W-190904			1100					
MW-5-W-190904			1115					
MW-3-W-190904			1135		1			MS/MSD
Tract 4-W-190904	GW	4-9	1150	—	3	X	X	MS/MSD parent

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Sharkey		04/10/19 1500	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.001
Page 35 of 38
Released to Imaging: 11/21/2023 10:32:34 AM

Page 238 of 1515

Chain of Custody

Work Order No: 19d097

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Joshua Sharkey, Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.4 / 0.3	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.1
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-14-W-190904	GW	4-9	1210	—	1	X	X
MW-4-W-190904	GW	4-9	1220				
Livermore-W-191004	GW	4-10	0945				
MW-30-W-191004			1000				
MW-13-W-191004			1005				
MW-15-W-191004			1030				
MW-16-W-191004			1040				
MW-21-W-191004			1050				
MW-17-W-191004			1100				
MW-23-W-191004	GW	4-10	1110	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Joshua Sharkey		04/10/19 1500	2		
3				4		
5				6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 36 of 38

Page 239 of 1515

Chain of Custody

Work Order No: 420697

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.4, 0.3	Thermometer ID		
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0	
Sample Custody Seals:	Yes ~~No~~ N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-22W-191004	GW	04/10/19	1120	—	1	X	X
MW-12-W-191004			1135				
MW-34-W-191004			1155				
MW-33-W-191004			1205				
MW-32-W-191004			1215				

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Johnna Shankey		04/10/19 1500	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 37 of 38

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04/10/2019 03:00:00 PM

Work Order #: 620697

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel — Date: 04/10/2019

Checklist reviewed by: Debbie Simmons — Date: 04/12/2019

Received by OCD: 3/23/2023 11:36:17 AM

Certificate of Analysis Summary 623143

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Apr-10-19 03:00 pm
Report Date: 03-MAY-19
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	623143-001		623143-002		623143-003					
	Field Id:	MW-34-W-191004		MW-33-W-191004		MW-32-W-191004					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	Apr-10-19 11:55		Apr-10-19 12:05		Apr-10-19 12:15					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-18-19 16:30		Apr-18-19 16:30		Apr-18-19 16:30					
	Analyzed:	Apr-19-19 04:27		Apr-19-19 04:36		Apr-19-19 05:01					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		69.9	2.50	183	2.50	373	5.00				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Apr-11-19 16:21		Apr-11-19 16:21		Apr-11-19 16:21					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		600	5.00	912	5.00	1170	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Debbie Simmons
Project Manager

Released to Imaging: 11/21/2023 10:32:34 AM

Analytical Report 623143

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

03-MAY-19

Collected By: Client





1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

03-MAY-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **623143**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 623143. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 623143 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 623143

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-34-W-191004	W	04-10-19 11:55		623143-001
MW-33-W-191004	W	04-10-19 12:05		623143-002
MW-32-W-191004	W	04-10-19 12:15		623143-003

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *623143*

Report Date: *03-MAY-19*
Date Received: *04/10/2019*

Sample receipt non conformances and comments:

per Brittany White, report MW-32, MW-33 and MW-34 separate.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 623143

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-34-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 623143-001 Date Collected: 04.10.19 11.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.30

Seq Number: 3086304

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.9**	2.50	0.429	mg/L	04.19.19 04.27		5

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085483

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**600**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 623143

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 623143-002 Date Collected: 04.10.19 12.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.30

Seq Number: 3086304

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**183**	2.50	0.429	mg/L	04.19.19 04.36		5

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085483

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**912**	5.00	5.00	mg/L	04.11.19 16.21		1

Certificate of Analytical Results 623143

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-W-191004** Matrix: Ground Water Date Received:04.10.19 15.00

Lab Sample Id: 623143-003 Date Collected: 04.10.19 12.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: CHE Date Prep: 04.18.19 16.30

Seq Number: 3086304

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**373**	5.00	0.858	mg/L	04.19.19 05.01		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3085483

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1170**	5.00	5.00	mg/L	04.11.19 16.21		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 623143

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086304 Matrix: Water Date Prep: 04.18.19
MB Sample Id: 7676094-1-BLK LCS Sample Id: 7676094-1-BKS LCSD Sample Id: 7676094-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	27.5	110	26.7	107	90-110	3	20	mg/L	04.19.19 03:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086304 Matrix: Drinking Water Date Prep: 04.18.19
Parent Sample Id: 621493-001 MS Sample Id: 621493-001 S MSD Sample Id: 621493-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.1	25.0	43.8	103	45.0	108	90-110	3	20	mg/L	04.19.19 05:51	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3086304 Matrix: Drinking Water Date Prep: 04.18.19
Parent Sample Id: 621495-001 MS Sample Id: 621495-001 S MSD Sample Id: 621495-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.24	25.0	29.9	107	30.0	107	90-110	0	20	mg/L	04.19.19 03:54	

Analytical Method: TDS by SM2540C
Seq Number: 3085483 Matrix: Water
MB Sample Id: 3085483-1-BLK LCS Sample Id: 3085483-1-BKS LCSD Sample Id: 3085483-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	995	100	987	99	80-120	1	10	mg/L	04.11.19 16:21	

Analytical Method: TDS by SM2540C
Seq Number: 3085483 Matrix: Ground Water
Parent Sample Id: 620697-021 MD Sample Id: 620697-021 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	16200	15800	3	10	mg/L	04.11.19 16:21	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Page 251 of 1515

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: ~~Dollarhide 191004~~ 623143

Page 3 of 3

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2019-001	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.4/0.3	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0
Sample Custody Seals:	Yes ~~No~~ N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
~~MW-22-W-191004~~	GW	04/04/19	1120	—	1	X	X	
~~MW-12-W-191004~~	"	"	1135	"	"	"	"	
MW-34-W-191004	"	"	1155	"	"	"	"	
MW-33-W-191004	"	"	1205	"	"	"	"	
MW-32-W-191004	"	"	1215	"	"	"	"	

Total 200.7 / 6010 **200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Johnna Strawberry		04/10/19 1500	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 11 of 12

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 05/03/2019 10:38:19 AM

Work Order #: 623143

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Katie Lowe Date: 05/03/2019

Checklist reviewed by: Debbie Simmons Date: 05/03/2019

Debbie Simmons

Appendix F
Historical Groundwater Analytical Data

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Monitor Wells			
43-K-1-MW			
	2/28/2007	**6,200**	**11,400**
	7/26/2007	**7,250**	**13,500**
	1/22/2008	**7,360**	**12,500**
	7/7/2008	**7,460**	**14,300**
	1/28/2009	**8,210**	**14,500**
	8/26/2009	**9,140**	**16,700**
	2/19/2010	**7,560**	**15,000**
	8/18/2010	**10,600**	**17,900**
	2/15/2011	**11,900**	**15,400**
	8/4/2011	**11,600**	**19,800**
	2/3/2012	**9,560**	**19,900**
	7/17/2015	**8,870**	**16,700**
	1/29/2016	NS	NS
	7/20/2016	**8,470**	**13,800**
	1/11/2017	**8,360**	**15,400**
	4/10/2017	NS	NS
	7/14/2017	**8,550**	**14,000**
	1/12/2018	**8,020**	**10,500**
	7/5/2018	**7,840**	**12,700**
	1/7/2019	**7,130**	**9,640**
44-I-1-MW			
	01/06	**1,909**	**3,728**
	04/06	**1,349**	**2,823**
	6/13/2006	**1,300**	**2,930**
	9/13/2006	**1,340**	**2,620**
	12/8/2006	**1,370**	**3,010**
	2/28/2007	**1,310**	**2,840**
	7/30/2007	**1,440**	**3,010**
	1/22/2008	**1,630**	**2,730**
	7/7/2008	**1,480**	**2,910**
	1/29/2009	**1,510**	**2,870**
	8/27/2009	**1,500**	**2,850**
	2/18/2010	**1,140**	**2,800**
	8/19/2010	**1,610**	**2,840**
	2/15/2011	**1,970**	**2,850**
	8/4/2011	**1,770**	**3,060**
	2/2/2012	**1,550**	**3,470**
	1/29/2013	**1,850**	**3,300**
	7/30/2013	**1,640**	**3,550**
	1/15/2014	**1,860**	**3,730**
	7/16/2014	**2,100**	**5,180**
	1/14/2015	**2,000**	**4,690**
	1/28/2016	**2,430**	**3,500**
	7/20/2016	**2,620**	**6,220**
	1/12/2017	**3,290**	**6,250**
	4/10/2017	NS	NS
	7/14/2017	**2,750**	**6,700**
	1/12/2018	**2,940**	**5,030**
	7/5/2018	**3,170**	**5,450**
	1/9/2019	**3,320**	**4,580**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-1-MW			
	01/06	**1,382**	**2,835**
	03/06	**1,551**	**3,139**
	6/13/2006	**1,550**	**3,570**
	9/13/2006	**1,910**	**3,270**
	12/8/2006	**1,810**	**3,090**
	2/28/2007	**1,600**	**3,530**
	7/30/2007	**1,830**	**3,480**
	1/22/2008	**2,090**	**3,390**
	7/7/2008	**1,960**	**3,780**
	1/29/2009	**1,870**	**4,070**
	8/28/2009	**2,480**	**4,050**
	2/19/2010	**1,850**	**4,480**
	8/19/2010	**2,600**	**4,440**
	2/15/2011	**2,630**	**4,960**
	8/4/2011	**2,890**	**5,740**
	2/2/2012	**2,740**	**5,900**
	1/28/2016	NS	NS
	7/20/2016	**2,440**	**5,980**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**3,650**	**8,630**
	1/12/2018	**3,410**	**6,190**
	7/5/2018	**4,300**	**6,910**
	1/9/2019	**4,850**	**6,190**
44-J-2-MW			
	01/06	**1,380**	**2,870**
	03/06	**1,911**	**3,745**
	6/13/2006	**1,760**	**3,910**
	9/13/2006	**2,230**	**3,790**
	12/8/2006	**2,270**	**3,660**
	2/28/2007	**1,820**	**3,770**
	7/30/2007	**2,090**	**4,050**
	1/22/2008	**2,040**	**3,800**
	7/7/2008	**2,130**	**4,290**
	1/29/2009	**2,260**	**4,800**
	8/28/2009	**2,820**	**5,030**
	2/18/2010	**2,280**	**5,840**
	8/20/2010	**2,930**	**5,900**
	2/15/2011	**3,000**	**5,780**
	8/5/2011	**3,090**	**13,200**
	2/2/2012	**3,200**	**7,600**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**8,680**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**4,160**	**10,000**
	1/12/2018	**4,560**	**7,820**
	7/5/2018	**5,050**	**8,000**
	1/9/2019	**4,930**	**7,020**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-3-MW			
	9/13/2006	**2,580**	**4,850**
	12/8/2006	**2,690**	**4,790**
	8/28/2009	**3,330**	**5,820**
	2/18/2010	**2,580**	**4,980**
	8/20/2010	**3,430**	**5,940**
	2/15/2011	**3,660**	**6,340**
	8/2/2011	**3,090**	**5,970**
	2/2/2012	**2,810**	**5,640**
	1/28/2016	NS	NS
	7/20/2016	**3,630**	**7,810**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**3,960**	**9,150**
	1/12/2018	**4,800**	**8,420**
	7/5/2018	**5,290**	**9,230**
	1/9/2019	**4,300**	**6,330**
44-J-4-MW			
	9/13/2006	**1,820**	**3,620**
	12/8/2006	**2,220**	**3,880**
	8/27/2009	**2,090**	**3,810**
	2/18/2010	**1,730**	**4,160**
	8/20/2010	**2,300**	**4,500**
	2/15/2011	**2,400**	**4,500**
	8/2/2011	**2,510**	**4,300**
	2/3/2012	**2,160**	**5,150**
	1/28/2016	NS	NS
	7/20/2016	**3,080**	**6,110**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,750**	**6,260**
	1/12/2018	**3,660**	**7,250**
	7/5/2018	**4,520**	**7,430**
	1/9/2019	**4,470**	**6,130**
44-J-5-MW			
	9/13/2006	**1,740**	**3,360**
	12/8/2006	**1,570**	**3,260**
	8/27/2009	**1,650**	**3,870**
	2/19/2010	**1,660**	**3,940**
	8/20/2010	**2,150**	**4,260**
	2/15/2011	**2,530**	**4,030**
	8/4/2011	**2,430**	**4,320**
	2/2/2012	**2,260**	**4,920**
	1/28/2016	NS	NS
	7/20/2016	**2,710**	**5,470**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,930**	**6,780**
	1/12/2018	**3,500**	**6,230**
	7/5/2018	**4,060**	**6,600**
	1/9/2019	**3,970**	**5,690**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-1-MW			
	01/06	**994**	**1,795**
	03/06	**1,686**	**2,951**
	6/14/2006	**2,580**	**5,290**
	9/12/2006	**1,990**	**4,110**
	12/7/2006	**3,740**	**7,960**
	2/28/2007	**3,650**	**8,130**
	7/30/2007	**3,770**	**9,480**
	1/22/2008	**3,850**	**6,250**
	7/7/2008	**3,770**	**7,140**
	1/28/2009	**3,810**	**8,230**
	8/27/2009	**3,710**	**6,780**
	2/18/2010	**3,150**	**6,720**
	8/17/2010	**4,090**	**6,520**
	2/15/2011	**4,150**	**6,800**
	8/2/2011	**1,960**	**8,390**
	2/2/2012	**3,520**	**9,160**
	1/28/2016	NS	NS
	7/20/2016	**2,690**	**6,540**
	1/12/2017	**2,860**	**3,340**
	4/10/2017	NS	NS
	7/20/2017	**2,580**	**5,020**
	1/12/2018	**2,300**	**4,650**
	7/5/2018	**2,530**	**4,220**
	1/9/2019	**2,680**	**3,650**
45-E-2-MW			
	01/06	98	601
	03/06	76	600
	6/14/2006	85	576
	9/12/2006	81	529
	12/7/2006	82	560
	2/28/2007	**1,170**	**2,210**
	7/30/2007	**1,260**	**2,290**
	1/22/2008	**1,240**	**2,100**
	7/7/2008	**1,310**	**2,300**
	1/28/2009	**1,280**	**2,540**
	8/26/2009	**322**	880
	2/18/2010	**460**	**1,160**
	8/18/2010	144	612
	2/15/2011	124	629
	8/2/2011	**1,450**	**3,290**
	2/2/2012	**738**	**1,620**
	1/28/2016	NS	NS
	7/20/2016	170	676
	1/12/2017	**2,370**	**4,320**
	4/10/2017	NS	NS
	7/20/2017	**1,720**	**3,780**
	1/12/2018	**718**	**3,050**
	7/5/2018	**1,790**	**3,130**
	1/9/2019	**1,660**	**3,040**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-3-MW			
	2/28/2007	**3,360**	**6,800**
	7/26/2007	**3,780**	**9,560**
	1/22/2008	**3,660**	**6,030**
	7/7/2008	**3,590**	**7,750**
	1/28/2009	**3,820**	**8,410**
	8/26/2009	**3,520**	**6,870**
	2/18/2010	**3,270**	**7,990**
	8/18/2010	**4,060**	**6,590**
	2/15/2011	**4,320**	**6,820**
	8/2/2011	**1,960**	**8,490**
	2/3/2012	**3,920**	**8,480**
	1/28/2016	NS	NS
	7/20/2016	**2,870**	**6,790**
	1/11/2017	**2,920**	**6,030**
	4/10/2017	NS	NS
	7/20/2017	**2,870**	**5,620**
	1/12/2018	**2,990**	**4,940**
	7/5/2018	**3,360**	**5,750**
	1/9/2019	**3,760**	**5,240**
45-F-1-MW			
	01/06	**619**	**1,270**
	03/06	**714**	**1,394**
	6/13/2006	**1,500**	**3,620**
	9/12/2006	**983**	**1,650**
	12/8/2006	**1,300**	**2,840**
	2/28/2007	**1,430**	**3,160**
	7/30/2007	**1,550**	**2,610**
	1/22/2008	**1,530**	**2,400**
	7/7/2008	**1,380**	**2,610**
	1/29/2009	**1,420**	**2,450**
	8/27/2009	**1,380**	**2,140**
	2/18/2010	**655**	**1,980**
	8/18/2010	**1,160**	**1,960**
	2/15/2011	**1,020**	**1,690**
	8/2/2011	**1,270**	**2,650**
	2/3/2012	**1,090**	**2,500**
	1/28/2016	NS	NS
	7/20/2016	**632**	**1,760**
	1/12/2017	**1,010**	**1,900**
	4/10/2017	NS	NS
	7/20/2017	**751**	**1,700**
	1/12/2018	**896**	**1,990**
	7/5/2018	**923**	**1,840**
	1/9/2019	**901**	**1,840**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-FF-MW			
	01/06	**613**	**1,277**
	03/06	**3,090**	**5,086**
	6/13/2006	**3,870**	**11,500**
	9/12/2006	**4,610**	**7,280**
	12/7/2006	**4,910**	**10,600**
	2/28/2007	**5,060**	**8,960**
	2/28/2007	**4,890**	**11,100**
	7/30/2007	**5,020**	**8,780**
	1/22/2008	**5,160**	**9,100**
	7/7/2008	**5,220**	**9,870**
	1/28/2009	**4,900**	**8,540**
	8/27/2009	**5,760**	**9,120**
	2/18/2010	**3,210**	**7,340**
	8/18/2010	**5,830**	**9,360**
	2/15/2011	**6,000**	**10,200**
	8/4/2011	**5,510**	**12,100**
	2/2/2012	**4,360**	**9,680**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**9,940**
	1/12/2017	**4,800**	**11,200**
	4/10/2017	NS	NS
	7/20/2017	**4,170**	**8,030**
	1/12/2018	**4,820**	**8,280**
	7/5/2018	**5,310**	**9,090**
	1/9/2019	**5,080**	**6,690**
58-B-1-MW			
	01/06	**836**	**1,624**
	03/06	**1,874**	**3,138**
	6/14/2006	**976**	**2,310**
	9/12/2006	**3,440**	**5,290**
	12/7/2006	**3,230**	**7,600**
	2/28/2007	**3,350**	**7,370**
	7/26/2007	**4,680**	**8,890**
	1/22/2008	**3,220**	**5,110**
	7/7/2008	**2,980**	**6,110**
	1/28/2009	**3,150**	**6,330**
	8/26/2009	**3,320**	**5,820**
	2/18/2010	**2,850**	**6,710**
	8/19/2010	**4,120**	**9,970**
	2/15/2011	**4,180**	**6,850**
	8/2/2011	**5,240**	**11,700**
	2/6/2012	**5,510**	**10,000**
	1/28/2016	NS	NS
	7/22/2016	**3,550**	**8,460**
	1/13/2017	**7,510**	**9,410**
	4/10/2017	NS	NS
	7/20/2017	**5,480**	**9,230**
	1/12/2018	**5,250**	**8,620**
	7/5/2018	**6,440**	**10,000**
	1/7/2019	**5,240**	**8,120**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
58-B-2-MW			
	01/06	**1,103**	**2,024**
	03/06	**650**	**1,329**
	6/14/2006	**4,510**	**8,700**
	9/12/2006	**8,220**	**19,000**
	12/7/2006	**4,700**	**10,700**
	2/28/2007	**5,900**	**10,800**
	7/26/2007	**6,270**	**12,200**
	1/22/2008	**6,200**	**11,300**
	7/7/2008	**5,830**	**11,600**
	1/28/2009	**5,260**	**10,600**
	8/26/2009	**6,260**	**10,800**
	2/18/2010	**4,870**	**9,680**
	8/19/2010	**6,640**	**10,200**
	2/15/2011	**4,100**	**7,390**
	8/2/2011	**1,410**	**13,600**
	2/6/2012	**5,480**	**13,600**
	1/28/2016	**3,550**	**7,440**
	7/22/2016	**2,740**	**6,130**
	1/13/2017	**4,190**	**8,700**
	4/10/2017	NS	NS
	7/20/2017	**3,340**	**5,910**
	1/12/2018	**3,470**	**5,860**
	7/5/2018	**3,900**	**6,410**
	1/7/2019	**4,190**	**5,470**
58-B-3-MW			
	2/28/2007	**607**	**2,150**
	7/26/2007	**1,200**	**2,340**
	1/22/2008	**1,250**	**2,010**
	7/7/2008	**1,140**	**2,480**
	1/28/2009	**1,300**	**2,400**
	8/26/2009	**1,370**	**2,320**
	2/19/2010	**1,070**	**2,570**
	8/19/2010	**1,450**	**2,340**
	2/15/2011	**1,680**	**2,500**
	8/2/2011	**1,450**	**2,920**
	2/3/2012	**1,330**	**2,660**
	1/29/2013	**1,360**	**2,370**
	7/30/2013	**1,230**	**2,540**
	1/15/2014	**1,250**	**2,920**
	7/16/2014	**1,450**	**4,360**
	1/14/2015	**312**	**938**
	7/15/2015	**715**	**1,770**
	1/28/2016	**688**	**1,660**
	7/22/2016	**570**	**1,290**
	1/10/2017	**683**	**1,830**
	4/10/2017	NS	NS
	7/20/2017	**666**	**1,440**
	1/12/2018	**791**	**1,290**
	7/6/2018	**976**	**1,580**
	1/7/2019	**900**	**2,070**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
MW-2			
	8/10/2015	204	**1,950**
	1/28/2016	NS	NS
	7/21/2016	NS	NS
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/6/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS
MW-3			
	8/10/2015	249	**1,100**
	1/27/2016	**484**	**1,070**
	7/21/2016	**486**	**1,430**
	1/11/2017	**564**	**1,410**
	4/10/2017	**605**	**1,960**
	7/19/2017	**572**	**1,400**
	10/5/2017	**569**	**1,520**
	1/12/2018	**566**	**1,410**
	4/5/2018	**589**	**1,300**
	7/3/2018	**593**	**1,310**
	10/4/2018	**626**	**1,310**
	1/8/2019	194	619
	4/9/2019	**636**	**1,370**
MW-4			
	8/10/2015	240	**1,850**
	1/27/2016	250	941
	7/21/2016	**355**	**2,260**
	1/11/2017	**353**	**1,260**
	4/10/2017	NS	NS
	7/20/2017	**325**	1,000
	10/5/2017	**347**	**1,010**
	1/12/2018	**345**	968
	4/6/2018	**350**	413
	7/3/2018	**338**	831
	10/4/2018	**350**	883
	1/8/2019	258	426
	4/9/2019	**377**	877

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
MW-5			
	8/10/2015	**837**	**2,960**
	1/28/2016	**459**	**2,130**
	7/21/2016	**397**	**1,690**
	1/11/2017	**364**	**1,400**
	4/10/2017	**346**	**1,560**
	7/19/2017	**309**	**1,170**
	10/5/2017	**302**	**1,040**
	1/12/2018	293	**1,130**
	4/5/2018	289	**1,140**
	7/3/2018	274	**1,020**
	10/4/2018	278	**1,050**
	1/8/2019	244	**1,050**
	4/9/2019	**300**	257
MW-6			
	8/10/2015	**578**	**2,180**
	1/28/2016	**484**	**2,090**
	7/21/2016	**450**	**1,590**
	1/11/2017	**441**	**1,330**
	4/10/2017	**468**	**1,760**
	7/18/2017	**439**	**1,650**
	10/5/2017	**407**	**1,530**
	1/12/2018	**408**	**1,490**
	4/5/2018	**411**	**1,430**
	7/3/2018	**402**	**1,340**
	10/4/2018	**404**	**1,450**
	1/8/2019	**372**	**1,510**
	4/9/2019	**418**	**1,500**
MW-7			
	8/10/2015	**772**	**3,230**
	1/28/2016	260	**2,620**
	7/21/2016	**524/508**	**2,510/2,410**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/3/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-8			
	8/10/2015	711	2,430
	1/28/2016	763	2,310
	7/21/2016	758	2,140
	1/13/2017	985	2,410
	4/7/2017	933	2,120
	7/17/2017	845	2,280
	10/4/2017	803	2,210
	1/12/2018	813	2,250
	4/5/2018	839	2,300
	7/5/2018	868	2,350
	10/3/2018	888	2,490
	1/8/2019	852	2,160
	4/5/2019	1,060	2,460
MW-9			
	8/10/2015	1,650	3,390
	1/28/2016	2,160	4,410
	7/21/2016	2,140	6,790
	1/13/2017	3,520	4,540
	4/7/2017	3,070	6,760
	7/17/2017	2,830	4,930
	10/4/2017	2,230	4,730
	1/12/2018	2,540	4,380
	4/5/2018	2,930	4,690
	7/5/2018	2,880	4,250
	10/3/2018	2,910	4,270
	1/7/2019	2,620	807
	4/5/2019	1,200	4,230
MW-10			
	8/10/2015	3,480	7,980
	1/28/2016	5,320	9,850
	7/20/2016	5,920	12,400
	1/12/2017	6,360	10,500
	4/7/2017	5,930	12,700
	7/18/2017	5,320	9,720
	10/5/2017	5,190	8,560
	1/12/2018	5,350	9,650
	4/5/2018	5,470	8,630
	7/3/2018	5,340	11,000
	10/3/2018	5,880	8,570
	1/8/2019	5,130	7,050
	4/5/2019	5,760	8,100

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-11			
	8/10/2015	458	3,260
	1/28/2016	5,280	5,720
	7/21/2016	6,830	16,100
	1/11/2017	7,310	18,800
	4/10/2017	7,760	17,100
	7/18/2017	7,620	12,700
	10/5/2017	7,110	12,600
	1/12/2018	8,120	12,700
	4/5/2018	7,990	11,000
	7/3/2018	7,940	11,800
	10/4/2018	8,310	12,000
	1/8/2019	8,240	9,730
	4/9/2019	7,840	11,700
MW-12			
	8/10/2015	7,680	20,500
	1/28/2016	12,800	24,400
	7/20/2016	12,000	27,500
	1/11/2017	16,400	24,100
	4/7/2017	13,900	28,900
	7/18/2017	13,600	23,000
	10/5/2017	14,000	23,000
	1/12/2018	13,100	21,400
	4/5/2018	13,300	19,400
	7/3/2018	13,200	20,200
	10/4/2018	15,000	24,400
	1/8/2019	13,900	14,000
	4/10/2019	14,100	21,700
MW-13			
	8/10/2015	1,740	4,100
	1/28/2016	1,850	4,110
	7/21/2016	1,650	5,300
	1/11/2017	1,270	1,660
	4/10/2017	1,890	4,760
	7/19/2017	1,730	4,010
	10/5/2017	1,910	5,260
	1/12/2018	1,750	3,920
	4/6/2018	1,750	3,920
	7/3/2018	2,280	4,560
	10/4/2018	2,200	3,900
	1/8/2019	1,880	3,810
	4/10/2019	2,020	4,160

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-14			
	8/11/2015	**989**	**3,040**
	1/27/2016	**1,420**	**2,560**
	7/21/2016	**1,480**	**3,800**
	1/11/2017	**1,470**	**2,890**
	4/10/2017	**1,530**	**4,400**
	7/19/2017	**1,500**	**3,330**
	10/5/2017	**1,510**	**3,460**
	1/12/2018	**1,590**	**2,910**
	4/6/2018	**1,720**	**1,270**
	7/3/2018	**1,540**	**2,660**
	10/4/2018	**1,690**	**2,620**
	1/8/2019	**1,630**	**2,890**
	4/9/2019	**1,610**	**2,940**
MW-15			
	8/11/2015	**600**	**1,730**
	1/28/2016	**617**	**1,180**
	7/21/2016	**554**	**1,370**
	1/11/2017	**710**	**1,640**
	4/10/2017	**785**	**2,030**
	7/19/2017	**652**	**1,220**
	10/5/2017	**831**	**1,690**
	1/12/2018	**873**	**1,770**
	4/6/2018	**877**	**1,900**
	7/3/2018	**914**	**1,650**
	10/4/2018	**1,030**	**1,740**
	1/8/2019	**995**	**2,290**
	4/10/2019	**1,110**	**1,740**
MW-16			
	8/11/2015	**435**	**1,410**
	1/28/2016	**323**	**1,020**
	7/21/2016	195	776
	1/11/2017	**472**	**1,180**
	4/10/2017	**396**	**1,400**
	7/19/2017	**444**	**1,100**
	10/5/2017	**426**	**1,210**
	1/12/2018	**364**	**1,100**
	4/6/2018	**432**	**1,310**
	7/3/2018	**430**	**1,160**
	10/4/2018	**474**	**1,210**
	1/8/2019	**468**	**1,260**
	4/10/2019	**508**	**1,240**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-17			
	8/12/2015	**5,800**	**13,400**
	1/28/2016	**4,400**	823
	7/21/2016	**3,370**	**7,900**
	1/11/2017	**9,760**	**16,200**
	4/10/2017	**9,620**	**20,400**
	7/19/2017	**8,160**	**14,400**
	10/6/2017	**11,400**	**18,800**
	1/12/2018	**10,100**	**15,300**
	4/6/2018	**9,590**	**14,800**
	7/3/2018	**8,570**	**15,000**
	10/4/2018	**11,300**	**17,700**
	1/8/2019	**10,100**	**11,100**
	4/10/2019	**9,440**	**14,500**
MW-18			
	8/12/2015	**13,400**	**26,600**
	1/28/2016	**13,900**	**25,300**
	7/20/2016	**8,000**	**18,900**
	1/12/2017	**14,200**	**33,700**
	4/7/2017	**19,100**	**37,800**
	7/18/2017	**13,900**	**23,500**
	10/6/2017	**19,000**	**52,900**
	1/12/2018	**18,800**	**30,300**
	4/5/2018	**20,000**	**30,400**
	7/3/2018	**22,000**	**38,500**
	10/4/2018	**21,100**	**31,600**
	1/8/2019	**17,000**	**19,000**
	4/9/2019	**24,600**	**33,300**
MW-19			
	8/12/2015	**4,780**	**11,300**
	1/28/2016	**5,130**	**10,100**
	7/20/2016	**5,160**	**10,200**
	1/12/2017	**6,370**	**9,560**
	4/7/2017	**6,000**	**13,600**
	7/18/2017	**5,310**	**9,840**
	10/6/2017	**5,290**	**9,620**
	1/12/2018	**6,160**	**10,300**
	4/5/2018	**6,600**	**9,880**
	7/5/2018	**6,580**	**11,500**
	10/4/2018	**6,980**	**11,600**
	1/8/2019	**6,570**	**9,300**
	4/9/2019	**7,000**	**10,500**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-20			
	8/12/2015	**995**	**2,760**
	1/28/2016	**1,200**	**2,390**
	7/20/2016	**1,060**	**2,920**
	1/12/2017	**1,500**	**1,970**
	4/7/2017	**1,200**	**3,300**
	7/18/2017	**1,110**	**2,540**
	10/6/2017	**1,100**	**2,220**
	1/12/2018	**1,130**	**2,410**
	4/5/2018	**1,100**	**2,130**
	7/5/2018	**1,150**	**2,160**
	10/3/2018	**1,340**	**2,490**
	1/8/2019	**1,070**	**2,180**
	4/5/2019	**1,430**	**2,410**
MW-21			
	7/21/2016	**7,920**	**19,400**
	1/11/2017	**7,360**	**11,800**
	4/10/2017	**6,600**	**17,900**
	7/19/2017	**5,480**	**12,200**
	10/6/2017	**7,210**	**13,500**
	1/12/2018	**6,800**	**10,900**
	4/6/2018	**7,630**	**11,000**
	7/3/2018	**6,860**	**11,100**
	10/4/2018	**7,400**	**11,400**
	1/8/2019	**7,530**	**9,420**
	4/10/2019	**6,970**	**11,000**
MW-22			
	3/3/2017	**12,100**	**19,000**
	4/10/2017	**14,000**	**33,000**
	7/19/2017	**8,720**	**17,400**
	10/6/2017	**11,400**	**20,200**
	1/12/2018	**10,400**	**16,200**
	4/6/2018	**10,500**	**17,200**
	7/3/2018	**10,300**	**16,300**
	10/4/2018	**14,200**	**18,700**
	1/8/2019	**12,000**	**10,900**
	4/10/2019	**10,900**	**16,200**
MW-23			
	7/21/2016	**1,430**	**3,050**
	1/11/2017	**2,120**	**4,130**
	4/10/2017	**3,010**	**8,750**
	7/19/2017	**1,680**	**3,550**
	10/6/2017	**4,520**	**7,370**
	1/12/2018	**5,230**	**9,340**
	4/6/2018	**6,830**	**10,100**
	7/3/2018	**4,390**	**6,870**
	10/4/2018	**6,090**	**8,980**
	1/8/2019	**7,910**	**9,780**
	4/10/2019	**6,540**	**10,200**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-24			
	7/20/2016	3,720	8,910
	1/12/2017	4,740	8,690
	4/7/2017	4,520	11,200
	7/18/2017	3,880	8,600
	10/6/2017	3,930	8,500
	1/12/2018	4,060	8,170
	4/5/2018	3,980	7,080
	7/3/2018	4,140	8,210
	10/4/2018	4,850	8,870
	1/8/2019	3,320	1,020
	4/9/2019	4,370	8,250
MW-25			
	7/21/2016	560	1,510
	1/11/2017	24,400	29,700
	4/10/2017	23,100	49,600
	7/18/2017	18,800	32,800
	10/6/2017	18,300	33,200
	1/12/2018	20,900	31,400
	4/5/2018	22,400	32,800
	7/3/2018	23,600	37,600
	10/4/2018	26,500	39,000
	1/8/2019	23,500	29,800
	4/9/2019	24,100	33,100
MW-26			
	1/12/2017	1,220	2,840
	4/7/2017	1,190	3,160
	7/18/2017	1,140	3,060
	10/6/2017	1,120	2,570
	1/12/2018	1,160	2,860
	4/5/2018	1,230	2,730
	7/5/2018	1,210	2,810
	10/4/2018	1,340	2,750
	1/8/2019	1,190	2,740
	4/9/2019	1,340	2,830
MW-27			
	7/20/2016	1,340	3,080
	1/11/2017	2,400	4,160
	4/7/2017	2,380	4,520
	7/18/2017	2,110	4,150
	10/6/2017	2,280	4,610
	1/12/2018	2,260	4,220
	4/5/2018	2,400	4,250
	7/3/2018	2,510	4,790
	10/3/2018	3,030	4,700
	1/8/2019	2,420	4,110
	4/5/2019	2,830	4,490

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-28			
	1/10/2017	**917**	**2,520**
	4/7/2017	**1,090**	**2,650**
	7/17/2017	**1,190**	**2,730**
	10/6/2017	**1,240**	**3,270**
	1/12/2018	**1,470**	**1,280**
	4/5/2018	**1,540**	**2,660**
	7/6/2018	**1,610**	**2,540**
	10/3/2018	**1,760**	**3,020**
	1/7/2019	**1,510**	**3,050**
	4/5/2019	**851**	**3,260**
MW-29			
	1/10/2017	**354**	946
	4/7/2017	**386**	**1,160**
	7/17/2017	**393**	**1,060**
	10/6/2017	**374**	**1,100**
	1/12/2018	**397**	601
	4/5/2018	**396**	**1,100**
	7/6/2018	**397**	**860**
	10/3/2018	**409**	**1,070**
	1/7/2019	**359**	**7,270**
	4/5/2019	**508**	**1,100**
MW-30			
	7/19/2017	**2,360**	**4,540**
	10/6/2017	**2,420**	**5,270**
	1/12/2018	**2,350**	**4,160**
	4/6/2018	**2,240**	**1,310**
	7/3/2018	**2,280**	**3,650**
	10/4/2018	**2,550**	**3,820**
	1/8/2019	**2,460**	**3,860**
	4/10/2019	**2,400**	**4,160**
MW-31			
	7/18/2017	**7,980**	**13,600**
	10/6/2017	**8,540**	**16,600**
	1/12/2018	**10,700**	**16,400**
	4/5/2018	**11,700**	**17,700**
	7/3/2018	**12,100**	**19,800**
	10/4/2018	**12,800**	**19,500**
	1/8/2019	**11,100**	**10,300**
	4/5/2019	**11,800**	**16,200**
MW-32			
	4/10/2019	**373**	**1,170**
MW-33			
	4/10/2019	183	912
MW-34			
	4/10/2019	69.9	600

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-1			
	12/3/2015	266	**1,540**
	1/28/2016	283	**1,470**
	7/22/2016	294	**1,420**
	1/12/2017	**383**	**1,570**
	4/7/2017	291	**1,510**
	7/13/2017	287	**1,520**
	10/6/2017	271	**1,500**
	1/12/2018	271	933
	4/5/2018	263	**1,400**
	7/6/2018	275	**1,350**
	10/3/2018	279	**1,460**
	1/7/2019	256	**1,370**
	4/4/2019	330	**1,400**
NM-MW-2			
	12/3/2015	**640**	**2,620**
	1/28/2016	**658**	**1,920**
	7/22/2016	**638**	858
	1/12/2017	**790**	**1,770**
	4/7/2017	**656**	**1,590**
	7/13/2017	**653**	**1,340**
	10/6/2017	**650**	**1,410**
	1/12/2018	**639**	990
	4/5/2018	**610**	**1,210**
	7/6/2018	**679**	**1,160**
	10/3/2018	**674**	**1,270**
	1/7/2019	**616**	**1,210**
	4/4/2019	**736**	**1,230**
NM-MW-3			
	12/3/2015	**648**	**3,900**
	1/28/2016	**327**	**1,870**
	7/22/2016	121	524
	1/12/2017	224	581
	4/7/2017	161	564
	7/13/2017	186	592
	10/6/2017	276	626
	1/12/2018	221	501
	4/5/2018	180	601
	7/6/2018	220	625
	10/3/2018	246	708
	1/7/2019	**447**	**1,250**
	4/4/2019	259	653

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-4			
	12/3/2015	**739**	**2,960**
	1/28/2016	22.8	821
	7/22/2016	40.9	444
	1/12/2017	48.7	379
	4/7/2017	35.0	410
	7/13/2017	36.1	422
	10/6/2017	42.0	468
	1/12/2018	39	217
	4/5/2018	34	410
	7/6/2018	40.6	414
	10/3/2018	39.7	411
	1/7/2019	258.0	**1,240**
	4/4/2019	188	420
NM-MW-5			
	12/3/2015	DRY	DRY
	1/28/2016	144	**1,250**
	7/22/2016	129	**1,270**
	1/12/2017	182	**1,320**
	4/7/2017	145	**1,260**
	7/13/2017	147	**1,340**
	10/6/2017	144	**1,090**
	1/12/2018	133	893
	4/5/2018	134	**1,300**
	7/6/2018	140	**1,240**
	10/3/2018	138	**1,290**
	1/7/2019	142	**1,280**
	4/4/2019	175	**1,240**
NM-MW-6			
	12/2/2015	188	**1,240**
	1/28/2016	183	**1,060**
	7/22/2016	121	817
	1/12/2017	168	825
	4/7/2017	143	852
	7/13/2017	138	818
	10/6/2017	132	742
	1/12/2018	137	468
	4/5/2018	127	836
	7/6/2018	134	801
	10/3/2018	138	833
	1/7/2019	113	813
	4/4/2019	161	813

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-7			
	12/3/2015	**696**	**3,200**
	1/28/2016	**1,840**	**3,150**
	7/22/2016	**1,890**	**5,320**
	1/12/2017	**2,390**	**3,770**
	4/7/2017	**2,180**	**4,770**
	7/13/2017	**2,120**	**4,100**
	10/6/2017	**2,070**	**4,200**
	1/12/2018	**2,110**	**2,370**
	4/5/2018	**2,090**	**4,270**
	7/6/2018	**2,330**	**3,780**
	10/3/2018	**2,380**	**4,050**
	1/7/2019	**2,040**	**5,190**
	4/4/2019	**1,940**	**4,160**
NM-MW-8			
	3/3/2017	**4,870**	**9,740**
	4/7/2017	**4,870**	**12,800**
	7/13/2017	**5,010**	**9,040**
	10/4/2017	**5,000**	**10,900**
	1/12/2018	**5,260**	**5,240**
	4/5/2018	**5,110**	**9,160**
	7/6/2018	**5,960**	**9,620**
	10/3/2018	**6,260**	**11,000**
	1/7/2019	**4,630**	**8,040**
	4/4/2019	**6,690**	**10,100**
NM-MW-9			
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/17/2017	224	776
	10/4/2017	263	813
	1/12/2018	221	717
	4/5/2018	234	804
	7/6/2018	252	785
	10/3/2018	258	799
	1/7/2019	**2,620**	**4,160**
	4/5/2019	297	786
NM-MW-10			
	1/10/2017	**314**	**1,550**
	4/7/2017	**355**	**1,570**
	7/17/2017	**308**	**1,600**
	10/4/2017	**302**	**1,550**
	1/12/2018	**314**	**1,050**
	4/5/2018	**301**	**1,620**
	7/6/2018	**308**	**1,450**
	10/3/2018	**315**	**1,520**
	1/7/2019	290	**1,530**
	4/4/2019	**396**	**1,670**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
NM-MW-11			
	1/10/2017	190	**2,100**
	4/7/2017	158	**1,980**
	7/17/2017	135	**2,020**
	10/4/2017	154	**1,940**
	1/12/2018	155	**1,710**
	4/5/2018	699	**1,920**
	7/6/2018	143	**1,820**
	10/3/2018	152	**1,920**
	1/7/2019	154	**1,840**
	4/4/2019	185	**1,870**
NM-MW-12			
	3/3/2017	**760**	**1,460**
	4/7/2017	**725**	**2,230**
	7/17/2017	**726**	**1,540**
	10/4/2017	**643**	**1,590**
	1/12/2018	**663**	**1,470**
	4/5/2018	**656**	**1,430**
	7/6/2018	**665**	**1,250**
	10/3/2018	**668**	**1,390**
	1/7/2019	**596**	**1,300**
	4/4/2019	**739**	**1,310**
NM-MW-13			
	3/3/2017	183	**1,020**
	4/7/2017	192	**1,110**
	7/17/2017	185	**1,100**
	10/4/2017	183	**1,100**
	1/12/2018	188	965
	4/5/2018	180	**1,090**
	7/6/2018	184	**1,050**
	10/3/2018	185	**1,110**
	1/7/2019	165	**1,070**
	4/4/2019	225	**1,090**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Non-Remedial Wells			
DHU-FWS			
	01/06	**564**	**3,082**
	03/06	**581**	**3,181**
	6/14/2006	**553**	**3,020**
	9/12/2006	**584**	**2,650**
	12/6/2006	**636**	**3,070**
	7/30/2007	**646**	**3,010**
	1/21/2008	**637**	**3,140**
	7/7/2008	**546**	**3,050**
	1/26/2009	**610**	**3,040**
	8/21/2009	**580**	**3,000**
	2/17/2010	NA	**3,000**
	2/18/2010	**401**	NA
	8/16/2010	**771**	**3,060**
	2/10/2011	**577**	**2,840**
	8/2/2011	**612**	**2,960**
	1/31/2012	**866**	**2,910**
	7/19/2016	**629**	**2,810**
	1/11/2017	**670**	**3,060**
	4/10/2017	NS	NS
	7/14/2017	**587**	**3,020**
	10/9/2017	**565**	**2,990**
	1/12/2018	**615**	**2,820**
	4/5/2018	**572**	**2,640**
	7/5/2018	**593**	**2,710**
	10/3/2018	**593**	**2,830**
	1/7/2019	**611**	**2,900**
	4/5/2019	**658**	**3,120**
DHU-Office			
	04/06	**376**	**2,434**
DHU- Office (CHRM)			
	04/06	**382**	**2,460**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Livermore			
	01/06	NS	NS
	03/06	**6,946**	**11,381**
	6/14/2006	**8,320**	**14,300**
	9/12/2006	**7,400**	**12,000**
	12/7/2006	**5,750**	**12,000**
	2/28/2007	**5,770**	**11,200**
	7/30/2007	**5,910**	**12,600**
	7/7/2008	**5,280**	**9,340**
	1/29/2009	**4,670**	**8,200**
	8/25/2009	**4,630**	**8,260**
	2/18/2010	**3,700**	**7,560**
	8/20/2010	**4,390**	**7,920**
	2/15/2011	**4,400**	**7,430**
	8/5/2011	**4,230**	**7,230**
	2/3/2012	**3,310**	**6,790**
	8/7/2012	**3,730**	NA
	1/30/2013	**3,810**	**6,080**
	7/31/2013	**3,630**	**6,240**
	1/15/2014	**3,450**	**5,580**
	7/16/2014	**3,190**	**6,830**
	1/14/2015	**3,200**	**6,490**
	7/17/2015	**5,380**	**11,500**
	1/29/2016	**3,110**	**4,530**
	7/21/2016	**3,040**	**5,710**
	1/11/2017	**2,940**	**4,970**
	4/10/2017	NS	NS
	7/19/2017	**2,870**	**4,800**
	10/9/2017	**2,700**	**4,200**
	1/12/2018	**2,700**	**4,830**
	4/6/2018	**2,530**	**1,430**
	7/3/2018	**2,560**	**4,580**
	10/4/2018	**2,710**	**4,020**
	1/8/2019	**2,530**	**4,330**
	4/10/2019	**2,660**	**4,670**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Pure Water Tower			
	01/06	**6,976**	**12,456**
	03/06	NS	NS
	6/14/2006	**7,890**	**16,200**
	9/12/2006	**8,200**	**13,100**
	12/6/2006	**8,070**	**14,600**
	2/27/2007	**6,400**	**12,800**
	7/30/2007	**7,450**	**15,400**
	1/21/2008	**11,800**	**20,100**
	1/26/2009	**5,010**	**12,100**
	8/21/2009	**6,920**	**12,900**
	2/17/2010	NA	**19,800**
	2/18/2010	**9,880**	NA
	8/16/2010	**11,800**	**23,000**
	6/28/2011	**9,260**	**20,500**
	8/5/2011	**6,470**	**12,900**
	1/31/2012	**5,380**	**11,500**
Pure Water Well			
	01/06	NS	NS
	03/06	NS	NS
	6/14/2006	**5,820**	**11,200**
	9/12/2006	**6,260**	**13,900**
	12/6/2006	**2,790**	**5,680**
	7/23/2007	**4,060**	**9,500**
	1/21/2008	**2,560**	**4,590**
	7/7/2008	**1,030**	**2,320**
	1/26/2009	**4,390**	**10,400**
	8/21/2009	**5,240**	**9,840**
	2/17/2010	NA	**9,160**
	2/18/2010	**1,810**	NA
	2/10/2011	**5,070**	**12,900**
	8/5/2011	**5,430**	**12,900**
	8/21/2012	**4,650**	**10,200**
	1/30/2013	**4,880**	**8,800**
	10/25/2013	**5,340**	**11,100**
	1/13/2014	**4,830**	**10,700**
	7/17/2015	**754**	**1,890**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
RRR Ranch Windmill			
	01/06	NS	NS
	03/06	**1,693**	**3,527**
	6/14/2006	**1,760**	**3,640**
	1/28/2016	**1,430**	**2,760**
	7/22/2016	**1,460**	**3,940**
	1/12/2017	**1,760**	**3,030**
	4/10/2017	NS	NS
	7/17/2017	**1,570**	**3,300**
	10/9/2017	**2,620**	**3,870**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,620**	**3,110**
	7/6/2018	**1,670**	**3,030**
	10/3/2018	**1,660**	**3,000**
	1/7/2019	**1,290**	**2,950**
	4/4/2019	47.4	**3,110**
TRAC-4			
	01/06	**432**	**1,237**
	03/06	**581**	**3,181**
	6/14/2006	**402**	**1,270**
	9/11/2006	**428**	**1,310**
	12/7/2006	**456**	**1,300**
	2/27/2007	**435**	**1,240**
	7/30/2007	**493**	**1,320**
	1/21/2008	**421**	**1,220**
	7/7/2008	**461**	**1,290**
	1/26/2009	**546**	**1,320**
	8/21/2009	**471**	**1,330**
	2/17/2010	NA	**1,320**
	2/18/2010	**469**	NA
	2/15/2011	**549**	**1,340**
	8/4/2011	**455**	**1,250**
	1/31/2012	**445**	**1,150**
	8/2/2012	**433**	NA
	7/31/2013	**427**	**1,170**
	7/18/2014	**470**	**1,480**
	7/17/2015	**425**	**1,210**
	1/28/2016	**400**	**1,280**
	7/19/2016	NS	NS
	1/11/2017	**377**	**1,160**
	4/10/2017	NS	NS
	7/19/2017	**350**	**1,100**
	10/9/2017	**348**	**1,110**
	1/12/2018	**335**	**1,120**
	4/6/2018	**401**	**1,040**
	7/3/2018	**343**	**1,040**
	10/4/2018	**347**	**1,070**
	1/7/2019	**315**	**1,080**
	4/9/2019	**350**	**1,070**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
TRAC-8			
	01/06	**2,090**	**3,786**
	03/06	**2,090**	**3,801**
	6/14/2006	**1,740**	**3,830**
	9/11/2006	**1,990**	**4,630**
	12/6/2006	**2,130**	**4,600**
	2/27/2007	**2,220**	**4,630**
	7/30/2007	**2,220**	**5,110**
	1/21/2008	**2,100**	**3,580**
	7/7/2008	**2,010**	**4,170**
	1/26/2009	**2,250**	**4,280**
	8/21/2009	**2,260**	**4,140**
	3/8/2010	**2,240**	**4,430**
	8/16/2010	**2,360**	**4,350**
	2/10/2011	**2,880**	**4,750**
	8/4/2011	**2,450**	**5,170**
	1/31/2012	**2,120**	**4,600**
	8/2/2012	**1,600**	NA
	1/30/2013	**1,920**	**3,420**
	7/31/2013	**1,760**	**4,060**
	1/13/2014	**1,650**	**3,270**
	7/17/2014	**1,770**	**4,670**
	1/13/2015	**1,810**	**4,300**
	1/28/2016	NS	NS
	7/19/2016	**2,000**	**4,380**
Wilson Ranch			
	01/06	**2,243**	**3,578**
	03/06	NS	NS
	6/14/2006	**2,410**	**4,980**
	9/12/2006	**2,510**	**4,450**
	12/7/2006	**2,350**	**4,750**
	2/27/2007	**2,110**	**4,020**
	7/30/2007	**2,440**	**5,240**
	1/21/2008	**2,690**	**3,880**
	7/7/2008	**2,030**	**3,810**
	8/25/2009	**2,320**	**5,350**
	2/12/2016	**888**	**2,230**
	7/19/2016	**1,500**	**3,250**
	1/10/2017	**1,300**	**3,130**
	4/10/2017	NS	NS
	7/16/2017	**1,140**	**2,380**
	10/9/2017	**1,200**	**2,800**
	1/12/2018	**673**	**1,600**
	4/6/2018	**1,360**	**2,950**
	7/6/2018	**1,330**	**2,190**
	10/3/2018	**1,380**	**2,680**
	1/7/2019	**1,070**	**2,420**
	4/4/2019	**1,480**	**2,440**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Smith Residential Well			
	1/13/2017	**1,600**	**2,580**
	4/10/2017	NS	NS
	7/17/2017	**1,050**	**2,230**
	10/9/2017	**1,260**	**2,660**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,280**	**2,670**
	7/6/2018	**1,340**	**2,140**
	10/3/2018	**1,310**	**2,260**
	1/7/2019	**1,020**	**2,230**
	4/5/2019	**1,510**	**2,490**

Notes:
1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result exceeded the TCEQ Secondary Drinking Water Standard.

NS = Not Sampled
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix G
Data Validation Reports

Memorandum

January 30, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/22-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas January 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during January 2019. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control samples (LCS), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

An MS/MSD analysis was performed as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines". All percent recoveries and the RPD value were within the control limits, demonstrating acceptable analytical accuracy and precision.

The laboratory also performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for total dissolved solids (TDS). The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
43-K-1-MW-W-190109	43-K-1	Water	01/09/2019	10:20	X	X	DUP
45-E-3-MW-W-190109	45-E-3	Water	01/09/2019	10:35	X	X	
45-F-1-MW-W-190109	45-F-1	Water	01/09/2019	10:55	X	X	
45-FF-MW-W-190109	45-FF	Water	01/09/2019	11:10	X	X	
45-E-2-MW-W-190109	45-E-2	Water	01/09/2019	11:25	X	X	
45-E-1-MW-W-190109	45-E-1	Water	01/09/2019	11:40	X	X	
44-I-1-MW-W-190109	44-I-1	Water	01/09/2019	12:10	X	X	
44-J-1-MW-W-190109	44-J-1	Water	01/09/2019	12:20	X	X	
44-J-5-MW-W-190109	44-J-5	Water	01/09/2019	12:30	X	X	
44-J-3-MW-W-190109	44-J-3	Water	01/09/2019	12:40	X	X	
44-J-4-MW-W-190109	44-J-4	Water	01/09/2019	12:50	X	X	
44-J-2-MW-W-190109	44-J-2	Water	01/09/2019	13:05	X	X	
MW-8-W-190109	MW-8	Water	01/09/2019	13:45	X	X	
DHU-FWS-W-190109	DHU-FWS	Water	01/09/2019	13:55	X	X	
58-B-2-MW-W-190109	58-B-2	Water	01/09/2019	14:05	X	X	
58-B-1-MW-W-190109	58-B-2	Water	01/09/2019	14:15	X	X	
MW-9-W-190109	MW-9	Water	01/09/2019	14:35	X	X	
58-B-3-MW-W-190109	58-B-3	Water	01/09/2019	14:50	X	X	
MW-29-W-190109	MW-29	Water	01/09/2019	15:00	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-28-W-190109	MW-28	Water	01/09/2019	15:10	X	X	DUP
NM-MW-10-W-190109	NM-MW-10	Water	01/09/2019	15:35	X	X	DUP
NM-MW-12-W-190109	NM-MW-12	Water	01/09/2019	15:45	X	X	
Wilson Well-W-190109	WILSON RANCH WW	Water	01/09/2019	15:55	X	X	
Wilson Well-WD-190109	WILSON RANCH WW	Water	01/09/2019	15:55	X	X	Field duplicate of WILSON RANCH WW
Smith Well-W-190109	SMITH RESIDENCE	Water	01/09/2019	16:10	X	X	
NM-MW-8-W-190110	NM-MW-8	Water	01/10/2019	10:10	X	X	
NM-MW-4-W-190110	NM-MW-4	Water	01/10/2019	10:25	X	X	
RRR Ranch-W-190110	Ranch Windmill	Water	01/10/2019	10:35	X	X	
NM-MW-7-W-190110	NM-MW-7	Water	01/10/2019	10:45	X	X	
NM-MW-3-W-190110	NM-MW-3	Water	01/10/2019	10:55	X	X	
NM-MW-2-W-190110	NM-MW-2	Water	01/10/2019	11:05	X	X	
NM-MW-1-W-190110	NM-MW-1	Water	01/10/2019	11:10	X	X	
NM-MW-5-W-190110	NM-MW-5	Water	01/10/2019	11:20	X	X	
NM-MW-6-W-190110	NM-MW-6	Water	01/10/2019	11:30	X	X	MS/MSD
NM-MW-11-W-190110	NM-MW-11	Water	01/10/2019	11:40	X	X	
NM-MW-13-W-190110	NM-MW-13	Water	01/10/2019	12:00	X	X	
NM-MW-9-W-190110	NM-MW-9	Water	01/10/2019	12:25	X	X	
MW-27-W-190110	MW-27	Water	01/10/2019	12:35	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-20-W-190110	MW-20	Water	01/10/2019	12:45	X	X	
MW-10-W-190110	MW-10	Water	01/10/2019	12:55	X	X	DUP
MW-10-WD-190110	MW-10	Water	01/10/2019	12:55	X	X	Field duplicate of MW-10; DUP
MW-26-W-190110	MW-26	Water	01/10/2019	13:10	X	X	
MW-24-W-190110	MW-24	Water	01/10/2019	13:15	X	X	
MW-12-W-190110	MW-12	Water	01/10/2019	13:20	X	X	
MW-31-W-190110	MW-31	Water	01/10/2019	13:30	X	X	
MW-18-W-190110	MW-18	Water	01/10/2019	13:45	X	X	
MW-19-W-190110	MW-19	Water	01/10/2019	13:50	X	X	
MW-25-W-190110	MW-25	Water	01/10/2019	14:00	X	X	
MW-11-W-190110	MW-11	Water	01/10/2019	14:10	X	X	
MW-6-W-190110	MW-6	Water	01/10/2019	14:20	X	X	
MW-5-W-190110	MW-5	Water	01/10/2019	14:25	X	X	
MW-3-W-190110	MW-3	Water	01/10/2019	14:35	X	X	
Tract-4-W-190110	Trac4	Water	01/10/2019	14:45	X	X	
Tract-4-WD-190110	Trac4	Water	01/10/2019	14:45	X	X	Field duplicate of Trac4
MW-14-W-190110	MW-14	Water	01/10/2019	14:50	X	X	
MW-4-W-190110	MW-4	Water	01/10/2019	15:00	X	X	
MW-13-W-190110	MW-13	Water	01/10/2019	15:10	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-30-W-190110	MW-30	Water	01/10/2019	15:15	X	X	
Livermore-W-190110	Livermore	Water	01/10/2019	15:30	X	X	
MW-23-W-190110	MW-23	Water	01/10/2019	15:35	X	X	DUP
MW-22-W-190110	MW-22	Water	01/10/2019	15:40	X	X	DUP
MW-17-W-190110	MW-17	Water	01/10/2019	15:50	X	X	
MW-21-W-190110	MW-21	Water	01/10/2019	15:55	X	X	
MW-16-W-190110	MW-16	Water	01/10/2019	16:05	X	X	
MW-15-W-190110	MW-15	Water	01/10/2019	16:15	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		43-K-1	44-I-1	44-J-1	44-J-2	44-J-3	44-J-4
Sample Name:		43-K-1-MW-W-190109	44-I-1-MW-W-190109	44-J-1-MW-W-190109	44-J-2-MW-W-190109	44-J-3-MW-W-190109	44-J-4-MW-W-190109
Sample Date:		01/09/2019	01/09/2019	01/09/2019	01/09/2019	01/09/2019	01/09/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	7130	3320	4850	4930	4300	4470
TDS	mg/L	9640	4580	6190	7020	6330	6130

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		44-J-5	45-E-1	45-E-2	45-E-3	45-F-1	45-FF
Sample Name:		44-J-5-MW-W-190109	45-E-1-MW-W-190109	45-E-2-MW-W-190109	45-E-3-MW-W-190109	45-F-1-MW-W-190109	45-FF-MW-W-190109
Sample Date:		01/09/2019	01/09/2019	01/09/2019	01/09/2019	01/09/2019	01/09/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	3970	2680	1660	3760	901	5080
TDS	mg/L	5690	3650	3040	5240	1840	6690

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		58-B-2	58-B-2	58-B-3	DHU-FWS	Livermore	MW-3
Sample Name:		58-B-1-MW-W-190109	58-B-2-MW-W-190109	58-B-3-MW-W-190109	DHU-FWS-W-190109	Livermore-W-190110	MW-3-W-190110
Sample Date:		01/09/2019	01/09/2019	01/09/2019	01/09/2019	01/10/2019	01/10/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	5240	4190	900	611	2530	194
TDS	mg/L	8120	5470	2070	2900	4330	619

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		MW-4	MW-5	MW-6	MW-8	MW-9	MW-10	MW-10
Sample Name:		MW-4-W-190110	MW-5-W-190110	MW-6-W-190110	MW-8-W-190109	MW-9-W-190109	MW-10-W-190110	MW-10-WD-190110
Sample Date:		01/10/2019	01/10/2019	01/10/2019	01/09/2019	01/09/2019	01/10/2019	01/10/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	35.7	244	372	852	195	5130	5560
TDS	mg/L	426	1050	1510	2160	807	7050	7130

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17
Sample Name:		MW-11-W-190110	MW-12-W-190110	MW-13-W-190110	MW-14-W-190110	MW-15-W-190110	MW-16-W-190110	MW-17-W-190110
Sample Date:		01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	8240	13900	1880	1630	995	468	10100
TDS	mg/L	9730	14000	3810	2890	2290	1260	11100

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
Sample Name:		MW-18-W-190110	MW-19-W-190110	MW-20-W-190110	MW-21-W-190110	MW-22-W-190110	MW-23-W-190110	MW-24-W-190110
Sample Date:		01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	17000	6570	1070	7530	12000	7910	359
TDS	mg/L	19000	9300	2180	9420	10900	9780	1020

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31
Sample Name:		MW-25-W-190110	MW-26-W-190110	MW-27-W-190110	MW-28-W-190109	MW-29-W-190109	MW-30-W-190110	MW-31-W-190110
Sample Date:		01/10/2019	01/10/2019	01/10/2019	01/09/2019	01/09/2019	01/10/2019	01/10/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	23500	1190	2420	1510	3320	2460	11100
TDS	mg/L	29800	2740	4110	3050	7270	3860	10300

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5	NM-MW-6	NM-MW-7
Sample Name:		NM-MW-1-W-190110	NM-MW-2-W-190110	NM-MW-3-W-190110	NM-MW-4-W-190110	NM-MW-5-W-190110	NM-MW-6-W-190110	NM-MW-7-W-190110
Sample Date:		01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019	01/10/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	256	616	447	258	142	113	2040
TDS	mg/L	1370	1210	1250	1240	1280	813	5190

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		NM-MW-8	NM-MW-9	NM-MW-10	NM-MW-11	NM-MW-12	NM-MW-13
Sample Name:		NM-MW-8-W-190110	NM-MW-9-W-190110	NM-MW-10-W-190109	NM-MW-11-W-190110	NM-MW-12-W-190109	NM-MW-13-W-190110
Sample Date:		01/10/2019	01/10/2019	01/09/2019	01/10/2019	01/09/2019	01/10/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	4630	2620	290	154	596	165
TDS	mg/L	8040	4160	1530	1840	1300	1070

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Location ID:		Ranch Windmill	SMITH RESIDENCE	Trac4	Trac4	WILSON RANCH WW	WILSON RANCH WW
Sample Name:		RRR Ranch-W-190110	Smith Well-W-190109	Tract-4-W-190110	Tract-4-WD-190110	Wilson Well-W-190109	Wilson Well-WD-190109
Sample Date:		01/10/2019	01/09/2019	01/10/2019	01/10/2019	01/09/2019	01/09/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	1290	1020	315	314	1070	1020
TDS	mg/L	2950	2230	1080	1080	2420	2420

Notes:

TDS - Total Dissolved Solids

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

May 7, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/23-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas April 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during April 2019. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control samples (LCS), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation with the following exceptions:

i) One method blank yielded a low level detection for chloride analysis. All associated sample results were significantly greater than the method blank detection and were not affected. No further actions were required.

ii) Two method blanks yielded low level detections for total dissolved solids (TDS). All associated sample results were significantly greater than the method blank detections and were not affected. No further actions were required.

4. Laboratory Control Sample Analyses

LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

i) All three MS/MSDs were reported outlying recoveries. If only the MS or MSD recovery was outside of control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD. No further action was required.

The laboratory also performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for TDS. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-7-W-190404	NM-MW-7	Water	04/04/2019	10:00	X	X	
RRR Ranch-W-190404	Ranch Windmill	Water	04/04/2019	10:25	X	X	MS/MSD
NM-MW-4-W-190404	NM-MW-4	Water	04/04/2019	10:45	X	X	DUP
NM-MW-8-W-190404	NM-MW-8	Water	04/04/2019	11:00	X	X	
NM-MW-3-W-190404	NM-MW-3	Water	04/04/2019	11:15	X	X	
NM-MW-2-W-190404	NM-MW-2	Water	04/04/2019	11:30	X	X	
NM-MW-1-W-190404	NM-MW-1	Water	04/04/2019	11:45	X	X	
NM-MW-5-W-190404	NM-MW-5	Water	04/04/2019	11:55	X	X	
NM-MW-6-W-190404	NM-MW-6	Water	04/04/2019	12:10	X	X	
NM-MW-11-W-190404	NM-MW-11	Water	04/04/2019	12:40	X	X	
NM-MW-11-WD-190404	NM-MW-11	Water	04/04/2019	12:40	X	X	Field duplicate of NM-MW-11
NM-MW-13-W-190404	NM-MW-13	Water	04/04/2019	13:15	X	X	MS/MSD
NM-MW-10-W-190404	NM-MW-10	Water	04/04/2019	13:48	X	X	DUP
NM-MW-12-W-190404	NM-MW-12	Water	04/04/2019	14:10	X	X	
Wilson Ranch-W-190404	WILSON RANCH WW	Water	04/04/2019	14:20	X	X	DUP
NM-MW-9-W-190504	NM-MW-9	Water	04/05/2019	10:00	X	X	
Smith-W-190504	SMITH RESIDENCE	Water	04/05/2019	10:15	X	X	
Smith-WD-190504	SMITH RESIDENCE	Water	04/05/2019	10:15	X	X	Field duplicate of SMITH RESIDENCE

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-29-W-190504	MW-29	Water	04/05/2019	10:40	X	X	
MW-28-W-190504	MW-28	Water	04/05/2019	10:50	X	X	
MW-9-W-190504	MW-9	Water	04/05/2019	11:15	X	X	
MW-8-W-190504	MW-8	Water	04/05/2019	11:30	X	X	MS/MSD
DHU-FWS-W-190504	DHU-FWS	Water	04/05/2019	11:40	X	X	
MW-27-W-190504	MW-27	Water	04/05/2019	11:50	X	X	
MW-20-W-190504	MW-20	Water	04/05/2019	12:00	X	X	
MW-10-W-190504	MW-10	Water	04/05/2019	12:15	X	X	
MW-10-WD-190504	MW-10	Water	04/05/2019	12:15	X	X	Field duplciate of MW-10
MW-31-W-190504	MW-31	Water	04/05/2019	12:30	X	X	
MW-19-W-190904	MW-19	Water	04/09/2019	09:45	X	X	DUP
MW-18-W-190904	MW-18	Water	04/09/2019	09:55	X	X	
MW-24-W-190904	MW-24	Water	04/09/2019	10:05	X	X	
MW-26-W-190904	MW-26	Water	04/09/2019	10:15	X	X	
MW-25-W-190904	MW-25	Water	04/09/2019	10:30	X	X	
MW-11-W-190904	MW-11	Water	04/09/2019	10:45	X	X	
MW-6-W-190904	MW-6	Water	04/09/2019	11:00	X	X	
MW-5-W-190904	MW-5	Water	04/09/2019	11:15	X	X	
MW-3-W-190904	MW-3	Water	04/09/2019	11:35	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
Tract 4-W-190904	Trac4	Water	04/09/2019	11:50	X	X	MS/MSD
MW-14-W-190904	MW-14	Water	04/09/2019	12:10	X	X	DUP
MW-4-W-190904	MW-4	Water	04/09/2019	12:20	X	X	
Livermore-W-191004	Livermore	Water	04/10/2019	09:45	X	X	
MW-30-W-191004	MW-30	Water	04/10/2019	10:00	X	X	
MW-13-W-191004	MW-13	Water	04/10/2019	10:05	X	X	
MW-15-W-191004	MW-15	Water	04/10/2019	10:30	X	X	
MW-16-W-191004	MW-16	Water	04/10/2019	10:40	X	X	
MW-21-W-191004	MW-21	Water	04/10/2019	10:50	X	X	
MW-17-W-191004	MW-17	Water	04/10/2019	11:00	X	X	
MW-23-W-191004	MW-23	Water	04/10/2019	11:10	X	X	
MW-22-W-191004	MW-22	Water	04/10/2019	11:20	X	X	DUP
MW-12-W-191004	MW-12	Water	04/10/2019	11:35	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		DHU-FWS	Livermore	MW-3	MW-4	MW-5	MW-6
Sample Name:		**DHU-FWS-W-190504**	**Livermore-W-191004**	**MW-3-W-190904**	**MW-4-W-190904**	**MW-5-W-190904**	**MW-6-W-190904**
Sample Date:		**04/05/2019**	**04/10/2019**	**04/09/2019**	**04/09/2019**	**04/09/2019**	**04/09/2019**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	658	2660	636	377	300	418
Total dissolved solids (TDS)	mg/L	3120	4670	1370	877	257	1500

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		MW-8	MW-9	MW-10	MW-10	MW-11	MW-12
Sample Name:		MW-8-W-190504	MW-9-W-190504	MW-10-W-190504	MW-10-WD-190504	MW-11-W-190904	MW-12-W-191004
Sample Date:		04/05/2019	04/05/2019	04/05/2019	04/05/2019	04/09/2019	04/10/2019
					Duplicate		
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	1060	1200	5760	5780	7840	14100
Total dissolved solids (TDS)	mg/L	2460	4230	8100	8190	11700	21700

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		MW-13	MW-14	MW-15	MW-16	MW-17	MW-18
Sample Name:		MW-13-W-191004	MW-14-W-190904	MW-15-W-191004	MW-16-W-191004	MW-17-W-191004	MW-18-W-190904
Sample Date:		04/10/2019	04/09/2019	04/10/2019	04/10/2019	04/10/2019	04/09/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	2020	1610	1110	508	9440	24600
Total dissolved solids (TDS)	mg/L	4160	2940	1740	1240	14500	33300

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
Sample Name:		MW-19-W-190904	MW-20-W-190504	MW-21-W-191004	MW-22-W-191004	MW-23-W-191004	MW-24-W-190904
Sample Date:		04/09/2019	04/05/2019	04/10/2019	04/10/2019	04/10/2019	04/09/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	7000	1430	6970	10900	6540	4370
Total dissolved solids (TDS)	mg/L	10500	2410	11000	16200	10200	8250

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		MW-25	MW-26	MW-27	MW-28	MW-29	MW-30
Sample Name:		MW-25-W-190904	MW-26-W-190904	MW-27-W-190504	MW-28-W-190504	MW-29-W-190504	MW-30-W-191004
Sample Date:		04/09/2019	04/09/2019	04/05/2019	04/05/2019	04/05/2019	04/10/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	24100	1340	2830	851	508	2400
Total dissolved solids (TDS)	mg/L	33100	2830	4490	3260	1100	4160

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		**MW-31**	**NM-MW-1**	**NM-MW-2**	**NM-MW-3**	**NM-MW-4**	**NM-MW-5**
Sample Name:		**MW-31-W-190504**	**NM-MW-1-W-190404**	**NM-MW-2-W-190404**	**NM-MW-3-W-190404**	**NM-MW-4-W-190404**	**NM-MW-5-W-190404**
Sample Date:		**04/05/2019**	**04/04/2019**	**04/04/2019**	**04/04/2019**	**04/04/2019**	**04/04/2019**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	11800	330	736	259	188	175
Total dissolved solids (TDS)	mg/L	16200	1400	1230	653	420	1240

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		NM-MW-6	NM-MW-7	NM-MW-8	NM-MW-9	NM-MW-10	NM-MW-11
Sample Name:		**NM-MW-6-W-190404**	**NM-MW-7-W-190404**	**NM-MW-8-W-190404**	**NM-MW-9-W-190504**	**NM-MW-10-W-190404**	**NM-MW-11-W-190404**
Sample Date:		**04/04/2019**	**04/04/2019**	**04/04/2019**	**04/05/2019**	**04/04/2019**	**04/04/2019**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	161	1940	6690	297	396	185
Total dissolved solids (TDS)	mg/L	813	4160	10100	786	1670	1870

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		**NM-MW-11**	**NM-MW-12**	**NM-MW-13**	**Ranch Windmill**
Sample Name:		**NM-MW-11-WD-190404**	**NM-MW-12-W-190404**	**NM-MW-13-W-190404**	**RRR Ranch-W-190404**
Sample Date:		**04/04/2019**	**04/04/2019**	**04/04/2019**	**04/04/2019**
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	185	739	225	47.4
Total dissolved solids (TDS)	mg/L	1920	1310	1090	3110

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:		**SMITH RESIDENCE**	**SMITH RESIDENCE**	**Trac4**	**WILSON RANCH WW**
Sample Name:		**Smith-W-190504**	**Smith-WD-190504**	**Tract 4-W-190904**	**Wilson Ranch-W-190404**
Sample Date:		**04/05/2019**	**04/05/2019**	**04/09/2019**	**04/04/2019**
			Duplicate		
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	1510	1490	350	1480
Total dissolved solids (TDS)	mg/L	2490	2470	1070	2440

Notes:

TDS - Total Dissolved Solids

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

May 9, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/24-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling (MW-32, MW-33, and MW-34) Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas April 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during April 2019. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control samples (LCS), matrix spikes/matrix spike duplicates (MS/MSD), and laboratory duplicates.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

The laboratory performed MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for TDS. The duplicate results were evaluated per the "Guidelines".

The laboratory performed duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

8. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling (MW-32, MW-33, and MW-34)
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

					Analysis/Parameters	
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**
MW-34-W-191004	MW-34	Water	04/10/2019	11:55	X	X
MW-33-W-191004	MW-33	Water	04/10/2019	12:05	X	X
MW-32-W-191004	MW-32	Water	04/10/2019	12:15	X	X

Notes:

TDS - Total Dissolved Solids

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling (MW-32, MW-33, and MW-34)
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Location ID:	MW-32	MW-33	MW-34
Sample Name:	MW-32-W-191004	MW-33-W-191004	MW-34-W-191004
Sample Date:	04/10/2019	04/10/2019	04/10/2019

Parameters	Unit			
General Chemistry				
Chloride	mg/L	373	183	69.9
TDS	mg/L	1170	912	600

Notes:

TDS - Total Dissolved Solids

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling (MW-32, MW-33, and MW-34)
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM



about GHD

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

Nicholas G. Casten
Nick.Casten@GHD.com
225.292.9007

Brittany White
Brittany.White@GHD.com
225.292.9007

www.ghd.com

Received by OCD: 3/23/2023 11:36:17 AM

Accepted - 05/18/2023

NV

Adriane Gifford
Project Manager

Upstream Business Unit
Environmental Management Company
1500 Louisiana Street
Room 38108
Houston, Texas 77002
Tel 832-854-5620
agifford@chevron.com

March 31, 2020

Mr. Bradford Billings
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: 2019 Semi-Annual Groundwater Monitoring Report (July to December 2019)
Chevron Dollarhide Groundwater Remediation Site
Andrews County, Texas
RRC OCP No. 08-1048
NMOCD RP No. 1R-3944

Dear Mr. Billings:

Chevron Environmental Management Company (CEMC) submits herein to the New Mexico Oil Conservation Division (OCD) the *2019 Semi-Annual Groundwater Monitoring Report (July to December 2019)* for the Chevron Dollarhide Oil Field Unit located in Andrews County, Texas (Site). This report was prepared by GHD Services Inc. (GHD), on behalf of CEMC, to document groundwater monitoring activities performed at the Site during the above referenced reporting period.

If you have any questions regarding this submittal, please contact me at (832) 854-5620 or Nick Casten of GHD at (225) 296-6513.

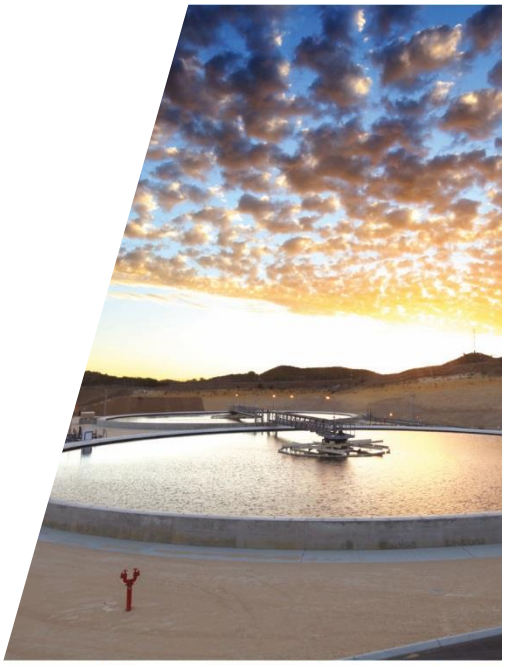
Respectfully,
Chevron Environmental Management Company on behalf of Chevron U.S.A. Inc.

Adriane Gifford
Project Manager

Encl.

cc: Kent Stallings – RRC Site Remediation Section
Nick Casten - GHD

Released to Imaging: 11/21/2023 10:32:34 AM



2019 Semi-Annual Groundwater Report (July to December 2019)

Dollarhide Oil Field Unit
Andrews County, Texas
RRC OCP No. 08 1048
OCD RP No. 1R 3944

Chevron Environmental Management Company



Table of Contents

1. Introduction 1
2. Background 1
3. Regulatory Framework 2
4. Groundwater Recovery 3
5. 2019 Groundwater Investigation 3
6. Groundwater Monitoring 3
   6.1 Potentiometric Conditions 4
   6.2 Groundwater Sampling 4
   6.3 Analytical Results 4
   6.4 Quality Assurance/Quality Control 5
7. Conclusions and Path Forward 5

Figure Index

Figure 1 Site Vicinity Map
Figure 2 Site Details Map
Figure 3 July 2019 Groundwater Potentiometric Elevations and Contours
Figure 4 October 2019 Groundwater Potentiometric Elevations and Contours
Figure 5 July 2019 Groundwater Chloride Concentrations and Isopleths
Figure 6 October 2019 Groundwater Chloride Concentrations and Isopleths
Figure 7 July 2019 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 8 October 2019 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths

Table Index

Table 1 Groundwater Well Designations
Table 2 July 2019 Groundwater Elevation Measurements
Table 3 October 2019 Groundwater Elevation Measurements
Table 4 2019 Groundwater Analytical Results Summary

Appendix Index

Appendix A Historical Groundwater Elevations
Appendix B Groundwater Sample Analytical Laboratory Reports

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix Index

Appendix C Historical Groundwater Analytical Data
Appendix D Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

1. Introduction

GHD Services Inc. (GHD), on behalf of Chevron Environmental Management Company (CEMC), submits herein to the Railroad Commission of Texas (RRC) the second *Semi-Annual Groundwater Monitoring Report (July to December 2019)* for the Dollarhide Oil Field Unit located in Andrews County, Texas (Site). The latitude/longitude coordinates for the Site are 32º 08' 45.60" N and 103º 03' 20.12" W, and a vicinity map showing the Site location is included as Figure 1. This report presents a summary and evaluation of the annual groundwater monitoring data collected in the second half of 2019.

2. Background

It is believed that historical operations at the Site have contributed to elevated chloride concentrations in groundwater in the Ogallala Aquifer. The Site was discovered as an oil and gas production field in 1945 and, over the years, was owned and operated and/or leased by various companies that disposed of excess produced water and drilling fluids into pits. The use of pits for water disposal ceased in 1967, and the Site operators began using an injection system for disposal. In 1971, the first evidence of elevated chloride concentrations in groundwater was identified in Tract 26, and then in 1974 in Tract 45. Groundwater assessment was initiated in 1974, and groundwater recovery was initiated in 1994 by Union Oil Company of California (Unocal).

Representatives of Unocal and the RRC participated in a meeting on June 2, 1994, to discuss the installation of 24 recovery wells located in Texas along the Texas and New Mexico State Line to remove chloride-impacted groundwater from the Ogallala aquifer. Unocal received RRC approval of the recovery system in written correspondence on July 7, 1994. Since 1994, two additional recovery wells were installed, totaling 26 recovery wells that recovered groundwater from the Site. The recovered groundwater was pumped into two on-Site injection wells for oil reservoir pressure maintenance. Chevron Corporation purchased Unocal in August 2005. Since that time, Chevron U.S.A., Inc. (Chevron) continued to operate the groundwater recovery system until the system shutdown in November 2017, with concurrence from the RRC and New Mexico Oil Conservation Division (OCD).

Former Pits

Prior to the 1970s, it was an accepted practice in oil field operations to store produced water in pits adjacent to well locations. After livestock water wells in the vicinity of the Site began exhibiting elevated chloride concentrations, soil borings were installed in all former pit locations to assess possible chlorides in soil leaching to groundwater. Historical aerial photographs were reviewed to assess potential source areas. A 1955 aerial photograph identified the presence of approximately 84 former produced water (brine) pits adjacent to Site well locations. A large-scale evaporation pit located to the northwest of the existing gas plant that had been utilized to store mixed brine was identified as a potential source area. Soil samples were collected from various depths within the former pits and were submitted for laboratory analysis of chlorides. Former pit locations with soil chloride concentrations less than 700 parts per million (ppm) were determined not to be potential

Released to Imaging: 11/21/2023 10:32:34 AM

source areas and were left in place. The former pit locations with soil chloride concentrations greater than 700 ppm were determined to be potential source areas, and Unocal capped the pits with a geosynthetic clay liner to prevent any further leaching of chlorides.

Light Non-Aqueous Phase Liquid

During a groundwater sampling event in January 2000, dissolved hydrocarbon constituents and light non-aqueous phase liquid (LNAPL) were detected in recovery well 44-J-WW during a routine groundwater sampling event. The LNAPL exhibited elevated concentrations of hydrocarbons in the C_6-C_{12} range, indicative of natural gas liquids. A north-south trending underground pipeline that contains hydrocarbon products, operated by another company (not Chevron), is located within 100 feet of monitor well 44-J-WW. Soil investigations were conducted in 2000 by Unocal and 2011 by CEMC, to determine the source area of the release; however, no hydrocarbon impacts were detected in soil. On November 5, 2010, LNAPL was discovered in two additional recovery wells, 44-I-WW and 44-II-WW, during routine operation and maintenance. Due to the presence of LNAPL, these three wells remained inactive through November 2017, when the groundwater recovery system was shut down to prevent the introduction of LNAPL into the groundwater recovery system. The LNAPL identified in these three wells (44-J-WW, 44-I-WW, and 44-II-WW) is not located near any Chevron assets that contain hydrocarbons, and the LNAPL is believed to be associated with other third-party pipelines in the vicinity. LNAPL investigation efforts have been summarized in previous reports that have been submitted to the RRC.

3. Regulatory Framework

The RRC has regulatory jurisdiction over oil and gas production operations in the State of Texas. CEMC has been working under the guidance of the RRC to address the groundwater chloride impacts as a result of historic operations at the Site. Under the RRC, the Site is regulated under Title 16 of the Texas Administrative Code (TAC) Chapter 3 (relating to the Oil and Gas Division) Rule §3.8(b) (Statewide Rule 8 Water Protection).

On October 13, 2015, representatives of the OCD and CEMC participated in a meeting at the OCD office in Santa Fe, New Mexico, to discuss the installation of groundwater monitor wells on CEMC-owned property in New Mexico to delineate and to further assess the impacts to the Site's groundwater with respect to chlorides and total dissolved solids (TDS). Subsequent to the meeting, CEMC submitted a Release Notification and Corrective Action (C-141) Form in a written correspondence on October 28, 2015, per OCD's request, in order to establish a file for the Site. Following the 2015 meeting with the OCD, CEMC completed groundwater investigations in 2015, 2016, and 2017 that included installation of monitor wells in Texas and New Mexico to further delineate the plume boundary.

On May 16, 2017, representatives from CEMC and GHD met with the RRC and the OCD at their respective offices. The meeting was held via teleconference to provide a project status update to both regulatory agencies and to ensure that the regulatory agencies involved in the project are in alignment with the path forward for the Site. During the joint regulatory meeting, the current and future use of the recovery system was discussed. CEMC informed the RRC and OCD of its intentions to temporarily shut down the groundwater recovery system in the fourth quarter of 2017,

Released to Imaging: 11/21/2023 10:32:34 AM

for at least one calendar year, to evaluate non-pumping aquifer and plume conditions. The RRC and OCD agreed with this approach and the groundwater recovery system was shut down in November 2017.

4. Groundwater Recovery

In the fourth quarter of 2018, representatives from CEMC and GHD met with the RRC (November 28, 2018) and the OCD (December 13, 2018) at their respective offices. The purpose of these meetings was to provide a project status update to both regulatory agencies and discuss the path forward for the Site. During both 2018 regulatory meetings, CEMC informed the RRC and the OCD of its intentions to permanently shut down the groundwater recovery system. The RRC and OCD both agreed with this approach, and the groundwater recovery system will remain permanently shut down.

5. 2019 Groundwater Investigation

A preliminary groundwater model and future developments were presented to both agencies during the 2018 regulatory meetings. This development includes refining the groundwater model after completing an additional groundwater investigation in 2019. CEMC submitted a work plan in February 2019 proposing to install eleven new monitor wells. The RRC reviewed the work plan and approved of the proposed activities with a request for semi-annual report submittals. The objective of the investigation is to establish long-term plume management monitoring points in Texas and further delineate the downgradient groundwater plume boundary in both states. Additionally, the newly installed wells in New Mexico will be used to identify bedrock elevations across the Dollarhide field and the monument draw, saturated thickness of the Ogallala aquifer, and groundwater flow conditions. The data from the analysis of the new wells will be used to fill in gaps identified in the Conceptual Site Model.

The proposed 2019 investigation activities were split into two events by state, Texas monitor well installation and New Mexico monitor well installation. Three monitor wells were installed in Texas in April 2019. Due to delays with access agreements and permitting, the monitor well installation in New Mexico was delayed until the first quarter of 2020. The data collected from the New Mexico well installation event will be included in the January through June 2020 Semi-Annual Groundwater Monitoring Report.

6. Groundwater Monitoring

Groundwater sampling was initiated in 2008 at the Site on a semi-annual basis. In 2017, CEMC initiated quarterly groundwater sampling to provide concentration data trends. Currently, groundwater monitoring at the Site is being performed on a quarterly basis, with events conducted in January, April, July, and October. The groundwater monitoring system consists of 61 monitor wells and 8 non-remedial wells screened in the Ogallala Aquifer approximately 120 feet below ground surface. Groundwater well designations are shown on Figure 2 and listed in Table 1. During

Released to Imaging: 11/21/2023 10:32:34 AM

the January and July events, all viable wells in the groundwater monitoring system are sampled. During the voluntary April and October events, only the wells installed during the 2015, 2016, 2017, and 2019 groundwater investigations are sampled to develop concentration trends over time. The groundwater data collected in July and October 2019 are discussed herein.

6.1 Potentiometric Conditions

Prior to sampling during each event, depth-to-groundwater measurements were collected at each well with an oil/water interface probe, with an accuracy of 0.01 foot, to determine the groundwater elevation in each well. Groundwater potentiometric elevations and contours for the July and October 2019 events are shown on Figures 3 and 4, respectively. The measurements indicate that the groundwater flow direction is generally to the southwest which is consistent with previous events. A summary of the depth-to-groundwater measurements and the corresponding groundwater elevations is included in Tables 2 and 3. Historical groundwater elevations are included in Appendix A.

6.2 Groundwater Sampling

During the July and October 2019 sampling events, investigative groundwater samples were collected via no-purge grab sampling techniques. The groundwater samples were collected directly from the screened interval of each well using a HydraSleeve. The HydraSleeve is deployed during the gauging event to allow the well to return to equilibrium prior to sampling. Groundwater samples were collected in laboratory-supplied containers, preserved on ice, and transported to Xenco Laboratories located in Midland, Texas, following proper chain-of-custody procedures. All groundwater samples were submitted for analysis of chloride by United States Environmental Protection Agency (EPA) Method 300/300.1 and TDS by EPA Method SM2540C. The results received from Xenco Laboratories for both the July and October 2019 sampling events are reported herein.

During the October 2019 event, a set of split groundwater samples (thirteen samples) were collected in addition to the aforementioned investigative groundwater samples in order to verify sampling and analytical precision. The split samples were collected as a result of inconsistencies that appeared in the chloride and TDS concentrations, and per the suggestion made in the RRC's comments dated August, 23, 2019, regarding the *2018 Annual Groundwater Monitoring Report* and *2019 Semi-Annual Groundwater Monitoring Report*. The split sample set was collected following proper procedures, and shipped to Pace Analytical National Center for Testing & Innovation (Pace Analytical) located in Mt. Juliet, Tennessee.

6.3 Analytical Results

Groundwater sample analytical results were compared to the Texas Commission of Environmental Quality (TCEQ) Secondary Drinking Water Standards and Secondary Constituent levels for chlorides (300 milligrams per liter [mg/L]) and TDS (1,000 mg/L). The groundwater sample analytical results from the July and October 2019 events are listed in Tables 4. The groundwater chloride and TDS concentrations and isopleths for the 2019 sampling events are shown on Figures 5 through 8, and the analytical laboratory reports are included in Appendix B. The

Released to Imaging: 11/21/2023 10:32:34 AM

concentrations of chlorides and TDS are generally consistent with historical events. A table of historical analytical results is included in Appendix C.

6.4 Quality Assurance/Quality Control

During the July 2019 sampling event, six duplicate samples were collected for chloride and TDS to confirm sample quality and reproducibility. No significant deviations were encountered in the sample results for duplicate constituents.

During the October 2019 sampling event, six duplicate samples were collected for chloride and TDS and sent to Xenco Laboratory to confirm sample quality and reproducibility, and two duplicate samples were collected and sent to Pace Analytical. No significant deviations were encountered for duplicate constituents in the sample results received from Xenco Laboratory. In the sample results received from Pace Analytical, one duplicate TDS analysis demonstrated variation in the results with a relative percent difference (RPD) of 13.2.

A split sample comparison was conducted for the investigative samples submitted to Xenco Laboratory and the split sample set submitted to Pace Analytical during the October 2019 event. The results from the comparison were within acceptable agreement, with the exception of one TDS result having a RPD greater than fifty percent.

All certified groundwater laboratory reports received during the July and October 2019 sampling events were reviewed by a GHD analytical chemist for laboratory and field method quality assurance/quality control (QA/QC). All laboratory reports were approved, and the associated data validation reports issued by GHD are included in Appendix D. The data validation report containing the sample comparison review and approval is also included in the data validation reports in Appendix D.

7. Conclusions and Path Forward

The results of the 2019 groundwater monitoring events will be used to update the groundwater model and to continue development for the strategy and path forward for the Site.

Due to access agreements and issuance of applicable well permits from the New Mexico Office of the State of Engineer, the monitor wells that were planned for installation in New Mexico in the fourth quarter of 2019 were further delayed until the first quarter of 2020. Data will be collected from these wells starting in 2020 to further define groundwater model parameters, identify bedrock elevations across the Dollarhide field and the monument draw, and define saturated thickness of the Ogallala aquifer and groundwater flow conditions.

CEMC will continue conducting quarterly monitoring only for the monitor wells recently installed in 2015, 2016, 2017, and 2019. Monitor wells installed prior to 2015 will continue to be sampled semi-annually.

Released to Imaging: 11/21/2023 10:32:34 AM

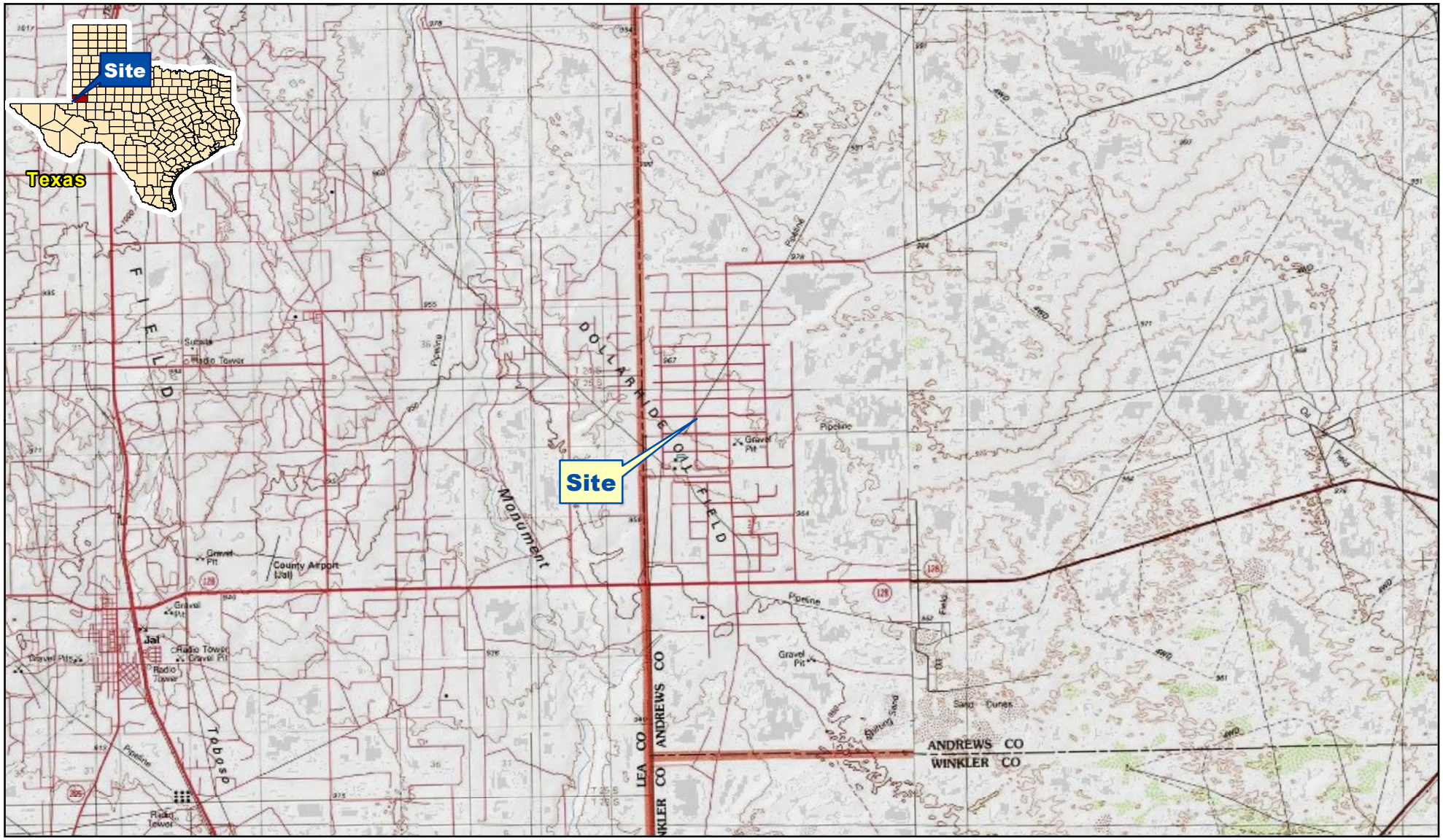
Should you have any questions regarding this submittal, please contact Nick G. Casten of GHD at (225) 296-6513 or Adriane Gifford of CEMC at (832) 854-5620.

All of which is Respectfully Submitted

GHD,

Nicholas G. Casten

Brian L. Carter, PhD
Texas PG No. 10319



Source: USGS 7.5 Minute Topographic Maps.

0 1 2
Miles

Coordinate System:
NAD 1983 UTM Zone 13N

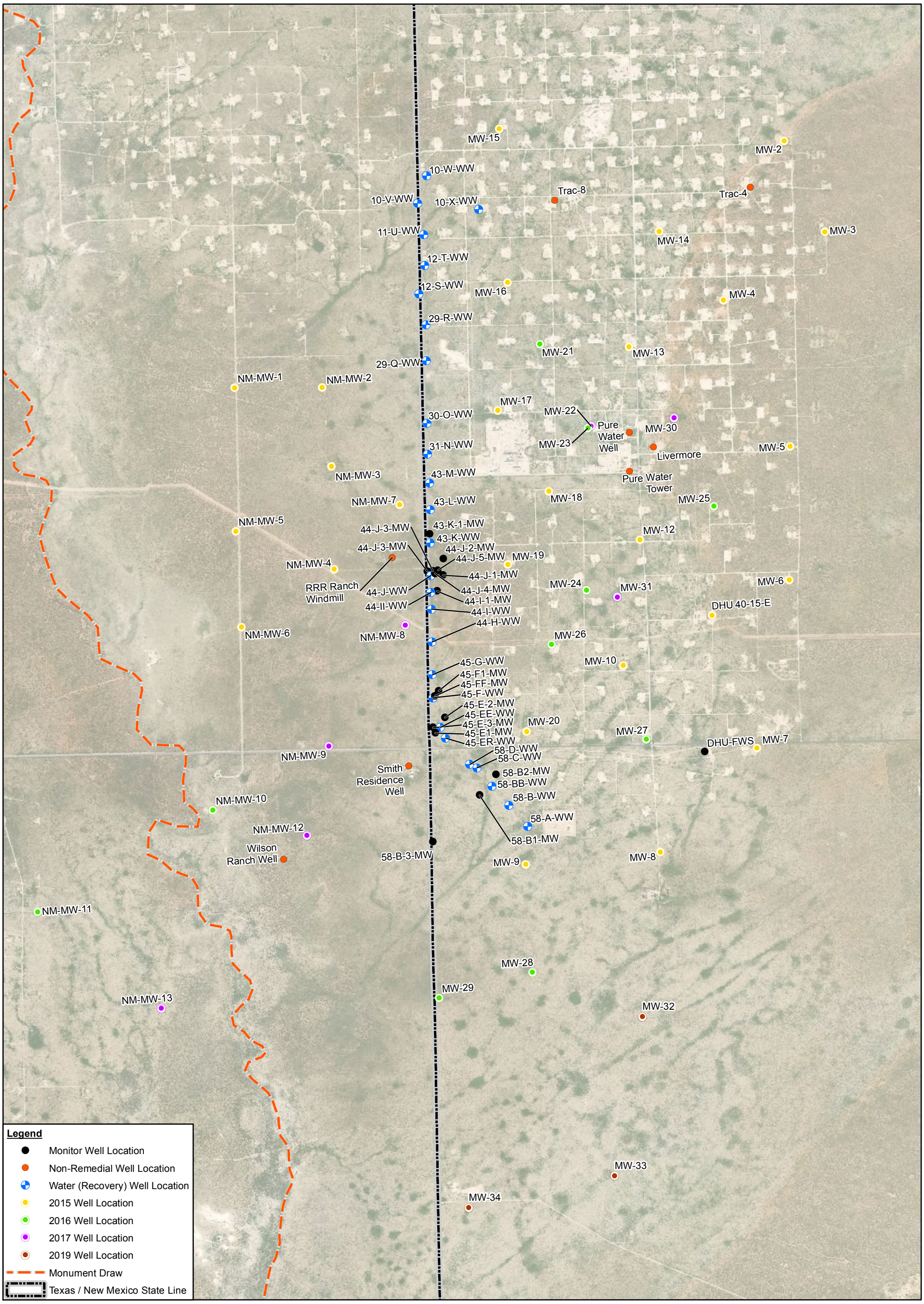
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
CHEVRON DOLLARHIDE UNIT

055270
Jun 20, 2019

SITE VICINITY MAP

FIGURE 1

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR007.mxd



Source: ESRI World Imagery Basemap Service, Digital Globe: 10/11/2016

0 1,350 2,700
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

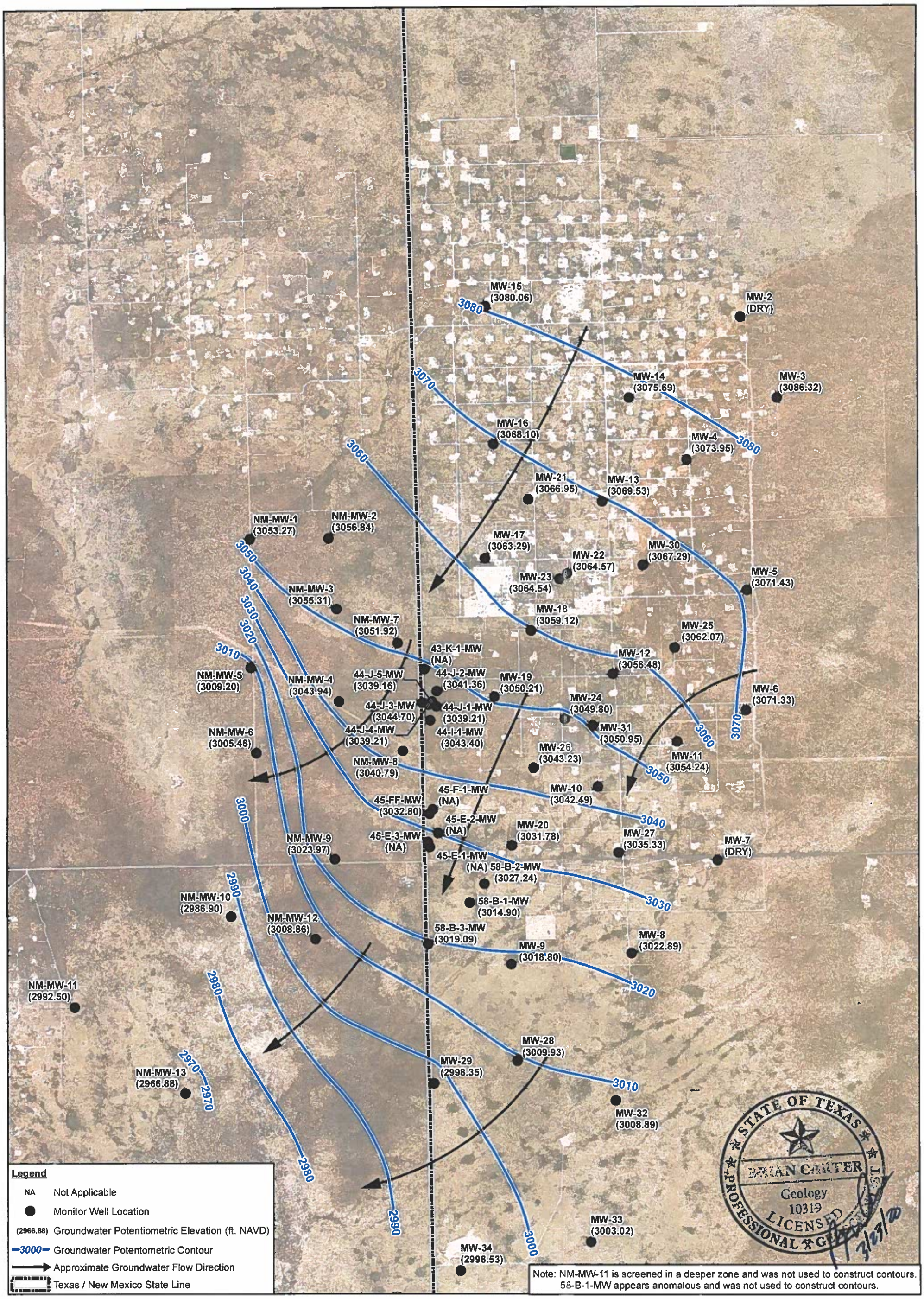
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Jun 20, 2019

SITE DETAILS MAP

FIGURE 2

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\016\055270-00(016)GIS-BR008.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

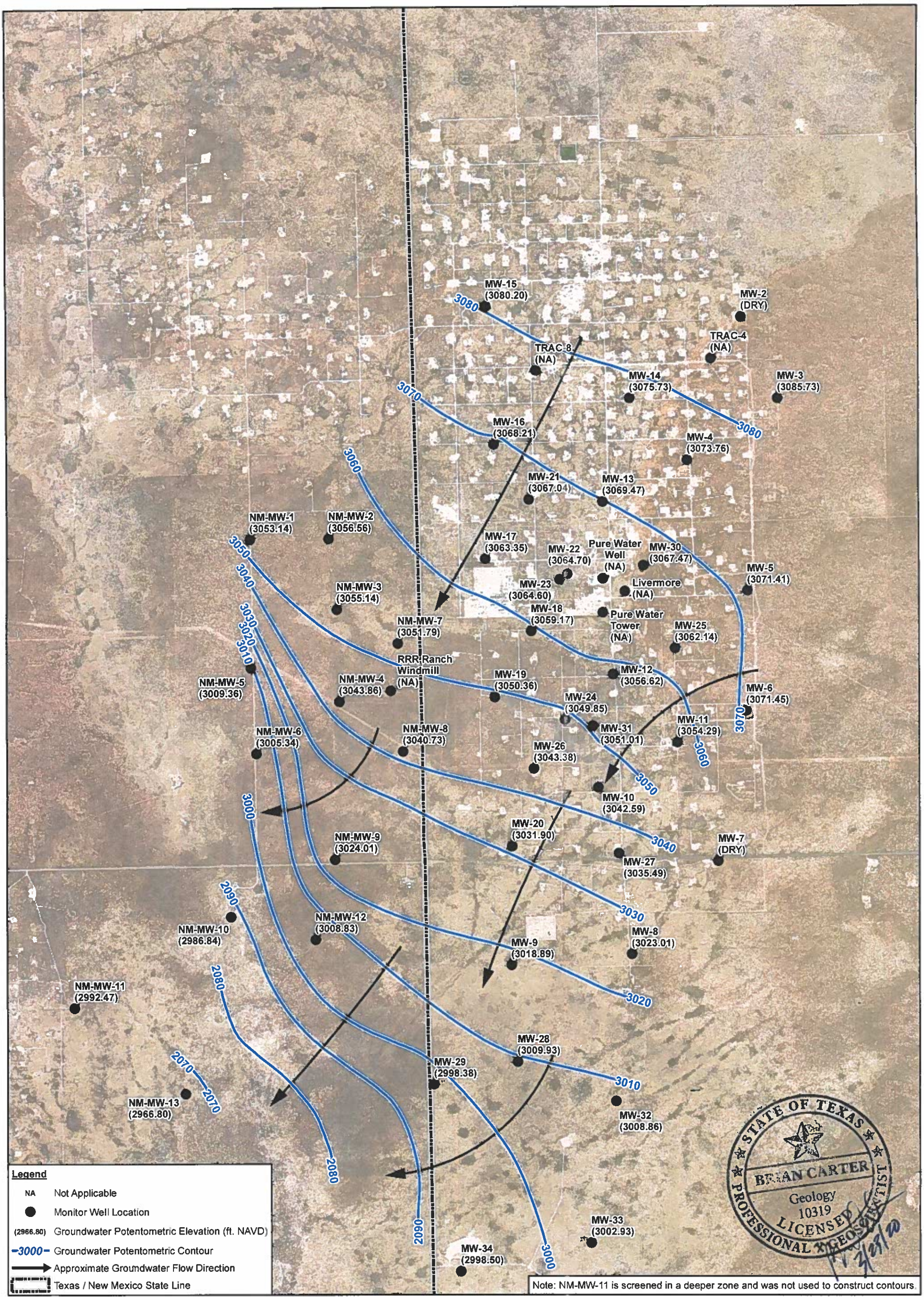
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JULY 2019 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Mar 18, 2020

FIGURE 3

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\RPT017\055270-00(RPT017)GIS-BR001.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

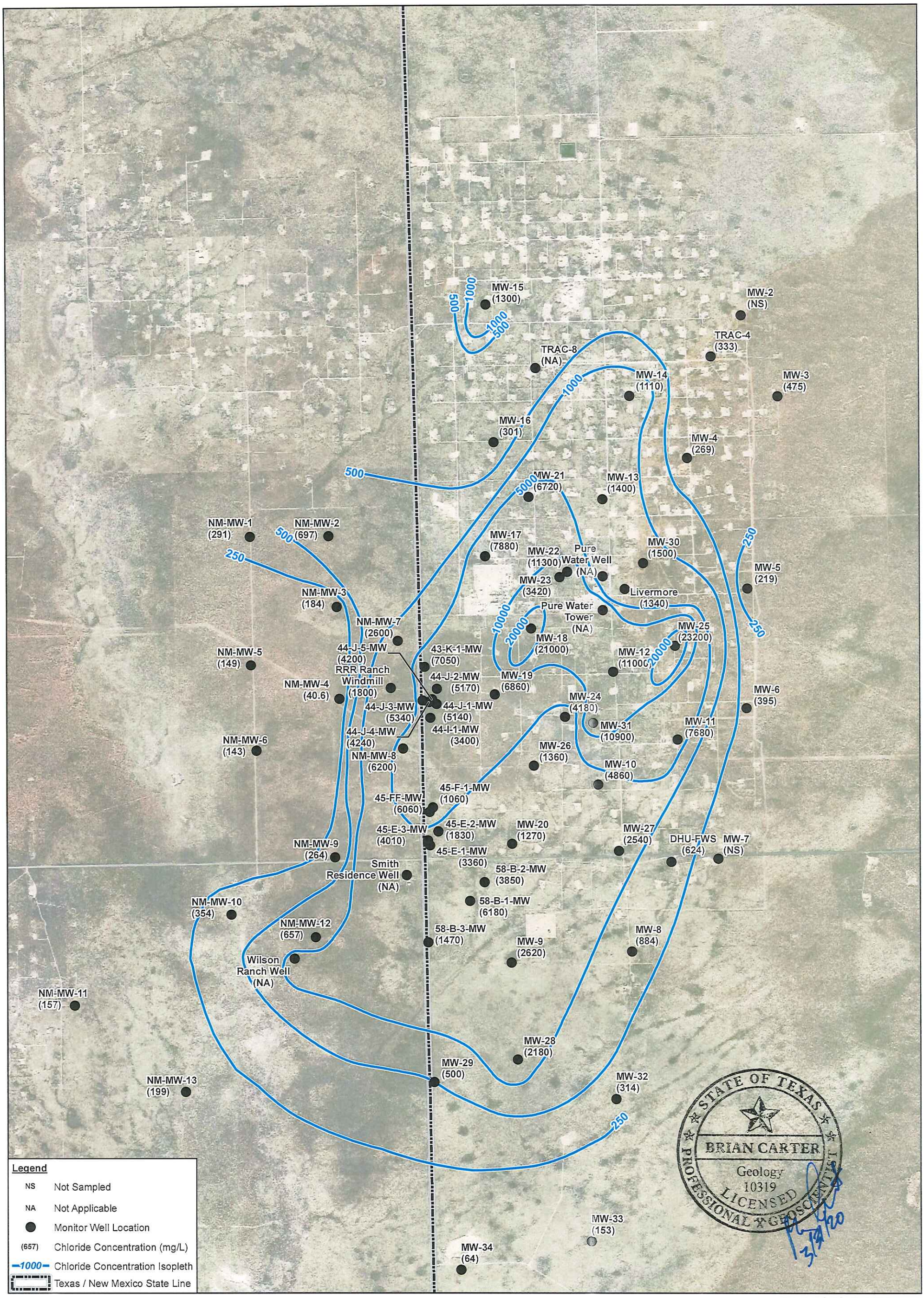
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

OCTOBER 2019 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Mar 20, 2020

FIGURE 4

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\RPT017\055270-00(RPT017)GIS-BR002_1.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet
Coordinate System:
NAD 1983 UTM Zone 13N

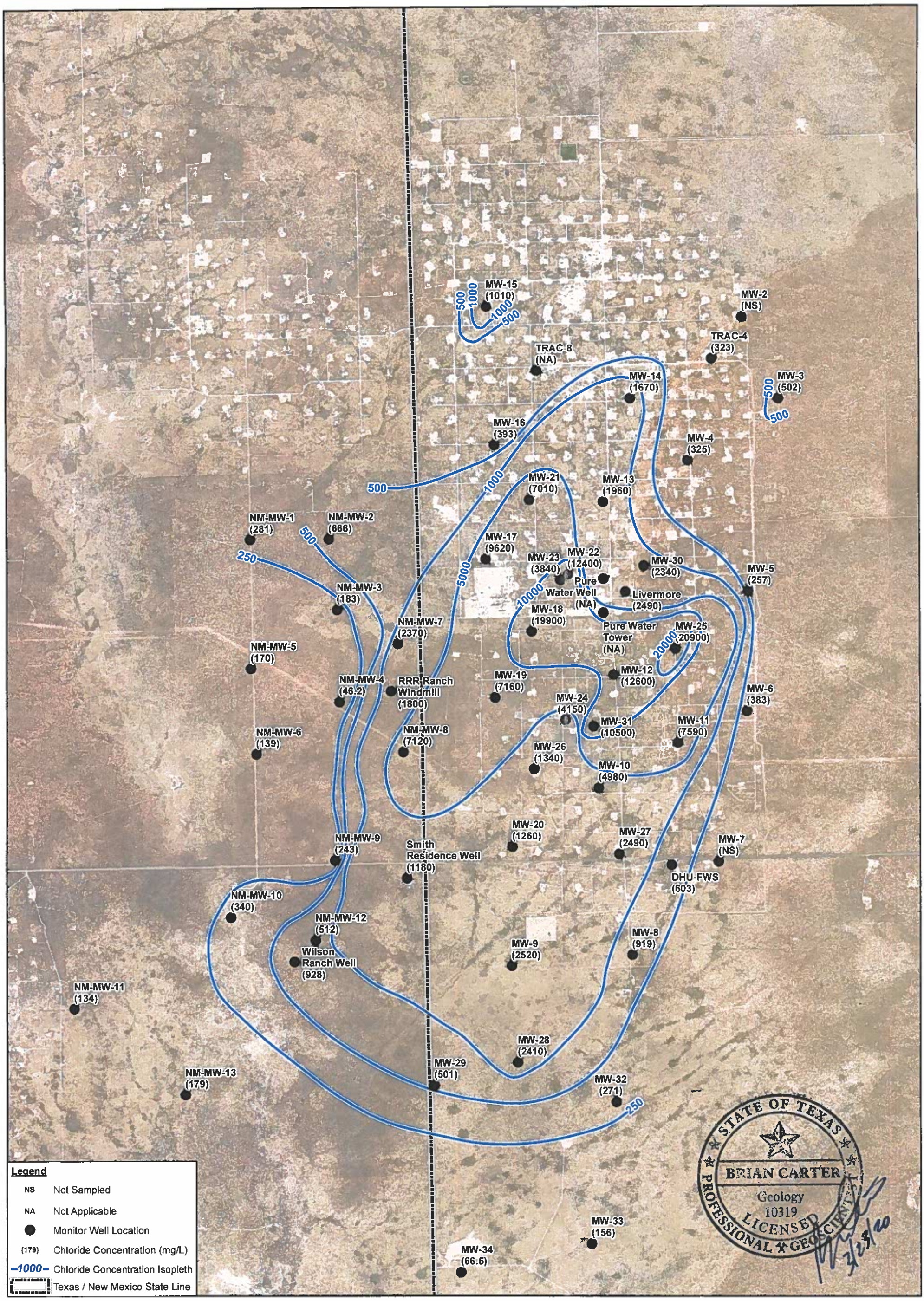
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JULY 2019 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Mar 31, 2020

FIGURE 5

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\RPT017\055270-00(RPT017)GIS-BR003.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet
Coordinate System: NAD 1983 UTM Zone 13N

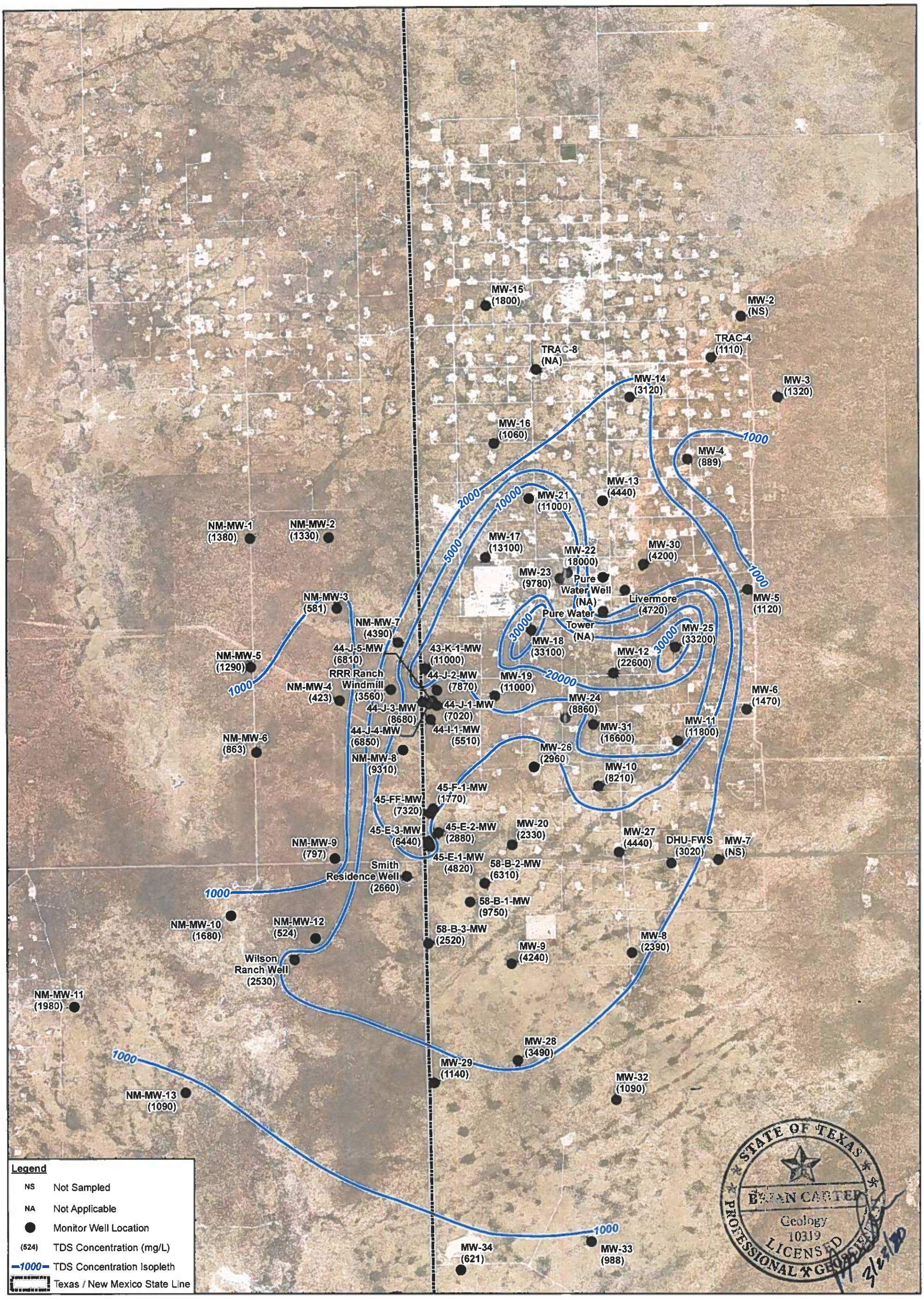
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

OCTOBER 2019 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Mar 16, 2020

FIGURE 6

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\MISC011\055270-00(MISC011)GIS-BR005.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

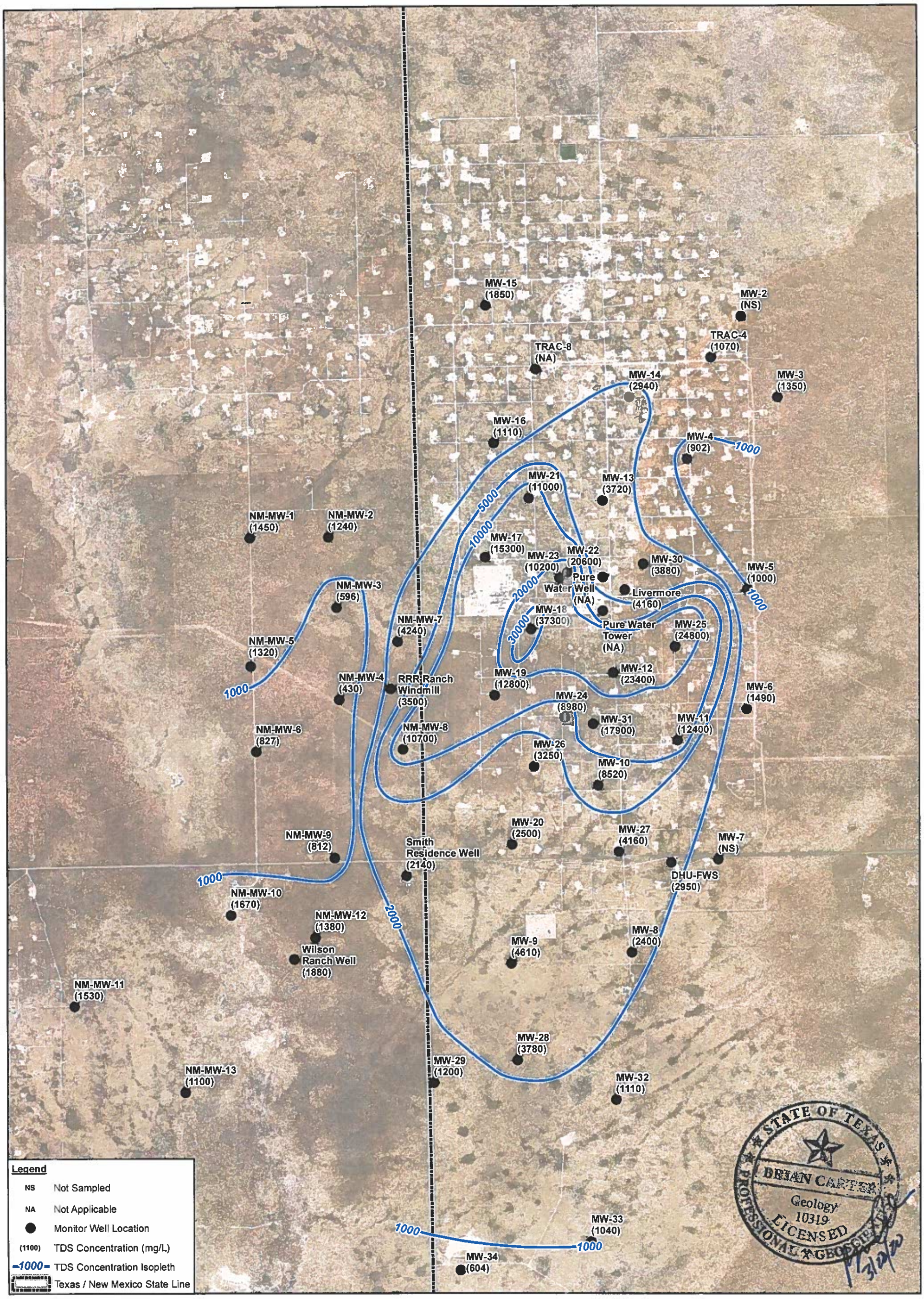
JULY 2019 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

055270
Mar 20, 2020

FIGURE 7

GIS File: I:\GIS\G\S\Projects\55000s\55270\Layouts\RPT017\055270-00(RPT017)GIS-BR004.mxd

Released to Imaging: 11/21/2023 10:32:34 AM



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Mar 16, 2020

OCTOBER 2019 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

FIGURE 8

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Recovery Wells	10-V-WW
	10-W-WW
	10-X-WW
	11-U-WW
	12-S-WW
	12-T-WW
	29-Q-WW
	29-R-WW
	30-O-WW
	31-N-WW
	43-K-WW
	43-L-WW
	43-M-WW
	44-H-WW
	44-I-WW
	44-II-WW
	44-J-WW
	45-EE-WW
	45-ER-WW
	45-F-WW
	45-G-WW
	58-A-WW
	58-B-WW
	58-BB-WW
	58-C-WW
	58-D-WW
Monitor Wells	43-K-1-MW
	44-I-1-MW
	44-J-1-MW
	44-J-2-MW
	44-J-3-MW
	44-J-4-MW
	44-J-5-MW
	45-E-1-MW
	45-E-2-MW
	45-E-3-MW
	45-F-1-MW
	45-FF-MW
	58-B-1-MW
	58-B-2-MW
	58-B-3-MW
	MW-2(1)
	MW-3(1)
	MW-4(1)
	MW-5(1)
	MW-6(1)
	MW-7(1)

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Monitor Wells	MW-8(1)
	MW-9(1)
	MW-10(1)
	MW-11(1)
	MW-12(1)
	MW-13(1)
	MW-14(1)
	MW-15(1)
	MW-16(1)
	MW-17(1)
	MW-18(1)
	MW-19(1)
	MW-20(1)
	MW-21(1)
	MW-22(1)
	MW-23(1)
	MW-24(1)
	MW-25(1)
	MW-26(1)
	MW-27(1)
	MW-28(1)
	MW-29(1)
	MW-30(1)
	MW-31(1)
	MW-32(1)
	MW-33(1)
	MW-34(1)
	NM-MW-1(1)
	NM-MW-2(1)
	NM-MW-3(1)
	NM-MW-4(1)
	NM-MW-5(1)
	NM-MW-6(1)
	NM-MW-7(1)
	NM-MW-8(1)
	NM-MW-9(1)
	NM-MW-10(1)
	NM-MW-11(1)
	NM-MW-12(1)
	NM-MW-13(1)

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Non-Remedial Wells	Livermore
	Pure Water Tower
	Pure Water Well
	RRR Ranch Windmill
	TRAC-4
	TRAC-8
	Smith Residence
	Wilson Ranch Well

Note:
(1) Indicates monitor wells installed in 2015, 2016, 2017, and 2019 that are voluntarily sampled quarterly.

Table 2

July 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
43-K-1-MW	NM	94.16	NA
44-I-1-MW	3,138.93	95.53	3,043.40
44-J-1-MW	3,134.50	95.29	3,039.21
44-J-2-MW	3,135.30	93.94	3,041.36
44-J-3-MW	3,140.19	95.49	3,044.70
44-J-4-MW	3,133.69	94.48	3,039.21
44-J-5-MW	3,134.75	95.59	3,039.16
45-E-1-MW	NM	87.66	NA
45-E-2-MW	NM	85.11	NA
45-E-3-MW	NM	88.13	NA
45-F-1-MW	NM	89.49	NA
45-FF-MW	3,122.70	89.90	3,032.80
58-B-1-MW	3,100.59	85.69	3,014.90
58-B-2-MW	3,111.91	84.67	3,027.24
58-B-3-MW	3,108.46	89.37	3,019.09
MW-2	3,204.56	DRY	3,094.00
MW-3	3,199.51	113.19	3,086.32
MW-4	3,189.69	115.74	3,073.95
MW-5	3,174.43	103.00	3,071.43
MW-6	3,165.25	93.92	3,071.33
MW-7	3,132.14	DRY	3,132.14
MW-8	3,107.34	84.45	3,022.89
MW-9	3,103.82	85.02	3,018.80
MW-10	3,139.71	97.22	3,042.49
MW-11	3,156.65	102.41	3,054.24
MW-12	3,151.33	94.85	3,056.48
MW-13	3,168.41	98.88	3,069.53
MW-14	3,182.69	107.00	3,075.69
MW-15	3,184.55	104.49	3,080.06
MW-16	3,167.93	99.83	3,068.10
MW-17	3,147.44	84.15	3,063.29
MW-18	3,155.01	95.89	3,059.12
MW-19	3,149.90	99.69	3,050.21
MW-20	3,120.09	88.31	3,031.78
MW-21	3,159.65	92.70	3,066.95
MW-22	3,152.50	87.93	3,064.57

Table 2

July 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-23	3,151.66	87.12	3,064.54
MW-24	3,144.88	95.08	3,049.80
MW-25	3,165.45	103.38	3,062.07
MW-26	3,136.99	93.76	3,043.23
MW-27	3,126.99	91.66	3,035.33
MW-28	3,093.86	83.93	3,009.93
MW-29	3,098.60	100.25	2,998.35
MW-30	3,170.95	103.66	3,067.29
MW-31	3,145.41	94.46	3,050.95
MW-32	3,090.28	81.39	3,008.89
MW-33	3,080.02	77.00	3,003.02
MW-34	3,069.95	71.42	2,998.53
NM-MW-1	3,124.90	71.58	3,053.27
NM-MW-2	3,152.86	96.02	3,056.84
NM-MW-3	3,146.86	91.55	3,055.31
NM-MW-4	3,154.21	110.27	3,043.94
NM-MW-5	3,109.14	99.94	3,009.20
NM-MW-6	3,093.23	87.77	3,005.46
NM-MW-7	3,147.67	95.75	3,051.92
NM-MW-8	3,138.62	97.83	3,040.79
NM-MW-9	3,118.18	94.21	3,023.97
NM-MW-10	3,066.32	79.42	2,986.90
NM-MW-11	3,075.44	82.94	2,992.50
NM-MW-12	3,105.47	96.61	3,008.86
NM-MW-13	3,051.17	84.29	2,966.88
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.82	NA
Livermore	NM	95.40	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 3

October 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
MW-2	3,204.56	DRY	3,204.56
MW-3	3,199.51	113.78	3,085.73
MW-4	3,189.69	115.93	3,073.76
MW-5	3,174.43	103.02	3,071.41
MW-6	3,165.25	93.80	3,071.45
MW-7	3,132.14	DRY	3,132.14
MW-8	3,107.34	84.33	3,023.01
MW-9	3,103.82	84.93	3,018.89
MW-10	3,139.71	97.12	3,042.59
MW-11	3,156.65	102.36	3,054.29
MW-12	3,151.33	94.71	3,056.62
MW-13	3,168.41	98.94	3,069.47
MW-14	3,182.69	106.96	3,075.73
MW-15	3,184.55	104.35	3,080.20
MW-16	3,167.93	99.72	3,068.21
MW-17	3,147.44	84.09	3,063.35
MW-18	3,155.01	95.84	3,059.17
MW-19	3,149.90	99.54	3,050.36
MW-20	3,120.09	88.19	3,031.90
MW-21	3,159.65	92.61	3,067.04
MW-22	3,152.50	87.80	3,064.70
MW-23	3,151.66	87.06	3,064.60
MW-24	3,144.88	95.03	3,049.85
MW-25	3,165.45	103.31	3,062.14
MW-26	3,136.99	93.61	3,043.38
MW-27	3,126.99	91.50	3,035.49
MW-28	3,093.86	83.93	3,009.93
MW-29	3,098.60	100.22	2,998.38
MW-30	3,170.95	103.48	3,067.47
MW-31	3,145.41	94.40	3,051.01

Table 3

October 2019 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-32	3,090.28	81.42	3,008.86
MW-33	3,080.02	77.09	3,002.93
MW-34	3,069.95	71.45	2,998.50
NM-MW-1	3,124.90	71.76	3,053.14
NM-MW-2	3,152.86	96.30	3,056.56
NM-MW-3	3,146.86	91.72	3,055.14
NM-MW-4	3,154.21	110.35	3,043.86
NM-MW-5	3,109.14	99.78	3,009.36
NM-MW-6	3,093.23	87.89	3,005.34
NM-MW-7	3,147.67	95.88	3,051.79
NM-MW-8	3,138.62	97.89	3,040.73
NM-MW-9	3,118.18	94.17	3,024.01
NM-MW-10	3,066.32	79.48	2,986.84
NM-MW-11	3,075.44	82.97	2,992.47
NM-MW-12	3,105.47	96.64	3,008.83
NM-MW-13	3,051.17	84.37	2,966.80
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.91	NA
Livermore	NM	95.28	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 4

2nd Half 2019 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	July		October	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**
Monitor Wells				
43-K-1-MW	**7,050**	**11,000**	NS	NS
44-I-1-MW	**3,400**	**5,510**	NS	NS
44-J-1-MW	**5,140**	**7,020**	NS	NS
44-J-2-MW	**5,170**	**7,870**	NS	NS
44-J-3-MW	**5,340**	**8,680**	NS	NS
44-J-4-MW	**4,240**	**6,850**	NS	NS
44-J-5-MW	**4,200**	**6,810**	NS	NS
45-E-1-MW	**3,360**	**4,820**	NS	NS
45-E-2-MW	**1,830**	**2,880**	NS	NS
45-E-3-MW	**4,010**	**6,440**	NS	NS
45-F-1-MW	**1,060**	**1,770**	NS	NS
45-FF-MW	**6,060**	**7,320**	NS	NS
58-B-1-MW	**6,180**	**9,750**	NS	NS
58-B-2-MW	**3,850**	**6,310**	NS	NS
58-B-3-MW	**1,470**	**2,520**	NS	NS
MW-2	NS	NS	NS	NS
MW-3	**475**	**1,320**	**502**	**1,350**
MW-4	269	889	**325**	902
MW-5	219	**1,120**	257	1,000
MW-6	**395**	**1,470**	**383**	**1,490**
MW-7	NS	NS	NS	NS
MW-8	**884**	**2,390**	**919**	**2,400**
MW-9	**2,620**	**4,240**	**2,520**	**4,610**
MW-10	**4,860**	**8,210**	**4,980**	**8,520**
MW-11	**7,680**	**11,800**	**7,590**	**12,400**
MW-12	**11,000**	**22,600**	**12,600**	**23,400**
MW-13	**1,400**	**4,440**	**1,960**	**3,720**
MW-14	**1,110**	**3,120**	**1,670**	**2,940**
MW-15	**1,300**	**1,800**	**1,010**	**1,850**
MW-16	**301**	**1,060**	**393**	**1,110**
MW-17	**7,880**	**13,100**	**9,620**	**15,300**
MW-18	**21,000**	**33,100**	**19,900**	**37,300**
MW-19	**6,860**	**11,000**	**7,160**	**12,800**
MW-20	**1,270**	**2,330**	**1,260**	**2,500**
MW-21	**6,720**	**11,000**	**7,010**	**11,000**
MW-22	**11,300**	**18,000**	**12,400**	**20,600**
MW-23	**3,420**	**9,780**	**3,840**	**10,200**
MW-24	**4,180**	**8,860**	**4,150**	**8,980**

Table 4

2nd Half 2019 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	July		October	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**
MW-25	**23,200**	**33,200**	**20,900**	**24,800**
MW-26	**1,360**	**2,960**	**1,340**	**3,250**
MW-27	**2,540**	**4,440**	**2,490**	**4,160**
MW-28	**2,180**	**3,490**	**2,410**	**3,780**
MW-29	**500**	**1,140**	**501**	**1,200**
MW-30	**1,500**	**4,200**	**2,340**	**3,880**
MW-31	**10,900**	**16,600**	**10,500**	**17,900**
MW-32	**314**	**1,090**	271	**1,110**
MW-33	153	988	156	**1,040**
MW-34	64	621	66.5	604
NM-MW-1	291	**1,380**	281	**1,450**
NM-MW-2	**697**	**1,330**	**666**	**1,240**
NM-MW-3	184	581	183	596
NM-MW-4	40.6	423	46.2	430
NM-MW-5	149	**1,290**	170	**1,320**
NM-MW-6	143	863	139	827
NM-MW-7	**2,600**	**4,390**	**2,370**	**4,240**
NM-MW-8	**6,200**	**9,310**	**7,120**	**10,700**
NM-MW-9	264	797	243	812
NM-MW-10	**354**	**1,680**	**340**	**1,670**
NM-MW-11	157	**1,980**	134	**1,530**
NM-MW-12	**657**	524	**512**	**1,380**
NM-MW-13	199	**1,090**	179	**1,100**
Non-Remedial Wells				
Livermore	**1,340**	**4,720**	**2,490**	**4,160**
Pure Water Tower	NA	NA	NA	NA
Pure Water Well	NA	NA	NA	NA
RRR Ranch Windmill	**1,800**	**3,560**	**1,800**	**3,500**
Smith Residential Well	**1,300**	**2,660**	**1,180**	**2,140**
TRAC-4	**333**	**1,110**	**323**	**1,070**
TRAC-8	NA	NA	NA	NA
Wilson Ranch	**1,300**	**2,530**	**928**	**1,880**
DHU-FWS	**624**	**3,020**	**603**	**2,950**

Notes:

1. Constituent concentrations are reported in milligrams per liter (mg/L).

2. Bold font and shading indicates that a detected result was above the TCEQ Secondary Drinking Water Standard.

NA = Not Applicable
NS = Not Sampled

Released to Imaging: 11/21/2023 10:32:34 AM

Appendices

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A
Historical Groundwater Elevations

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Monitor Wells						
43-K-1-MW						
NM	02/28/07	NM	94.85	NA	NA	NA
	01/22/08	112.95	95.26	NA	NA	NA
	07/07/08	NM	95.33	NA	NA	NA
	08/26/09	114.28	95.69	NA	NA	NA
	01/28/09	112.95	95.32	NA	NA	NA
	08/16/10	NM	95.40	NA	NA	NA
	02/11/11	112.00	95.45	NA	NA	NA
	08/02/11	112.91	94.79	NA	NA	NA
	01/30/13	112.90	95.23	NA	NA	NA
	01/13/14	112.96	92.33	NA	NA	NA
	07/14/14	NM	95.29	NA	NA	NA
	01/12/15	NM	95.21	NA	NA	NA
	07/14/15	NM	95.00	NA	NA	NA
	01/25/16	116.47	94.90	NA	NA	NA
	07/20/16	NM	94.87	NA	NA	NA
	01/11/17	NM	94.82	NA	NA	NA
	07/13/17	NM	95.00	NA	NA	NA
	01/12/18	NM	94.61	NA	NA	NA
	07/02/18	NM	94.47	NA	NA	NA
	01/07/19	NM	94.20	NA	NA	NA
	07/11/19	112.89	94.16	NA	NA	NA
44-I-1-MW						
3,133.50	06/13/06	108.25	93.55	NA	NA	3,039.95
	08/15/06	110.00	96.85	NA	NA	3,036.65
	09/13/06	106.38	96.91	NA	NA	3,036.59
	09/20/06	110.00	96.72	NA	NA	3,036.78
	10/04/06	110.00	96.94	NA	NA	3,036.56
	12/08/06	111.05	97.09	NA	NA	3,036.41
	02/13/07	108.25	96.85	NA	NA	3,036.65
	02/28/07	NM	96.85	NA	NA	3,036.65
	07/30/07	108.25	96.88	NA	NA	3,036.62
	01/22/08	108.25	97.05	NA	NA	3,036.45
	07/09/08	108.25	97.13	NA	NA	3,036.37
	01/28/09	108.25	97.46	NA	NA	3,036.04
	08/27/09	106.20	97.57	NA	NA	3,035.93
	02/19/10	NM	97.31	NA	NA	3,036.19
	08/16/10	NM	97.30	NA	NA	3,036.20
	02/11/11	NM	96.68	NA	NA	3,036.82
	08/02/11	106.70	96.17	NA	NA	3,037.33
	08/15/12	106.65	96.21	NA	NA	3,037.29
	01/30/13	106.26	95.97	NA	NA	3,037.53
	07/30/13	106.65	96.18	NA	NA	3,037.32
	01/13/14	106.65	96.21	NA	NA	3,037.29
	07/14/14	111.17	95.85	NA	NA	3,037.65
	01/12/15	NM	96.27	NA	NA	3,037.23
	07/14/15	NM	95.91	NA	NA	3,037.59
3,138.93	01/25/16	106.94	95.96	NA	NA	3,042.97
	07/20/16	NM	96.10	NA	NA	3,042.83
	01/12/17	NM	95.84	NA	NA	3,043.09
	07/13/17	NM	96.03	NA	NA	3,042.90
	01/12/18	NM	95.64	NA	NA	3,043.29
	07/02/18	NM	95.94	NA	NA	3,042.99
	01/09/19	NM	95.82	NA	NA	3,043.11
	07/11/19	106.21	95.53	NA	NA	3,043.40
44-J-1-MW						
3,134.50	06/13/06	111.04	96.31	NA	NA	3,038.19
	07/13/06	111.04	96.38	NA	NA	3,038.12
	08/15/06	111.00	96.53	NA	NA	3,037.97
	09/13/06	110.00	96.54	NA	NA	3,037.96
	09/20/06	111.00	96.40	NA	NA	3,038.10
	10/04/06	111.00	96.64	NA	NA	3,037.86
	12/08/06	111.97	97.41	NA	NA	3,037.09
	02/13/07	111.04	96.39	NA	NA	3,038.11
	02/28/07	NM	96.39	NA	NA	3,038.11
	07/30/07	111.04	96.51	NA	NA	3,037.99
	01/22/08	111.04	96.86	NA	NA	3,037.64
	07/09/08	111.04	96.90	NA	NA	3,037.60
	01/28/09	111.04	97.21	NA	NA	3,037.29
	08/28/09	110.40	97.27	NA	NA	3,037.23
	08/16/10	NM	96.82	NA	NA	3,037.68
	02/11/11	NM	96.42	NA	NA	3,038.08
	08/02/11	110.72	95.90	NA	NA	3,038.60
	08/15/12	110.04	96.03	NA	NA	3,038.47
	01/30/13	110.69	95.79	NA	NA	3,038.71
	07/30/13	110.80	95.92	NA	NA	3,038.58
	01/13/14	110.81	95.96	NA	NA	3,038.54
	07/14/14	110.76	95.91	NA	NA	3,038.59
	01/12/15	NM	96.01	NA	NA	3,038.49
	01/25/16	NM	95.72	NA	NA	3,038.78
	07/20/16	NM	95.85	NA	NA	3,038.65
	01/12/17	NM	95.60	NA	NA	3,038.90
	07/13/17	NM	95.80	NA	NA	3,038.70
	01/12/18	NM	95.41	NA	NA	3,039.09
	07/02/18	NM	95.70	NA	NA	3,038.80
	01/09/19	NM	95.57	NA	NA	3,038.93
	07/11/19	110.59	95.29	NA	NA	3,039.21

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-2-MW						
3,135.30	06/13/06	109.87	91.83	NA	NA	3,043.47
	07/13/06	109.87	94.82	NA	NA	3,040.48
	08/15/06	110.00	94.97	NA	NA	3,040.33
	09/13/06	110.00	95.01	NA	NA	3,040.29
	09/20/06	110.00	94.97	NA	NA	3,040.33
	10/04/06	110.00	96.56	NA	NA	3,038.74
	12/08/06	114.32	95.14	NA	NA	3,040.16
	02/13/07	109.87	94.68	NA	NA	3,040.62
	02/28/07	NM	94.68	NA	NA	3,040.62
	07/30/07	109.87	94.82	NA	NA	3,040.48
	01/22/08	109.87	95.04	NA	NA	3,040.26
	07/09/08	109.87	95.10	NA	NA	3,040.20
	01/28/09	109.87	95.29	NA	NA	3,040.01
	08/28/09	109.00	95.37	NA	NA	3,039.93
	02/19/10	NM	94.56	NA	NA	3,040.74
	08/16/10	NM	95.04	NA	NA	3,040.26
	02/11/11	NM	94.99	NA	NA	3,040.31
	08/02/11	108.75	94.48	NA	NA	3,040.82
	08/15/12	108.80	94.99	NA	NA	3,040.31
	01/30/13	108.90	94.57	NA	NA	3,040.73
	07/30/13	109.00	94.61	NA	NA	3,040.69
	01/13/14	109.03	94.56	NA	NA	3,040.74
	07/14/14	109.02	94.65	NA	NA	3,040.65
	01/12/15	NM	94.68	NA	NA	3,040.62
	07/14/15	NM	94.43	NA	NA	3,040.87
	01/25/16	109.01	94.39	NA	NA	3,040.91
	07/20/16	NM	94.45	NA	NA	3,040.85
	01/12/17	NM	94.30	NA	NA	3,041.00
	07/13/17	NM	94.48	NA	NA	3,040.82
	01/12/18	NM	94.15	NA	NA	3,041.15
	07/02/18	NM	94.31	NA	NA	3,040.99
	01/09/19	NM	94.14	NA	NA	3,041.16
	07/11/19	108.70	93.94	NA	NA	3,041.36
44-J-3-MW						
3,135.25	07/13/06	113.00	96.77	NA	NA	3,038.48
	08/07/06	113.00	96.94	NA	NA	3,038.31
	08/15/06	113.00	96.98	NA	NA	3,038.27
	09/13/06	113.00	97.01	NA	NA	3,038.24
	09/20/06	113.00	95.96	NA	NA	3,039.29
	10/04/06	113.00	97.10	NA	NA	3,038.15
	12/08/06	120.40	97.04	NA	NA	3,038.21
	01/22/08	114.55	97.63	NA	NA	3,037.62
	08/28/09	114.60	97.97	NA	NA	3,037.28
	02/19/10	NM	97.21	NA	NA	3,038.04
	08/16/10	NM	97.20	NA	NA	3,038.05
	02/11/11	110.00	96.74	NA	NA	3,038.51
	08/02/11	114.71	96.27	NA	NA	3,038.98
	01/30/13	114.83	96.17	NA	NA	3,039.08
	07/30/13	114.55	96.22	NA	NA	3,039.03
	01/13/14	114.55	96.25	NA	NA	3,039.00
	07/14/14	114.51	96.23	NA	NA	3,039.02
	01/12/15	NM	96.30	NA	NA	3,038.95
	07/14/15	NM	96.01	NA	NA	3,039.24
3,140.19	01/25/16	114.59	96.02	NA	NA	3,044.17
	07/20/16	NM	96.03	NA	NA	3,044.16
	01/13/17	NM	95.94	NA	NA	3,044.25
	07/13/17	NM	96.05	NA	NA	3,044.14
	01/12/18	NM	95.72	NA	NA	3,044.47
	07/02/18	NM	95.87	NA	NA	3,044.32
	01/09/19	NM	95.66	NA	NA	3,044.53
	07/11/19	114.35	95.49	NA	NA	3,044.70
44-J-4-MW						
3,133.69	07/13/06	111.00	95.79	NA	NA	3,037.90
	08/07/06	111.00	95.97	NA	NA	3,037.72
	08/15/06	111.00	96.02	NA	NA	3,037.67
	09/13/06	111.00	96.04	NA	NA	3,037.65
	09/20/06	111.00	96.00	NA	NA	3,037.69
	10/04/06	111.00	96.11	NA	NA	3,037.58
	12/08/06	115.05	96.09	NA	NA	3,037.60
	01/22/08	113.40	96.77	NA	NA	3,036.92
	08/27/09	113.20	97.09	NA	NA	3,036.60
	02/19/10	NM	96.26	NA	NA	3,037.43
	08/16/10	NM	96.23	NA	NA	3,037.46
	02/11/11	110.00	95.74	NA	NA	3,037.95
	08/02/11	113.43	95.22	NA	NA	3,038.47
	01/30/13	113.25	95.14	NA	NA	3,038.55
	07/30/13	112.95	95.19	NA	NA	3,038.50
	01/13/14	112.93	95.22	NA	NA	3,038.47
	07/14/14	112.94	95.21	NA	NA	3,038.48
	01/12/15	NM	95.25	NA	NA	3,038.44
	07/14/15	NM	94.98	NA	NA	3,038.71
	01/25/16	112.98	94.98	NA	NA	3,038.71
	07/20/16	NM	95.03	NA	NA	3,038.66
	01/12/17	NM	94.92	NA	NA	3,038.77
	07/13/17	NM	95.03	NA	NA	3,038.66
	01/12/18	NM	94.71	NA	NA	3,038.98
	07/02/18	NM	94.87	NA	NA	3,038.82
	01/09/19	NM	94.62	NA	NA	3,039.07
	07/11/19	113.25	94.48	NA	NA	3,039.21

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-5-MW						
3,134.75	06/13/06	110.00	96.83	NA	NA	3,037.92
	07/13/06	110.00	96.83	NA	NA	3,037.92
	08/07/06	110.00	97.00	NA	NA	3,037.75
	08/15/06	110.00	97.01	NA	NA	3,037.74
	09/13/06	110.00	97.05	NA	NA	3,037.70
	09/20/06	110.00	97.02	NA	NA	3,037.73
	10/04/06	110.00	97.13	NA	NA	3,037.62
	12/08/06	117.61	97.13	NA	NA	3,037.62
	01/22/08	113.70	97.53	NA	NA	3,037.22
	08/27/09	113.60	97.88	NA	NA	3,036.87
	08/16/10	NM	97.23	NA	NA	3,037.52
	02/11/11	NM	96.84	NA	NA	3,037.91
	08/02/11	113.71	96.32	NA	NA	3,038.43
	01/30/13	113.70	96.23	NA	NA	3,038.52
	07/30/13	113.23	96.30	NA	NA	3,038.45
	01/13/14	113.25	96.33	NA	NA	3,038.42
	07/14/14	113.20	96.30	NA	NA	3,038.45
	01/12/15	NM	96.38	NA	NA	3,038.37
	07/14/15	NM	96.10	NA	NA	3,038.65
	01/25/16	113.26	96.10	NA	NA	3,038.65
	07/20/16	NM	96.14	NA	NA	3,038.61
	01/12/17	NM	96.02	NA	NA	3,038.73
	07/13/17	NM	96.16	NA	NA	3,038.59
	01/12/18	NM	95.80	NA	NA	3,038.95
	07/02/18	NM	95.98	NA	NA	3,038.77
	01/09/19	NM	95.81	NA	NA	3,038.94
	07/11/19	113.11	95.59	NA	NA	3,039.16
45-E-1-MW						
NM	09/12/06	NM	88.92	NA	NA	NA
	12/08/06	105.50	89.15	NA	NA	NA
	02/13/07	107.06	88.51	NA	NA	NA
	02/28/07	NM	88.51	NA	NA	NA
	07/30/07	107.06	88.95	NA	NA	NA
	01/22/08	107.06	90.04	NA	NA	NA
	07/09/08	107.06	89.31	NA	NA	NA
	01/28/09	107.06	89.31	NA	NA	NA
	08/27/09	102.95	89.72	NA	NA	NA
	08/16/10	NM	90.37	NA	NA	NA
	02/11/11	NM	90.36	NA	NA	NA
	08/02/11	103.00	89.70	NA	NA	NA
	01/25/16	103.31	90.58	NA	NA	NA
	07/20/16	NM	90.65	NA	NA	NA
	01/12/17	NM	90.20	NA	NA	NA
	07/13/17	NM	89.96	NA	NA	NA
	01/12/18	NM	88.74	NA	NA	NA
	07/02/18	NM	88.37	NA	NA	NA
	01/09/19	NM	87.95	NA	NA	NA
	07/11/19	102.23	87.66	NA	NA	NA
45-E-2-MW						
NM	09/12/06	NM	81.36	NA	NA	NA
	12/08/06	104.00	86.58	NA	NA	NA
	02/13/07	109.28	85.82	NA	NA	NA
	02/28/07	NM	85.82	NA	NA	NA
	07/30/07	109.28	86.49	NA	NA	NA
	01/22/08	109.28	86.58	NA	NA	NA
	07/09/08	109.28	86.86	NA	NA	NA
	01/28/09	109.28	86.79	NA	NA	NA
	08/26/09	104.20	87.28	NA	NA	NA
	08/16/10	NM	87.84	NA	NA	NA
	02/11/11	NM	88.03	NA	NA	NA
	08/02/11	104.25	87.21	NA	NA	NA
	08/15/12	104.23	87.82	NA	NA	NA
	01/25/16	104.48	88.34	NA	NA	NA
	07/20/16	NM	88.33	NA	NA	NA
	01/12/17	NM	87.93	NA	NA	NA
	07/13/17	NM	87.62	NA	NA	NA
	01/12/18	NM	86.23	NA	NA	NA
	07/02/18	NM	88.85	NA	NA	NA
	01/09/19	NM	85.41	NA	NA	NA
	07/11/19	104.10	85.11	NA	NA	NA
45-E-3-MW						
NM	02/13/07	107.95	88.68	NA	NA	NA
	02/28/07	NM	88.68	NA	NA	NA
	07/26/07	107.95	89.30	NA	NA	NA
	01/22/08	107.95	89.54	NA	NA	NA
	07/08/08	107.95	89.70	NA	NA	NA
	01/28/06	107.95	89.70	NA	NA	NA
	08/26/09	110.00	90.06	NA	NA	NA
	08/16/10	NM	90.63	NA	NA	NA
	02/11/11	107.00	90.74	NA	NA	NA
	08/02/11	107.91	90.19	NA	NA	NA
	07/20/16	NM	91.05	NA	NA	NA
	01/11/17	NM	90.50	NA	NA	NA
	07/13/17	NM	90.37	NA	NA	NA
	01/12/18	NM	89.35	NA	NA	NA
	07/02/18	NM	88.75	NA	NA	NA
	01/09/19	NM	88.41	NA	NA	NA
	07/11/19	107.18	88.13	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
45-F-1-MW						
NM	06/13/06	108.19	90.99	NA	NA	NA
	09/12/06	NM	90.15	NA	NA	NA
	12/08/06	107.40	90.34	NA	NA	NA
	02/13/07	108.19	90.22	NA	NA	NA
	02/28/07	NM	90.02	NA	NA	NA
	07/30/07	108.19	90.22	NA	NA	NA
	01/22/08	108.19	90.52	NA	NA	NA
	07/09/08	108.19	90.63	NA	NA	NA
	01/28/09	108.19	90.81	NA	NA	NA
	08/27/09	106.80	90.93	NA	NA	NA
	08/16/10	NM	91.41	NA	NA	NA
	02/11/11	NM	91.52	NA	NA	NA
	08/02/11	107.03	91.15	NA	NA	NA
	08/15/12	108.02	91.40	NA	NA	NA
	01/30/13	106.82	91.29	NA	NA	NA
	07/30/13	107.90	91.70	NA	NA	NA
	01/14/13	107.94	91.71	NA	NA	NA
	07/14/14	107.87	91.53	NA	NA	NA
	01/12/15	NM	91.78	NA	NA	NA
	07/14/15	NM	91.62	NA	NA	NA
	01/25/16	107.90	91.72	NA	NA	NA
	07/20/16	NM	91.56	NA	NA	NA
	01/12/17	NM	91.40	NA	NA	NA
	07/13/17	NM	90.96	NA	NA	NA
	01/12/18	NM	90.44	NA	NA	NA
	07/02/18	NM	90.14	NA	NA	NA
	01/09/19	NM	89.78	NA	NA	NA
	07/11/19	106.79	89.49	NA	NA	NA
45-FF-MW						
3,122.70	06/13/06	111.19	90.57	NA	NA	3,032.13
	09/12/06	NM	90.77	NA	NA	3,031.93
	12/08/06	114.00	90.94	NA	NA	3,031.76
	02/13/07	111.19	90.58	NA	NA	3,032.12
	02/28/07	NM	90.58	NA	NA	3,032.12
	07/30/07	111.19	90.81	NA	NA	3,031.89
	01/22/08	111.19	91.16	NA	NA	3,031.54
	07/09/08	111.19	91.22	NA	NA	3,031.48
	01/28/09	111.19	91.16	NA	NA	3,031.54
	08/27/09	107.50	91.54	NA	NA	3,031.16
	08/16/10	NM	92.01	NA	NA	3,030.69
	02/11/11	NM	92.19	NA	NA	3,030.51
	08/02/11	111.11	91.71	NA	NA	3,030.99
	01/30/13	110.91	91.92	NA	NA	3,030.78
	07/30/13	110.50	92.30	NA	NA	3,030.40
	01/13/14	110.51	92.33	NA	NA	3,030.37
	07/14/14	110.48	92.02	NA	NA	3,030.68
	01/12/15	NM	92.41	NA	NA	3,030.29
	07/14/15	NM	92.30	NA	NA	3,030.40
	01/25/16	110.94	92.36	NA	NA	3,030.34
	07/20/16	NM	92.16	NA	NA	3,030.54
	01/12/17	NM	91.96	NA	NA	3,030.74
	07/13/17	NM	91.55	NA	NA	3,031.15
	01/12/18	NM	90.90	NA	NA	3,031.80
	07/02/18	NM	90.54	NA	NA	3,032.16
	01/09/19	NM	90.31	NA	NA	3,032.39
	07/11/19	110.16	89.90	NA	NA	3,032.80
58-B-1-MW						
3,100.59	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	87.12	NA	NA	3,013.47
	12/08/06	106.20	87.06	NA	NA	3,013.53
	02/13/07	105.50	87.02	NA	NA	3,013.57
	02/28/07	NM	87.02	NA	NA	3,013.57
	07/26/07	105.50	87.37	NA	NA	3,013.22
	01/22/08	105.50	87.79	NA	NA	3,012.80
	07/08/08	105.50	87.67	NA	NA	3,012.92
	01/28/09	104.79	87.67	NA	NA	3,012.92
	08/26/09	104.80	87.77	NA	NA	3,012.82
	08/16/10	NM	87.88	NA	NA	3,012.71
	02/11/11	NM	87.43	NA	NA	3,013.16
	08/05/11	104.55	87.00	NA	NA	3,013.59
	08/15/12	104.59	88.12	NA	NA	3,012.47
	01/30/13	107.53	87.76	NA	NA	3,012.83
	07/30/13	104.50	88.56	NA	NA	3,012.03
	01/13/14	104.56	88.60	NA	NA	3,011.99
	07/14/14	104.47	87.92	NA	NA	3,012.67
	01/12/15	NM	88.38	NA	NA	3,012.21
	07/22/16	NM	87.70	NA	NA	3,012.89
	01/13/17	NM	87.20	NA	NA	3,013.39
	07/13/17	NM	86.71	NA	NA	3,013.88
	01/12/18	NM	85.34	NA	NA	3,015.25
	07/02/18	NM	86.12	NA	NA	3,014.47
	01/07/19	NM	85.76	NA	NA	3,014.83
	07/09/19	104.40	85.69	NA	NA	3,014.90

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
58-B-2-MW						
3,111.91	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	85.80	NA	NA	3,026.11
	12/08/06	NM	85.60	NA	NA	3,026.31
	02/13/07	105.45	85.61	NA	NA	3,026.30
	02/28/07	NM	85.61	NA	NA	3,026.30
	07/26/07	105.45	85.88	NA	NA	3,026.03
	01/22/08	105.45	86.28	NA	NA	3,025.63
	07/08/08	105.45	86.16	NA	NA	3,025.75
	01/28/09	105.45	86.23	NA	NA	3,025.68
	08/26/09	104.50	86.33	NA	NA	3,025.58
	08/16/10	NM	86.42	NA	NA	3,025.49
	02/11/11	NM	86.11	NA	NA	3,025.80
	08/02/11	105.12	85.75	NA	NA	3,026.16
	08/15/12	105.43	86.70	NA	NA	3,025.21
	07/14/15	NM	88.61	NA	NA	3,023.30
	01/25/16	105.08	85.92	NA	NA	3,025.99
	07/22/16	NM	86.40	NA	NA	3,025.51
	01/13/17	NM	85.92	NA	NA	3,025.99
	07/13/17	NM	85.55	NA	NA	3,026.36
	01/12/18	NM	86.47	NA	NA	3,025.44
	07/02/18	NM	85.10	NA	NA	3,026.81
	01/07/19	NM	84.75	NA	NA	3,027.16
	07/09/19	104.47	84.67	NA	NA	3,027.24
58-B-3-MW						
3,108.46	02/13/07	100.75	89.48	NA	NA	3,018.98
	02/28/07	NM	89.48	NA	NA	3,018.98
	07/26/07	100.75	89.39	NA	NA	3,019.07
	01/22/08	100.75	89.71	NA	NA	3,018.75
	07/08/08	100.75	89.75	NA	NA	3,018.71
	01/28/09	100.75	89.81	NA	NA	3,018.65
	08/26/09	104.00	89.88	NA	NA	3,018.58
	08/16/10	NM	90.05	NA	NA	3,018.41
	02/11/11	102.00	90.02	NA	NA	3,018.44
	08/02/11	100.68	89.97	NA	NA	3,018.49
	08/15/12	100.73	90.11	NA	NA	3,018.35
	01/30/13	100.89	90.16	NA	NA	3,018.30
	07/30/13	100.80	90.24	NA	NA	3,018.22
	01/13/14	100.80	90.33	NA	NA	3,018.13
	07/14/14	100.79	90.39	NA	NA	3,018.07
	01/12/15	NM	89.80	NA	NA	3,018.66
	07/14/15	NM	90.06	NA	NA	3,018.40
	01/25/16	100.78	90.08	NA	NA	3,018.38
	07/22/16	NM	90.14	NA	NA	3,018.32
	01/10/17	NM	90.02	NA	NA	3,018.44
	07/13/17	NM	89.88	NA	NA	3,018.58
	01/12/18	NM	89.78	NA	NA	3,018.68
	07/02/18	NM	89.62	NA	NA	3,018.84
	01/07/19	NM	89.36	NA	NA	3,019.10
	07/09/19	100.68	89.37	NA	NA	3,019.09
MW-2						
3,204.56	8/7/2015	NM	104.07	NA	NA	3,100.49
	1/25/2016	109.14	109.05	NA	NA	3,095.51
	7/21/2016	NM	109.10	NA	NA	3,095.46
	1/12/2017	NM	109.20	NA	NA	3,095.36
	4/10/2017	109.71	DRY	NA	NA	DRY
	7/13/2017	NM	109.14	NA	NA	3,095.42
	10/3/2017	109.33	DRY	NA	NA	DRY
	1/12/2018	109.15	DRY	NA	NA	DRY
	4/2/2018	109.15	DRY	NA	NA	DRY
	07/02/18	109.15	DRY	NA	NA	DRY
	10/1/2018	109.58	DRY	NA	NA	DRY
	1/8/2019	109.70	DRY	NA	NA	DRY
	4/9/2019	109.45	DRY	NA	NA	DRY
	7/9/2019	109.14	DRY	NA	NA	DRY
	10/9/2019	NM	DRY	NA	NA	DRY
MW-3						
3,199.51	8/7/2015	NM	112.88	NA	NA	3,086.63
	1/25/2016	119.30	112.95	NA	NA	3,086.56
	7/21/2016	NM	113.02	NA	NA	3,086.49
	1/11/2017	NM	112.95	NA	NA	3,086.56
	4/10/2017	NM	113.17	NA	NA	3,086.34
	7/13/2017	NM	113.04	NA	NA	3,086.47
	10/3/2017	NM	113.11	NA	NA	3,086.40
	1/12/2018	NM	113.04	NA	NA	3,086.47
	4/2/2018	NM	113.20	NA	NA	3,086.31
	07/02/18	NM	113.09	NA	NA	3,086.42
	10/1/2018	NM	113.14	NA	NA	3,086.37
	1/8/2019	NM	113.10	NA	NA	3,086.41
	4/9/2019	NM	113.13	NA	NA	3,086.38
	7/10/2019	119.39	113.19	NA	NA	3,086.32
	10/9/2019	NM	113.78	NA	NA	3,085.73
MW-4						
3,189.69	8/7/2015	NM	115.53	NA	NA	3,074.16
	1/25/2016	116.91	115.60	NA	NA	3,074.09
	7/21/2016	NM	115.65	NA	NA	3,074.04
	1/11/2017	NM	115.55	NA	NA	3,074.14
	4/10/2017	117.74	115.67	NA	NA	3,074.02
	7/13/2017	NM	115.64	NA	NA	3,074.05
	10/3/2017	118.13	115.65	NA	NA	3,074.04
	1/12/2018	NM	115.60	NA	NA	3,074.09
	4/2/2018	NM	115.70	NA	NA	3,073.99
	07/02/18	NM	115.61	NA	NA	3,074.08
	10/1/2018	NM	115.72	NA	NA	3,073.97
	1/8/2019	NM	115.65	NA	NA	3,074.04
	4/9/2019	NM	115.70	NA	NA	3,073.99
	7/10/2019	116.93	115.74	NA	NA	3,073.95
	10/9/2019	NM	115.93	NA	NA	3,073.76

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-5						
3,174.43	8/7/2015	NM	102.74	NA	NA	3,071.69
	1/25/2016	116.91	102.78	NA	NA	3,071.65
	7/21/2016	NM	102.84	NA	NA	3,071.59
	1/11/2017	NM	102.80	NA	NA	3,071.63
	4/10/2017	116.95	102.85	NA	NA	3,071.58
	7/13/2017	NM	102.88	NA	NA	3,071.55
	10/3/2017	NM	102.91	NA	NA	3,071.52
	1/12/2018	NM	102.95	NA	NA	3,071.48
	4/2/2018	NM	102.94	NA	NA	3,071.49
	07/02/18	NM	102.93	NA	NA	3,071.50
	10/1/2018	NM	103.00	NA	NA	3,071.43
	1/8/2019	NM	102.90	NA	NA	3,071.53
	4/9/2019	NM	102.99	NA	NA	3,071.44
	7/10/2019	116.96	103.00	NA	NA	3,071.43
	10/9/2019	NM	103.02	NA	NA	3,071.41
MW-6						
3,165.25	8/7/2015	NM	93.97	NA	NA	3,071.28
	1/25/2016	130.94	94.21	NA	NA	3,071.04
	7/21/2016	NM	94.28	NA	NA	3,070.97
	1/11/2017	NM	94.01	NA	NA	3,071.24
	4/10/2017	130.83	94.21	NA	NA	3,071.04
	7/13/2017	NM	94.11	NA	NA	3,071.14
	10/3/2017	NM	94.14	NA	NA	3,071.11
	1/12/2018	NM	93.80	NA	NA	3,071.45
	4/2/2018	NM	94.18	NA	NA	3,071.07
	07/02/18	NM	93.89	NA	NA	3,071.36
	10/1/2018	NM	93.90	NA	NA	3,071.35
	1/8/2019	NM	93.94	NA	NA	3,071.31
	4/9/2019	NM	93.74	NA	NA	3,071.51
	7/10/2019	128.94	93.92	NA	NA	3,071.33
	10/9/2019	NM	93.80	NA	NA	3,071.45
MW-7						
3,132.14	8/7/2015	NM	112.10	NA	NA	3,020.04
	1/25/2016	117.20	112.77	NA	NA	3,019.37
	7/21/2016	NM	114.50	NA	NA	3,017.64
	1/11/2017	NM	115.92	NA	NA	3,016.22
	4/10/2017	116.73	DRY	NA	NA	DRY
	7/13/2017	116.55	DRY	NA	NA	DRY
	10/3/2017	116.46	DRY	NA	NA	DRY
	1/12/2018	NM	DRY	NA	NA	DRY
	4/2/2018	116.66	DRY	NA	NA	DRY
	07/02/18	116.70	DRY	NA	NA	DRY
	10/1/2018	116.61	DRY	NA	NA	DRY
	1/8/2019	116.61	DRY	NA	NA	DRY
	4/5/2019	117.09	DRY	NA	NA	DRY
	7/10/2019	116.59	DRY	NA	NA	DRY
	10/8/2019	NM	DRY	NA	NA	DRY
MW-8						
3,107.34	8/7/2015	NM	85.03	NA	NA	3,022.31
	1/25/2016	110.98	85.46	NA	NA	3,021.88
	7/21/2016	NM	85.10	NA	NA	3,022.24
	1/13/2017	NM	84.95	NA	NA	3,022.39
	4/7/2017	110.98	85.00	NA	NA	3,022.34
	7/13/2017	NM	84.68	NA	NA	3,022.66
	10/3/2017	NM	84.86	NA	NA	3,022.48
	1/12/2018	NM	84.75	NA	NA	3,022.59
	4/2/2018	NM	85.20	NA	NA	3,022.14
	07/02/18	NM	85.09	NA	NA	3,022.25
	10/1/2018	NM	84.83	NA	NA	3,022.51
	1/8/2019	NM	84.81	NA	NA	3,022.53
	4/5/2019	NM	84.52	NA	NA	3,022.82
	7/9/2019	110.97	84.45	NA	NA	3,022.89
	10/8/2019	NM	84.33	NA	NA	3,023.01
MW-9						
3,103.82	8/7/2015	NM	85.68	NA	NA	3,018.14
	1/25/2016	105.30	85.87	NA	NA	3,017.95
	7/21/2016	NM	85.80	NA	NA	3,018.02
	1/13/2017	NM	85.76	NA	NA	3,018.06
	4/7/2017	105.28	85.65	NA	NA	3,018.17
	7/13/2017	NM	85.50	NA	NA	3,018.32
	10/3/2017	NM	85.53	NA	NA	3,018.29
	1/12/2018	NM	85.38	NA	NA	3,018.44
	4/2/2018	NM	85.73	NA	NA	3,018.09
	07/02/18	NM	85.24	NA	NA	3,018.58
	10/1/2018	NM	85.24	NA	NA	3,018.58
	1/7/2019	NM	85.05	NA	NA	3,018.77
	4/5/2019	NM	85.09	NA	NA	3,018.73
	7/9/2019	102.06	85.02	NA	NA	3,018.80
	10/8/2019	NM	84.93	NA	NA	3,018.89
MW-10						
3,139.71	8/7/2015	NM	97.21	NA	NA	3,042.50
	1/25/2016	116.50	97.33	NA	NA	3,042.38
	7/20/2016	NM	97.18	NA	NA	3,042.53
	1/12/2017	NM	97.21	NA	NA	3,042.50
	4/7/2017	116.36	97.22	NA	NA	3,042.49
	7/13/2017	NM	97.12	NA	NA	3,042.59
	10/3/2017	NM	97.35	NA	NA	3,042.36
	1/12/2018	NM	97.30	NA	NA	3,042.41
	4/2/2018	NM	97.41	NA	NA	3,042.30
	07/02/18	NM	97.24	NA	NA	3,042.47
	10/1/2018	NM	97.35	NA	NA	3,042.36
	1/8/2019	NM	97.35	NA	NA	3,042.36
	4/5/2019	NM	97.22	NA	NA	3,042.49
	7/9/2019	116.65	97.22	NA	NA	3,042.49
	10/8/2019	NM	97.12	NA	NA	3,042.59

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-11						
3,156.65	8/7/2015	NM	102.00	NA	NA	3,054.65
	1/25/2016	110.23	102.08	NA	NA	3,054.57
	7/21/2016	NM	102.16	NA	NA	3,054.49
	1/11/2017	NM	102.10	NA	NA	3,054.55
	4/10/2017	110.02	102.22	NA	NA	3,054.43
	7/13/2017	NM	102.22	NA	NA	3,054.43
	10/3/2017	NM	102.28	NA	NA	3,054.37
	1/12/2018	NM	102.18	NA	NA	3,054.47
	4/2/2018	NM	102.39	NA	NA	3,054.26
	07/02/18	NM	102.28	NA	NA	3,054.37
	10/1/2018	NM	102.35	NA	NA	3,054.30
	1/8/2019	NM	102.35	NA	NA	3,054.30
	4/9/2019	NM	102.45	NA	NA	3,054.20
	7/10/2019	110.03	102.41	NA	NA	3,054.24
	10/9/2019	NM	102.36	NA	NA	3,054.29
MW-12						
3,151.33	8/7/2015	NM	94.70	NA	NA	3,056.63
	1/25/2016	114.18	94.68	NA	NA	3,056.65
	7/20/2016	NM	94.69	NA	NA	3,056.64
	1/11/2017	NM	94.70	NA	NA	3,056.63
	4/7/2017	114.15	94.66	NA	NA	3,056.67
	7/13/2017	NM	94.60	NA	NA	3,056.73
	10/3/2017	NM	94.87	NA	NA	3,056.46
	1/12/2018	NM	94.66	NA	NA	3,056.67
	4/2/2018	NM	94.74	NA	NA	3,056.59
	07/02/18	NM	94.71	NA	NA	3,056.62
	10/1/2018	NM	94.87	NA	NA	3,056.46
	1/8/2019	NM	94.92	NA	NA	3,056.41
	4/10/2019	NM	94.75	NA	NA	3,056.58
	7/9/2019	114.14	94.85	NA	NA	3,056.48
	10/8/2019	NM	94.71	NA	NA	3,056.62
MW-13						
3,168.41	8/7/2015	NM	98.61	NA	NA	3,069.80
	1/25/2016	127.85	98.88	NA	NA	3,069.53
	7/21/2016	NM	98.78	NA	NA	3,069.63
	1/11/2017	NM	98.49	NA	NA	3,069.92
	4/10/2017	127.90	98.70	NA	NA	3,069.71
	7/13/2017	NM	98.60	NA	NA	3,069.81
	10/3/2017	NM	98.70	NA	NA	3,069.71
	1/12/2018	NM	98.61	NA	NA	3,069.80
	4/2/2018	NM	98.80	NA	NA	3,069.61
	07/02/18	NM	98.74	NA	NA	3,069.67
	10/1/2018	NM	98.88	NA	NA	3,069.53
	1/8/2019	NM	98.90	NA	NA	3,069.51
	4/10/2019	NM	98.83	NA	NA	3,069.58
	7/10/2019	127.89	98.88	NA	NA	3,069.53
	10/9/2019	NM	98.94	NA	NA	3,069.47
MW-14						
3,182.69	8/7/2015	NM	106.69	NA	NA	3,076.00
	1/25/2016	124.62	106.78	NA	NA	3,075.91
	7/21/2016	NM	106.90	NA	NA	3,075.79
	1/11/2017	NM	106.78	NA	NA	3,075.91
	4/10/2017	124.48	107.01	NA	NA	3,075.68
	7/13/2017	NM	106.88	NA	NA	3,075.81
	10/3/2017	NM	106.95	NA	NA	3,075.74
	1/12/2018	NM	106.85	NA	NA	3,075.84
	4/2/2018	NM	107.00	NA	NA	3,075.69
	07/02/18	NM	106.91	NA	NA	3,075.78
	10/1/2018	NM	106.98	NA	NA	3,075.71
	1/8/2019	NM	106.97	NA	NA	3,075.72
	4/9/2019	NM	106.96	NA	NA	3,075.73
	7/10/2019	124.43	107.00	NA	NA	3,075.69
	10/9/2019	NM	106.96	NA	NA	3,075.73
MW-15						
3,184.55	8/7/2015	NM	104.29	NA	NA	3,080.26
	1/25/2016	126.36	104.56	NA	NA	3,079.99
	7/21/2016	NM	104.60	NA	NA	3,079.95
	1/11/2017	NM	104.45	NA	NA	3,080.10
	4/10/2017	NM	104.76	NA	NA	3,079.79
	7/13/2017	NM	104.52	NA	NA	3,080.03
	10/3/2017	NM	104.66	NA	NA	3,079.89
	1/12/2018	NM	104.45	NA	NA	3,080.10
	4/2/2018	NM	104.63	NA	NA	3,079.92
	07/02/18	NM	104.56	NA	NA	3,079.99
	10/1/2018	NM	104.57	NA	NA	3,079.98
	1/8/2019	NM	104.54	NA	NA	3,080.01
	4/10/2019	NM	104.50	NA	NA	3,080.05
	7/10/2019	126.59	104.49	NA	NA	3,080.06
	10/9/2019	NM	104.35	NA	NA	3,080.20
MW-16						
3,167.93	8/7/2015	NM	99.76	NA	NA	3,068.17
	1/25/2016	119.30	99.86	NA	NA	3,068.07
	7/21/2016	NM	100.02	NA	NA	3,067.91
	1/11/2017	NM	99.88	NA	NA	3,068.05
	4/10/2017	119.07	100.03	NA	NA	3,067.90
	7/13/2017	NM	99.94	NA	NA	3,067.99
	10/3/2017	NM	100.01	NA	NA	3,067.92
	1/12/2018	NM	99.83	NA	NA	3,068.10
	4/2/2018	NM	99.97	NA	NA	3,067.96
	07/02/18	NM	99.92	NA	NA	3,068.01
	10/1/2018	NM	99.93	NA	NA	3,068.00
	1/8/2019	NM	99.86	NA	NA	3,068.07
	4/10/2019	NM	99.86	NA	NA	3,068.07
	7/10/2019	119.06	99.83	NA	NA	3,068.10
	10/9/2019	NM	99.72	NA	NA	3,068.21

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-17						
3,147.44	8/7/2015	NM	83.74	NA	NA	3,063.70
	1/25/2016	118.27	84.18	NA	NA	3,063.26
	7/20/2016	NM	82.79	NA	NA	3,064.65
	1/11/2017	NM	83.75	NA	NA	3,063.69
	4/10/2017	118.26	84.27	NA	NA	3,063.17
	7/13/2017	NM	84.06	NA	NA	3,063.38
	10/3/2017	NM	84.08	NA	NA	3,063.36
	1/12/2018	NM	83.79	NA	NA	3,063.65
	4/2/2018	NM	84.26	NA	NA	3,063.18
	07/02/18	NM	84.32	NA	NA	3,063.12
	10/1/2018	NM	84.41	NA	NA	3,063.03
	1/8/2019	NM	84.25	NA	NA	3,063.19
	4/10/2019	NM	84.02	NA	NA	3,063.42
	7/10/2019	118.20	84.15	NA	NA	3,063.29
	10/9/2019	NM	84.09	NA	NA	3,063.35
MW-18						
3,155.01	8/7/2015	NM	95.94	NA	NA	3,059.07
	1/25/2016	122.40	95.81	NA	NA	3,059.20
	7/20/2016	NM	95.91	NA	NA	3,059.10
	1/12/2017	NM	95.82	NA	NA	3,059.19
	4/7/2017	122.37	95.76	NA	NA	3,059.25
	7/13/2017	NM	95.67	NA	NA	3,059.34
	10/3/2017	NM	95.87	NA	NA	3,059.14
	1/12/2018	NM	95.72	NA	NA	3,059.29
	4/2/2018	NM	95.80	NA	NA	3,059.21
	07/02/18	NM	95.74	NA	NA	3,059.27
	10/1/2018	NM	95.90	NA	NA	3,059.11
	1/8/2019	NM	95.88	NA	NA	3,059.13
	4/9/2019	NM	95.76	NA	NA	3,059.25
	7/10/2019	122.35	95.89	NA	NA	3,059.12
	10/9/2019	NM	95.84	NA	NA	3,059.17
MW-19						
3,149.90	8/7/2015	NM	99.58	NA	NA	3,050.32
	1/25/2016	115.04	99.68	NA	NA	3,050.22
	7/20/2016	NM	99.78	NA	NA	3,050.12
	1/12/2017	NM	99.68	NA	NA	3,050.22
	4/7/2017	115.03	99.78	NA	NA	3,050.12
	7/13/2017	NM	99.61	NA	NA	3,050.29
	10/3/2017	NM	99.83	NA	NA	3,050.07
	1/12/2018	NM	99.63	NA	NA	3,050.27
	4/2/2018	NM	99.69	NA	NA	3,050.21
	07/02/18	NM	99.85	NA	NA	3,050.05
	10/1/2018	NM	99.75	NA	NA	3,050.15
	1/8/2019	NM	99.78	NA	NA	3,050.12
	4/9/2019	NM	99.56	NA	NA	3,050.34
	7/10/2019	114.99	99.69	NA	NA	3,050.21
	10/9/2019	NM	99.54	NA	NA	3,050.36
MW-20						
3,120.09	8/7/2015	NM	88.96	NA	NA	3,031.13
	1/25/2016	112.91	88.96	NA	NA	3,031.13
	7/20/2016	NM	89.07	NA	NA	3,031.02
	1/12/2017	NM	89.00	NA	NA	3,031.09
	4/7/2017	112.65	88.97	NA	NA	3,031.12
	7/13/2017	NM	88.76	NA	NA	3,031.33
	10/3/2017	NM	88.88	NA	NA	3,031.21
	1/12/2018	NM	88.75	NA	NA	3,031.34
	4/2/2018	NM	88.67	NA	NA	3,031.42
	07/02/18	NM	88.69	NA	NA	3,031.40
	10/1/2018	NM	88.59	NA	NA	3,031.50
	1/8/2019	NM	88.57	NA	NA	3,031.52
	4/5/2019	NM	88.37	NA	NA	3,031.72
	7/9/2019	112.53	88.31	NA	NA	3,031.78
	10/8/2019	NM	88.19	NA	NA	3,031.90
MW-21						
3,159.65	7/21/2016	NM	92.31	NA	NA	3,067.34
	1/12/2017	NM	92.41	NA	NA	3,067.24
	4/10/2017	123.74	92.65	NA	NA	3,067.00
	7/13/2017	NM	92.55	NA	NA	3,067.10
	10/3/2017	NM	92.65	NA	NA	3,067.00
	1/12/2018	NM	92.47	NA	NA	3,067.18
	4/2/2018	NM	92.64	NA	NA	3,067.01
	07/02/18	NM	92.65	NA	NA	3,067.00
	10/1/2018	NM	92.74	NA	NA	3,066.91
	1/8/2019	NM	92.73	NA	NA	3,066.92
	4/10/2019	NM	92.64	NA	NA	3,067.01
	7/10/2019	123.75	92.70	NA	NA	3,066.95
	10/9/2019	Nm	92.61	NA	NA	3,067.04

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-22						
3,152.50	4/10/2017	117.94	87.78	NA	NA	3,064.72
	7/13/2017	NM	87.64	NA	NA	3,064.86
	10/3/2017	NM	87.71	NA	NA	3,064.79
	1/12/2018	NM	87.50	NA	NA	3,065.00
	4/2/2018	NM	87.75	NA	NA	3,064.75
	07/02/18	NM	87.75	NA	NA	3,064.75
	10/1/2018	NM	87.85	NA	NA	3,064.65
	1/8/2019	NM	87.90	NA	NA	3,064.60
	4/10/2019	NM	87.79	NA	NA	3,064.71
	7/10/2019	114.81	87.93	NA	NA	3,064.57
	10/9/2019	NM	87.80	NA	NA	3,064.70
MW-23						
3,151.66	7/21/2016	NM	87.03	NA	NA	3,064.63
	1/11/2017	NM	86.74	NA	NA	3,064.92
	4/10/2017	124.94	87.02	NA	NA	3,064.64
	7/13/2017	NM	86.86	NA	NA	3,064.80
	10/3/2017	NM	86.95	NA	NA	3,064.71
	1/12/2018	NM	86.75	NA	NA	3,064.91
	4/2/2018	NM	86.98	NA	NA	3,064.68
	07/02/18	NM	86.98	NA	NA	3,064.68
	10/1/2018	NM	87.08	NA	NA	3,064.58
	1/8/2019	NM	87.17	NA	NA	3,064.49
	4/10/2019	NM	87.02	NA	NA	3,064.64
	7/10/2019	104.97	87.12	NA	NA	3,064.54
	10/9/2019	NM	87.06	NA	NA	3,064.60
MW-24						
3,144.88	7/20/2016	NM	95.02	NA	NA	3,049.86
	1/12/2017	NM	95.11	NA	NA	3,049.77
	4/7/2017	115.39	95.15	NA	NA	3,049.73
	7/13/2017	NM	95.11	NA	NA	3,049.77
	10/3/2017	NM	95.33	NA	NA	3,049.55
	1/12/2018	NM	95.18	NA	NA	3,049.70
	4/2/2018	NM	95.23	NA	NA	3,049.65
	07/02/18	NM	95.12	NA	NA	3,049.76
	10/1/2018	NM	95.25	NA	NA	3,049.63
	1/8/2019	NM	95.22	NA	NA	3,049.66
	4/9/2019	NM	95.05	NA	NA	3,049.83
	7/9/2019	115.43	95.08	NA	NA	3,049.80
	10/8/2019	NM	95.03	NA	NA	3,049.85
MW-25						
3,165.45	7/21/2016	NM	103.05	NA	NA	3,062.40
	1/11/2017	NM	103.00	NA	NA	3,062.45
	4/10/2017	116.81	103.26	NA	NA	3,062.19
	7/13/2017	NM	103.17	NA	NA	3,062.28
	10/3/2017	NM	103.20	NA	NA	3,062.25
	1/12/2018	NM	103.04	NA	NA	3,062.41
	4/2/2018	NM	103.50	NA	NA	3,061.95
	07/02/18	NM	103.29	NA	NA	3,062.16
	10/1/2018	NM	103.34	NA	NA	3,062.11
	1/8/2019	NM	103.39	NA	NA	3,062.06
	4/9/2019	NM	103.28	NA	NA	3,062.17
	7/10/2019	116.79	103.38	NA	NA	3,062.07
	10/9/2019	NM	103.31	NA	NA	3,062.14
MW-26						
3,136.99	1/12/2017	NM	93.78	NA	NA	3,043.21
	4/7/2017	108.41	93.83	NA	NA	3,043.16
	7/13/2017	NM	93.75	NA	NA	3,043.24
	10/3/2017	NM	94.00	NA	NA	3,042.99
	1/12/2018	NM	93.76	NA	NA	3,043.23
	4/2/2018	NM	93.89	NA	NA	3,043.10
	07/02/18	NM	94.00	NA	NA	3,042.99
	10/1/2018	NM	93.91	NA	NA	3,043.08
	1/6/2019	NM	93.88	NA	NA	3,043.11
	4/9/2019	NM	93.74	NA	NA	3,043.25
	7/9/2019	108.37	93.76	NA	NA	3,043.23
	10/8/2019	NM	93.61	NA	NA	3,043.38
MW-27						
3,126.99	7/20/2016	NM	91.61	NA	NA	3,035.38
	1/11/2017	NM	91.40	NA	NA	3,035.59
	4/7/2017	108.40	91.65	NA	NA	3,035.34
	7/13/2017	NM	91.60	NA	NA	3,035.39
	10/3/2017	NM	91.80	NA	NA	3,035.19
	1/12/2018	NM	91.78	NA	NA	3,035.21
	4/2/2018	NM	92.08	NA	NA	3,034.91
	07/02/18	NM	91.98	NA	NA	3,035.01
	10/1/2018	NM	92.07	NA	NA	3,034.92
	1/8/2019	NM	91.86	NA	NA	3,035.13
	4/5/2019	NM	91.70	NA	NA	3,035.29
	7/9/2019	108.04	91.66	NA	NA	3,035.33
	10/8/2019	NM	91.50	NA	NA	3,035.49
MW-28						
3,093.86	1/10/2017	NM	83.60	NA	NA	3,010.26
	4/7/2017	104.02	83.74	NA	NA	3,010.12
	7/13/2017	NM	83.78	NA	NA	3,010.08
	10/3/2017	NM	83.79	NA	NA	3,010.07
	1/12/2018	NM	83.84	NA	NA	3,010.02
	4/2/2018	NM	83.84	NA	NA	3,010.02
	07/02/18	NM	83.89	NA	NA	3,009.97
	10/1/2018	NM	83.62	NA	NA	3,010.24
	1/9/2019	NM	83.79	NA	NA	3,010.07
	4/9/2019	NM	83.89	NA	NA	3,009.97
	7/9/2019	103.95	83.93	NA	NA	3,009.93
	10/8/2019	NM	83.93	NA	NA	3,009.93

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-29						
3,098.60	1/10/2017	NM	99.85	NA	NA	2,998.75
	4/7/2017	113.55	99.97	NA	NA	2,998.63
	7/13/2017	NM	100.00	NA	NA	2,998.60
	10/3/2017	NM	99.95	NA	NA	2,998.65
	1/12/2018	NM	100.08	NA	NA	2,998.52
	4/2/2018	NM	100.17	NA	NA	2,998.43
	07/02/18	NM	100.16	NA	NA	2,998.44
	10/1/2018	NM	100.11	NA	NA	2,998.49
	1/7/2019	NM	100.04	NA	NA	2,998.56
	4/5/2019	NM	100.21	NA	NA	2,998.39
	7/9/2019	113.41	100.25	NA	NA	2,998.35
	10/8/2019	NM	100.22	NA	NA	2,998.38
MW-30						
3,170.95	7/13/2017	NM	103.41	NA	NA	3,067.54
	10/3/2017	NM	103.57	NA	NA	3,067.38
	1/12/2018	NM	103.19	NA	NA	3,067.76
	4/2/2018	NM	103.71	NA	NA	3,067.24
	07/02/18	NM	103.46	NA	NA	3,067.49
	10/1/2018	NM	103.58	NA	NA	3,067.37
	1/8/2019	NM	103.67	NA	NA	3,067.28
	4/10/2019	NM	103.52	NA	NA	3,067.43
	7/10/2019	123.89	103.66	NA	NA	3,067.29
	10/9/2019	NM	103.48	NA	NA	3,067.47
MW-31						
3,145.41	7/13/2017	NM	94.50	NA	NA	3,050.91
	10/3/2017	NM	94.74	NA	NA	3,050.67
	1/12/2018	NM	94.60	NA	NA	3,050.81
	4/2/2018	NM	94.60	NA	NA	3,050.81
	07/02/18	NM	94.50	NA	NA	3,050.91
	10/1/2018	NM	94.62	NA	NA	3,050.79
	1/8/2019	NM	94.59	NA	NA	3,050.82
	4/5/2019	NM	94.42	NA	NA	3,050.99
	7/9/2019	102.57	94.46	NA	NA	3,050.95
	10/8/2019	NM	94.40	NA	NA	3,051.01
MW-32						
3,090.28	4/10/2019	94.04	81.18	NA	NA	3,009.10
	7/9/2019	93.44	81.39	NA	NA	3,008.89
	10/8/2019	NM	81.42	NA	NA	3.008.86
MW-33						
3,080.02	4/10/2019	92.98	76.84	NA	NA	3,003.18
	7/9/2019	92.97	77.00	NA	NA	3,003.02
	10/8/2019	NM	77.09	NA	NA	3,002.93
MW-34						
3,069.95	4/10/2019	78.04	71.21	NA	NA	2,998.74
	7/9/2019	78.03	71.42	NA	NA	2,998.53
	10/8/2019	NM	71.45	NA	NA	2,998.50
NM-MW-1						
3,124.90	12/2/2015	NM	72.01	NA	NA	3,052.89
	1/25/2016	106.86	72.01	NA	NA	3,052.89
	7/22/2016	NM	71.90	NA	NA	3,053.00
	1/12/2017	NM	71.73	NA	NA	3,053.17
	4/7/2017	106.36	71.78	NA	NA	3,053.12
	7/13/2017	NM	71.67	NA	NA	3,053.23
	10/3/2017	NM	71.65	NA	NA	3,053.25
	1/12/2018	NM	71.63	NA	NA	3,053.27
	4/2/2018	NM	71.66	NA	NA	3,053.24
	07/02/18	NM	70.65	NA	NA	3,054.25
	10/1/2018	NM	71.71	NA	NA	3,053.19
	1/7/2019	NM	71.63	NA	NA	3,053.27
	4/4/2019	NM	71.61	NA	NA	3,053.29
	7/8/2019	105.91	71.58	NA	NA	3,053.32
	10/7/2019	NM	71.76	NA	NA	3,053.14
NM-MW-2						
3,152.86	12/2/2015	NM	96.14	NA	NA	3,056.72
	1/25/2016	120.55	96.38	NA	NA	3,056.48
	7/22/2016	NM	96.28	NA	NA	3,056.58
	1/12/2017	NM	96.20	NA	NA	3,056.66
	4/7/2017	120.60	96.49	NA	NA	3,056.37
	7/13/2017	NM	96.25	NA	NA	3,056.61
	10/3/2017	NM	96.17	NA	NA	3,056.69
	1/12/2018	NM	96.29	NA	NA	3,056.57
	4/2/2018	NM	96.18	NA	NA	3,056.68
	07/02/18	NM	96.42	NA	NA	3,056.44
	10/1/2018	NM	96.28	NA	NA	3,056.58
	1/7/2019	NM	96.14	NA	NA	3,056.72
	4/4/2019	NM	96.20	NA	NA	3,056.66
	7/8/2019	120.53	96.02	NA	NA	3,056.84
	10/7/2019	NM	96.30	NA	NA	3,056.56
NM-MW-3						
3,146.86	12/2/2015	NM	91.70	NA	NA	3,055.16
	1/25/2016	105.01	91.80	NA	NA	3,055.06
	7/22/2016	NM	91.81	NA	NA	3,055.05
	1/12/2017	NM	91.75	NA	NA	3,055.11
	4/7/2017	105.28	91.99	NA	NA	3,054.87
	7/13/2017	NM	91.92	NA	NA	3,054.94
	10/3/2017	NM	91.90	NA	NA	3,054.96
	1/12/2018	NM	91.93	NA	NA	3,054.93
	4/2/2018	NM	91.82	NA	NA	3,055.04
	07/02/18	NM	91.88	NA	NA	3,054.98
	10/1/2018	NM	91.78	NA	NA	3,055.08
	1/7/2019	NM	81.68	NA	NA	3,065.18
	4/4/2019	NM	91.70	NA	NA	3,055.16
	7/8/2019	105.31	91.55	NA	NA	3,055.31
	10/7/2019	NM	91.72	NA	NA	3,055.14

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-4						
3,154.21	12/2/2015	NM	110.59	NA	NA	3,043.62
	1/25/2016	116.91	110.46	NA	NA	3,043.75
	7/22/2016	NM	110.57	NA	NA	3,043.64
	1/12/2017	NM	110.40	NA	NA	3,043.81
	4/7/2017	117.19	110.52	NA	NA	3,043.69
	7/13/2017	NM	110.50	NA	NA	3,043.71
	10/3/2017	NM	110.52	NA	NA	3,043.69
	1/12/2018	NM	110.48	NA	NA	3,043.73
	4/2/2018	NM	110.55	NA	NA	3,043.66
	07/02/18	NM	110.38	NA	NA	3,043.83
	10/1/2018	NM	110.44	NA	NA	3,043.77
	1/7/2019	NM	110.34	NA	NA	3,043.87
	4/4/2019	NM	110.36	NA	NA	3,043.85
	7/8/2019	117.12	110.27	NA	NA	3,043.94
	10/7/2019	NM	110.35	NA	NA	3,043.86
NM-MW-5						
3,109.14	12/2/2015	NM	DRY	NA	NA	DRY
	1/25/2016	115.00	99.95	NA	NA	3,009.19
	7/22/2016	NM	99.78	NA	NA	3,009.36
	1/12/2017	NM	99.70	NA	NA	3,009.44
	4/7/2017	114.92	99.66	NA	NA	3,009.48
	7/13/2017	NM	99.80	NA	NA	3,009.34
	10/32017	NM	99.69	NA	NA	3,009.45
	1/12/2018	NM	99.80	NA	NA	3,009.34
	4/2/2018	NM	99.76	NA	NA	3,009.38
	07/02/18	NM	99.82	NA	NA	3,009.32
	10/1/2018	NM	99.89	NA	NA	3,009.25
	1/7/2019	NM	99.61	NA	NA	3,009.53
	4/4/2019	NM	99.74	NA	NA	3,009.40
	7/8/2019	114.43	99.94	NA	NA	3,009.20
	10/7/2019	NM	99.78	NA	NA	3,009.36
NM-MW-6						
3,093.23	12/2/2015	NM	86.98	NA	NA	3,006.25
	1/25/2016	123.21	86.93	NA	NA	3,006.30
	7/22/2016	NM	87.10	NA	NA	3,006.13
	1/12/2017	NM	87.35	NA	NA	3,005.88
	4/7/2017	123.16	87.42	NA	NA	3,005.81
	7/13/2017	NM	87.47	NA	NA	3,005.76
	10/3/2017	NM	87.47	NA	NA	3,005.76
	1/12/2018	NM	87.57	NA	NA	3,005.66
	4/2/2018	NM	87.53	NA	NA	3,005.70
	07/02/18	NM	87.66	NA	NA	3,005.57
	10/1/2018	NM	87.70	NA	NA	3,005.53
	1/7/2019	NM	87.64	NA	NA	3,005.59
	4/4/2019	NM	87.81	NA	NA	3,005.42
	7/8/2019	121.02	87.77	NA	NA	3,005.46
	10/7/2019	NM	87.89	NA	NA	3,005.34
NM-MW-7						
3,147.67	12/2/2015	NM	96.71	NA	NA	3,050.96
	1/25/2016	105.52	96.79	NA	NA	3,050.88
	7/22/2016	NM	96.91	NA	NA	3,050.76
	1/12/2017	NM	96.80	NA	NA	3,050.87
	4/7/2017	105.89	97.20	NA	NA	3,050.47
	7/13/2017	NM	97.12	NA	NA	3,050.55
	10/3/2017	NM	96.73	NA	NA	3,050.94
	1/12/2018	NM	96.40	NA	NA	3,051.27
	4/2/2018	NM	96.26	NA	NA	3,051.41
	07/02/18	NM	96.13	NA	NA	3,051.54
	10/1/2018	NM	96.07	NA	NA	3,051.60
	1/7/2019	NM	95.88	NA	NA	3,051.79
	4/4/2019	NM	95.91	NA	NA	3,051.76
	7/8/2019	105.92	95.75	NA	NA	3,051.92
	10/7/2019	NM	95.88	NA	NA	3,051.79
NM-MW-8						
3,138.62	4/7/2017	108.33	98.63	NA	NA	3,039.99
	7/13/2017	NM	98.49	NA	NA	3,040.13
	10/3/2017	NM	98.42	NA	NA	3,040.20
	1/12/2018	NM	98.34	NA	NA	3,040.28
	4/2/2018	NM	98.35	NA	NA	3,040.27
	07/02/18	NM	98.22	NA	NA	3,040.40
	10/1/2018	NM	98.16	NA	NA	3,040.46
	1/7/2019	NM	98.03	NA	NA	3,040.59
	4/4/2019	NM	98.01	NA	NA	3,040.61
	7/8/2019	108.33	97.83	NA	NA	3,040.79
	10/7/2019	NM	97.89	NA	NA	3,040.73
NM-MW-9						
3,118.18	4/7/2017	96.79	96.73	NA	NA	3,021.45
	7/13/2017	NM	95.58	NA	NA	3,022.60
	10/3/2017	NM	95.37	NA	NA	3,022.81
	1/12/2018	NM	94.94	NA	NA	3,023.24
	4/2/2018	NM	94.71	NA	NA	3,023.47
	07/02/18	NM	94.60	NA	NA	3,023.58
	10/1/2018	NM	94.60	NA	NA	3,023.58
	1/7/2019	NM	94.39	NA	NA	3,023.79
	4/5/2019	NM	97.37	NA	NA	3,020.81
	7/8/2019	96.77	94.21	NA	NA	3,023.97
	10/7/2019	NM	94.17	NA	NA	3,024.01
NM-MW-10						
3,066.32	1/10/2017	NM	78.94	NA	NA	2,987.38
	4/7/2017	108.10	79.02	NA	NA	2,987.30
	7/13/2017	NM	79.09	NA	NA	2,987.23
	10/3/2017	NM	79.12	NA	NA	2,987.20
	1/12/2018	NM	79.15	NA	NA	2,987.17
	4/2/2018	NM	79.23	NA	NA	2,987.09
	07/02/18	NM	79.24	NA	NA	2,987.08
	10/1/2018	NM	79.32	NA	NA	2,987.00
	1/7/2019	NM	79.27	NA	NA	2,987.05
	4/4/2019	NM	79.37	NA	NA	2,986.95
	7/8/2019	108.43	79.42	NA	NA	2,986.90
	10/7/2019	NM	79.48	NA	NA	2,986.84

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-11						
3,075.44	1/10/2017	NM	150.11	NA	NA	2,925.33
	4/7/2017	163.56	127.16	NA	NA	2,948.28
	7/13/2017	NM	107.66	NA	NA	2,967.78
	10/3/2017	NM	97.78	NA	NA	2,977.66
	1/12/2018	NM	90.89	NA	NA	2,984.55
	4/2/2018	NM	87.75	NA	NA	2,987.69
	07/02/18	NM	86.07	NA	NA	2,989.37
	10/1/2018	NM	84.80	NA	NA	2,990.64
	1/7/2019	NM	83.28	NA	NA	2,992.16
	4/4/2019	NM	82.82	NA	NA	2,992.62
	7/8/2019	163.02	82.94	NA	NA	2,992.50
	10/8/2019	NM	82.97	NA	NA	2,992.47
NM-MW-12						
3,105.47	4/7/2017	98.54	96.70	NA	NA	3,008.77
	7/13/2017	NM	96.72	NA	NA	3,008.75
	10/3/2017	NM	96.69	NA	NA	3,008.78
	1/12/2018	NM	96.67	NA	NA	3,008.80
	4/2/2018	NM	96.71	NA	NA	3,008.76
	07/02/18	NM	96.68	NA	NA	3,008.79
	10/1/2018	NM	96.67	NA	NA	3,008.80
	1/7/2019	NM	96.51	NA	NA	3,008.96
	4/4/2019	NM	96.60	NA	NA	3,008.87
	7/8/2019	98.52	96.61	NA	NA	3,008.86
	10/7/2019	NM	96.64	NA	NA	3,008.83
NM-MW-13						
3,051.17	4/7/2017	111.80	84.04	NA	NA	2,967.13
	7/13/2017	NM	84.05	NA	NA	2,967.12
	10/3/2017	NM	84.10	NA	NA	2,967.07
	1/12/2018	NM	84.12	NA	NA	2,967.05
	4/2/2018	NM	84.15	NA	NA	2,967.02
	07/02/18	NM	84.15	NA	NA	2,967.02
	10/1/2018	NM	84.24	NA	NA	2,966.93
	1/7/2019	NM	84.15	NA	NA	2,967.02
	4/4/2019	NM	84.27	NA	NA	2,966.90
	7/8/2019	111.74	84.29	NA	NA	2,966.88
	10/8/2019	NM	84.37	NA	NA	2,966.80
Non-Remedial Wells						
Livermore						
NM	12/07/06	111.60	95.96	NA	NA	NA
	02/13/07	110.72	95.08	NA	NA	NA
	02/28/07	NM	95.08	NA	NA	NA
	07/30/07	110.72	95.71	NA	NA	NA
	07/09/08	110.72	94.89	NA	NA	NA
	01/28/09	110.81	94.81	NA	NA	NA
	08/28/09	111.11	95.08	NA	NA	NA
	02/19/10	NM	94.70	NA	NA	NA
	08/16/10	NM	94.67	NA	NA	NA
	02/11/11	NM	95.00	NA	NA	NA
	07/31/13	104.21	95.29	NA	NA	NA
	07/16/14	NM	95.85	NA	NA	NA
	01/25/16	104.23	95.20	NA	NA	NA
	07/21/16	NM	95.30	NA	NA	NA
	01/11/17	NM	95.10	NA	NA	NA
	07/13/17	NM	95.17	NA	NA	NA
	10/03/17	NM	95.27	NA	NA	NA
	01/12/18	NM	94.97	NA	NA	NA
	04/02/18	NM	94.97	NA	NA	NA
	07/02/18	NM	95.19	NA	NA	NA
	10/1/2018	NM	95.26	NA	NA	NA
	1/8/2019	NM	95.27	NA	NA	NA
	4/10/2019	NM	95.27	NA	NA	NA
	7/10/2019	NM	95.40	NA	NA	NA
	10/9/2019	NM	95.28	NA	NA	NA
Pure Water Tower						
3,154.43	06/18/11	137.00	87.30	NA	NA	3,067.13
Pure Water Well						
3,151.80	08/16/12	104.80	88.00	NA	NA	3,063.80
	08/30/13	100.50	88.35	NA	NA	3,063.45
	07/14/15	NM	88.35	NA	NA	3,063.45
RRR Ranch Windmill						
NM	08/28/09	117.05	95.05	NA	NA	NA
	07/22/16	NM	94.36	NA	NA	NA
	01/12/17	NM	94.28	NA	NA	NA
	07/13/17	99.61	94.37	NA	NA	NA
	10/03/17	NM	94.34	NA	NA	NA
	01/12/18	NM	94.24	NA	NA	NA
	04/02/18	NM	94.24	NA	NA	NA
	07/02/18	NM	94.14	NA	NA	NA
	10/1/2018	NM	94.08	NA	NA	NA
	1/7/2019	NM	93.95	NA	NA	NA
	4/4/2019	NM	93.95	NA	NA	NA
	7/8/2019	96.44	93.82	NA	NA	NA
	10/7/2019	NM	93.91	NA	NA	NA
TRAC-4						
NM	NA	NM	NM	NA	NA	NA
TRAC-8						
NM	NA	NM	NM	NA	NA	NA
Wilson Ranch Well						
NM	NA	NM	NM	NA	NA	NA

Notes:
[1] Formula for Adjusted Groundwater Elevation: TOC - Depth to Water + 0.75(LNAPL thickness).
ft = feet
NAVD = North American Vertical Datum
TOC = top of casing
LNAPL = light non-aqueous phase liquid
NM = Not Measured
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix B
Groundwater Sample Analytical Laboratory Reports

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 25, 2019

GHD Services, Inc. - Houston, TX

Sample Delivery Group:	L1151971
Samples Received:	10/19/2019
Project Number:	055270
Description:	Dollarhide

Report To: Chris Knight
11451 Katy Freeway, Ste 400
Houston, TX 77079

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

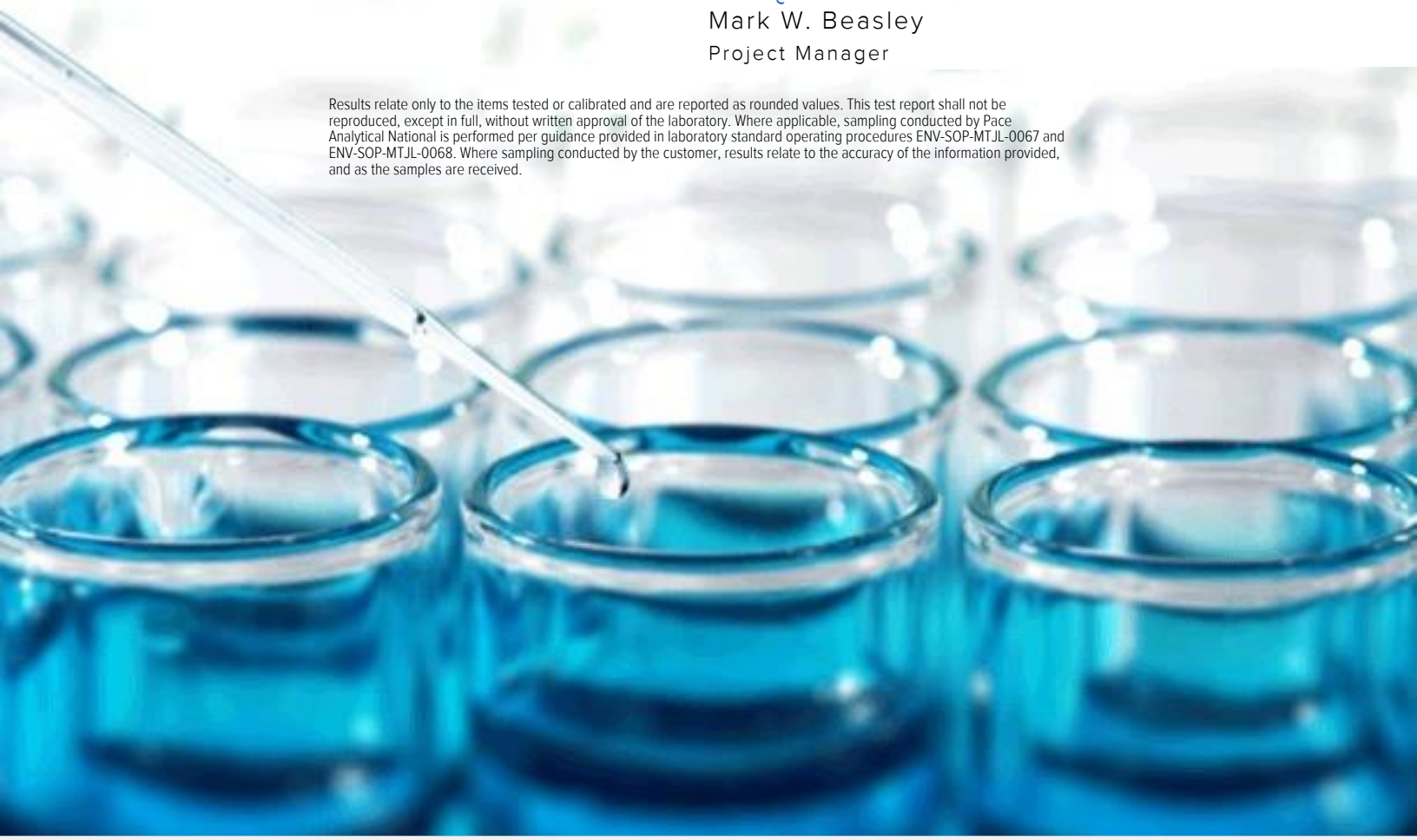


TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Tr: TRRP Summary 6

TRRP form R 7

TRRP form S 8

TRRP Exception Reports 9

Sr: Sample Results 10

NM-MW-1-W-191510 L1151971-01 10

NM-MW-6-W-191510 L1151971-02 11

NM-MW-8-W-191510 L1151971-03 12

NM-MW-9-W-191510 L1151971-04 13

MW-9-W-191610 L1151971-05 14

MW-8-W-191610 L1151971-06 15

MW-24-W-191610 L1151971-07 16

MW-12-W-191610 L1151971-08 17

MW-31-W-191610 L1151971-09 18

MW-18-W-191610 L1151971-10 19

MW-25-W-191710 L1151971-11 20

MW-22-W-191710 L1151971-12 21

Qc: Quality Control Summary 22

Gravimetric Analysis by Method 2540 C-2011 22

Wet Chemistry by Method 9056A 24

Gl: Glossary of Terms 26

Al: Accreditations & Locations 27

Sc: Sample Chain of Custody 28

NM-MW-1-W-191510 L1151971-01 GW

Collected by: Joe Mireles | Collected date/time: 10/15/19 11:55 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	10	10/22/19 00:13	10/22/19 00:13	ST	Mt. Juliet, TN

NM-MW-6-W-191510 L1151971-02 GW

Collected by: Joe Mireles | Collected date/time: 10/15/19 12:15 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	5	10/22/19 00:26	10/22/19 00:26	ST	Mt. Juliet, TN

NM-MW-8-W-191510 L1151971-03 GW

Collected by: Joe Mireles | Collected date/time: 10/15/19 11:10 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	100	10/22/19 00:39	10/22/19 00:39	ST	Mt. Juliet, TN

NM-MW-9-W-191510 L1151971-04 GW

Collected by: Joe Mireles | Collected date/time: 10/15/19 13:25 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	10	10/22/19 01:30	10/22/19 01:30	ST	Mt. Juliet, TN

MW-9-W-191610 L1151971-05 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 11:40 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	100	10/22/19 02:21	10/22/19 02:21	ST	Mt. Juliet, TN

MW-8-W-191610 L1151971-06 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 12:00 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	20	10/22/19 02:34	10/22/19 02:34	ST	Mt. Juliet, TN

MW-24-W-191610 L1151971-07 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 13:00 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	100	10/22/19 02:46	10/22/19 02:46	ST	Mt. Juliet, TN

MW-12-W-191610 L1151971-08 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 13:10 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	500	10/22/19 02:59	10/22/19 02:59	ST	Mt. Juliet, TN

MW-31-W-191610 L1151971-09 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 13:25 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	500	10/22/19 03:12	10/22/19 03:12	ST	Mt. Juliet, TN

MW-18-W-191610 L1151971-10 GW

Collected by: Joe Mireles | Collected date/time: 10/16/19 14:00 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366091	1	10/20/19 10:31	10/20/19 11:10	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	500	10/22/19 03:25	10/22/19 03:25	ST	Mt. Juliet, TN

MW-25-W-191710 L1151971-11 GW

Collected by: Joe Mireles | Collected date/time: 10/17/19 11:05 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366092	1	10/20/19 11:44	10/20/19 12:04	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	500	10/22/19 03:38	10/22/19 03:38	ST	Mt. Juliet, TN

MW-22-W-191710 L1151971-12 GW

Collected by: Joe Mireles | Collected date/time: 10/17/19 14:00 | Received date/time: 10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366092	1	10/20/19 11:44	10/20/19 12:04	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366494	500	10/22/19 03:50	10/22/19 03:50	ST	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/25/2019 16:22
Project Name: Dollarhide	Laboratory Job Number: L1151971-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092, WG1366091 and WG1366494

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?		X			1
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			2
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?		X			3
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Name: Pace Analytical National	LRC Date: 10/25/2019 16:22
Project Name: Dollarhide	Laboratory Job Number: L1151971-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092, WG1366091 and WG1366494

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 10/25/2019 16:22
Project Name: Dollarhide	Laboratory Job Number: L1151971-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092, WG1366091 and WG1366494

ER #[1]	Description
1	WG1366494 R3463853-6 and 7: The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
2	9056A WG1366494 Chloride: Percent Recovery is outside of established control limits.
3	2540 C-2011 WG1366091 Dissolved Solids: Relative Percent Difference is outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	1390		5.64	20.0	20.0	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	279		0.519	1.00	10.0	10	10/22/2019 00:13	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	773		3.75	13.3	13.3	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	142		0.260	1.00	5.00	5	10/22/2019 00:26	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	10600		5.64	20.0	20.0	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	5890		5.19	1.00	100	100	10/22/2019 00:39	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	844		3.75	13.3	13.3	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	258		0.519	1.00	10.0	10	10/22/2019 01:30	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6240	J3	28.2	100	100	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Chloride	2530		5.19	1.00	100	100	10/22/2019 02:21	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	2080		14.1	50.0	50.0	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	874		1.04	1.00	20.0	20	10/22/2019 02:34	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	12400		28.2	100	100	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	2570		5.19	1.00	100	100	10/22/2019 02:46	WG1366494

MW-12-W-191016
Collected date/time: 10/16/19 13:10
L1151971

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	31000		113	400	400	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	13100		26.0	1.00	500	500	10/22/2019 02:59	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	29200		113	400	400	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Chloride	10400		26.0	1.00	500	500	10/22/2019 03:12	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	48900		141	500	500	1	10/20/2019 11:10	WG1366091

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	22300		26.0	1.00	500	500	10/22/2019 03:25	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	64100		141	500	500	1	10/20/2019 12:04	WG1366092

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	23200		26.0	1.00	500	500	10/22/2019 03:38	WG1366494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	33000		113	400	400	1	10/20/2019 12:04	WG1366092

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	12500		26.0	1.00	500	500	10/22/2019 03:50	WG1366494

Method Blank (MB)

(MB) R3463187-1 10/20/19 11:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1151971-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1151971-05 10/20/19 11:10 • (DUP) R3463187-3 10/20/19 11:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6240	7120	1	13.2	J3	5

Laboratory Control Sample (LCS)

(LCS) R3463187-2 10/20/19 11:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8300	94.3	85.0-115	

Received by OCD: 3/23/2023 11:36:17 AM

QUALITY CONTROL SUMMARY

L1151971-11,12

Method Blank (MB)

(MB) R3463181-1 10/20/19 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

Laboratory Control Sample (LCS)

(LCS) R3463181-2 10/20/19 12:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8110	92.2	85.0-115	

Released to Imaging: 11/21/2023 10:32:34 AM

Method Blank (MB)

(MB) R3463853-1 10/21/19 19:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.118	J	0.0519	1.00

L1151964-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1151964-01 10/21/19 22:18 • (DUP) R3463853-3 10/21/19 22:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.68	1.65	1	2.09		15

L1151971-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1151971-04 10/22/19 00:51 • (DUP) R3463853-6 10/22/19 01:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	244	244	1	0.262	E	15

L1151971-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1151971-04 10/22/19 01:30 • (DUP) R3463853-8 10/22/19 01:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	258	245	10	5.17		15

Laboratory Control Sample (LCS)

(LCS) R3463853-2 10/21/19 20:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.4	96.0	80.0-120	

L1151964-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1151964-01 10/21/19 22:18 • (MS) R3463853-4 10/21/19 22:44 • (MSD) R3463853-9 10/22/19 18:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1.68	52.9	53.0	102	103	1	80.0-120			0.349	15

L1151971-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1151971-04 10/22/19 00:51 • (MS) R3463853-7 10/22/19 01:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	244	282	75.8	1	80.0-120	E V

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

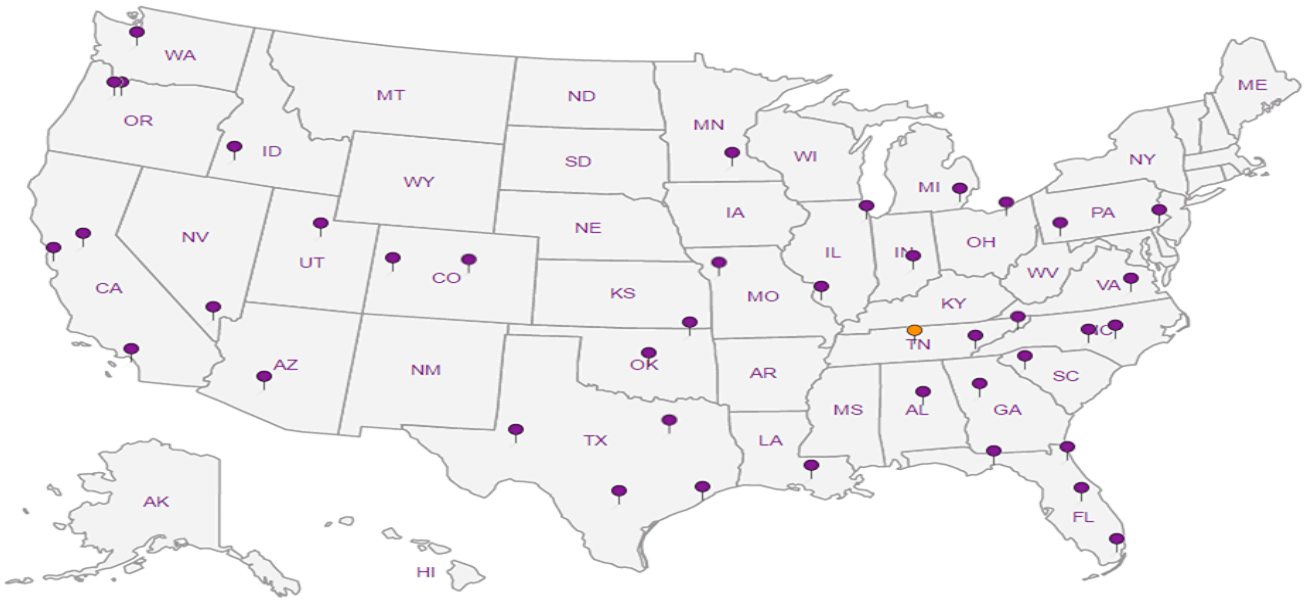
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Received by OCD: 3/23/2023 11:36:17 AM

Chain of Custody Page 1 of 2

GHD Services, Inc. - Houston, TX

11451 Katy Freeway, Ste 400
Houston, TX 77079

Billing Information:
Gina Blair
2055 Niagara Falls Blvd. Ste. 3
Niagara Falls, NY 14304

Report to: Chris Knight

Email To: Christopher.Knight@ghd.com, nick.casten@ghd.com, Brittany.White@ghd.com,

Project Description: Dollarhide

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: 713-731-3090
Fax:

Client Project # 055270

Lab Project # CRAHTX-055270

Collected by (print): Joe Mireles

Site/Facility ID #

P.O. #

Collected by (signature): Joe Mireles

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: per SSOW

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG 1151971
G165
Tat

Acctnum: CRAHTX
Template: T156720
Prelogin: P732572
PM: 134 - Mark W. Beasley
PB: TB 10-1-19
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
NM-MW-1-W-191510	G	GW	—	10-15	1155	2	X	X		-01
NM-MW-6-W-191510		GW			1215					-02
NM-MW-8-W-191510		GW			1110					-03
NM-MW-9-W-191510		GW		10-15	1325					-04
MW-9-W-191610		GW		10-16	1150					-05
MW-8-W-191610		GW			1200					-06
MW-24-W-191610					1300					-07
MW-12-W-191610					1310					-08
MW-31-W-191610					1325					-09
MW-18-W-191610	G	GW	—	10-16	1400	2	X	X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-18-19	1330	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-18-19	16:00	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 26-2=24°C Bottles Received: 24

Date: 10/19/19 Time: 800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Chain of Custody

Page 2 of 2

GHD Services, Inc. - Houston, TX

11451 Katy Freeway, Ste 400
Houston, TX 77079

Billing Information:
Gina Blair
2055 Niagara Falls Blvd. Ste. 3
Niagara Falls, NY 14304

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Chris Knight

Email To: Christopher.Knight@ghd.com, nick.casten@ghd.com, Brittany.White@ghd.com,

Project Description: Dollarhide

City/State Collected: Hobbs, NM

Please Circle: PT MT CT ET

Phone: 713-731-3090
Fax:

Client Project # 055270

Lab Project # CRAHTX-055270

SDG # 115971

Table #

Collected by (print): Joe Mireles

Site/Facility ID #

P.O. #

Collected by (signature): Joe Mireles

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: per SSOW

Quote #

Acctnum: CRAHTX
Template: T156720
Prelogin: P732572
PM: 134 - Mark W. Beasley
PB: TB 10-1-19
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-25-W-191010	G	GW	—	10-17	1105	3	X	X		-11
MW-22-W-191010	G	GW	—	10-17	1400	2	X	X		-12
		GW								
		GW								
		GW								
		GW								

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	10-18-19	1330		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	10-18-19	1600		2.6-2=24% 24
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				10/19/19 802

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:32:34 AM

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 23, 2019

GHD Services, Inc. - Houston, TX

Sample Delivery Group:	L1151976
Samples Received:	10/19/2019
Project Number:	055270
Description:	Dollarhide

Report To: Chris Knight
11451 Katy Freeway, Ste 400
Houston, TX 77079

Entire Report Reviewed By:

Mark W. Beasley
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

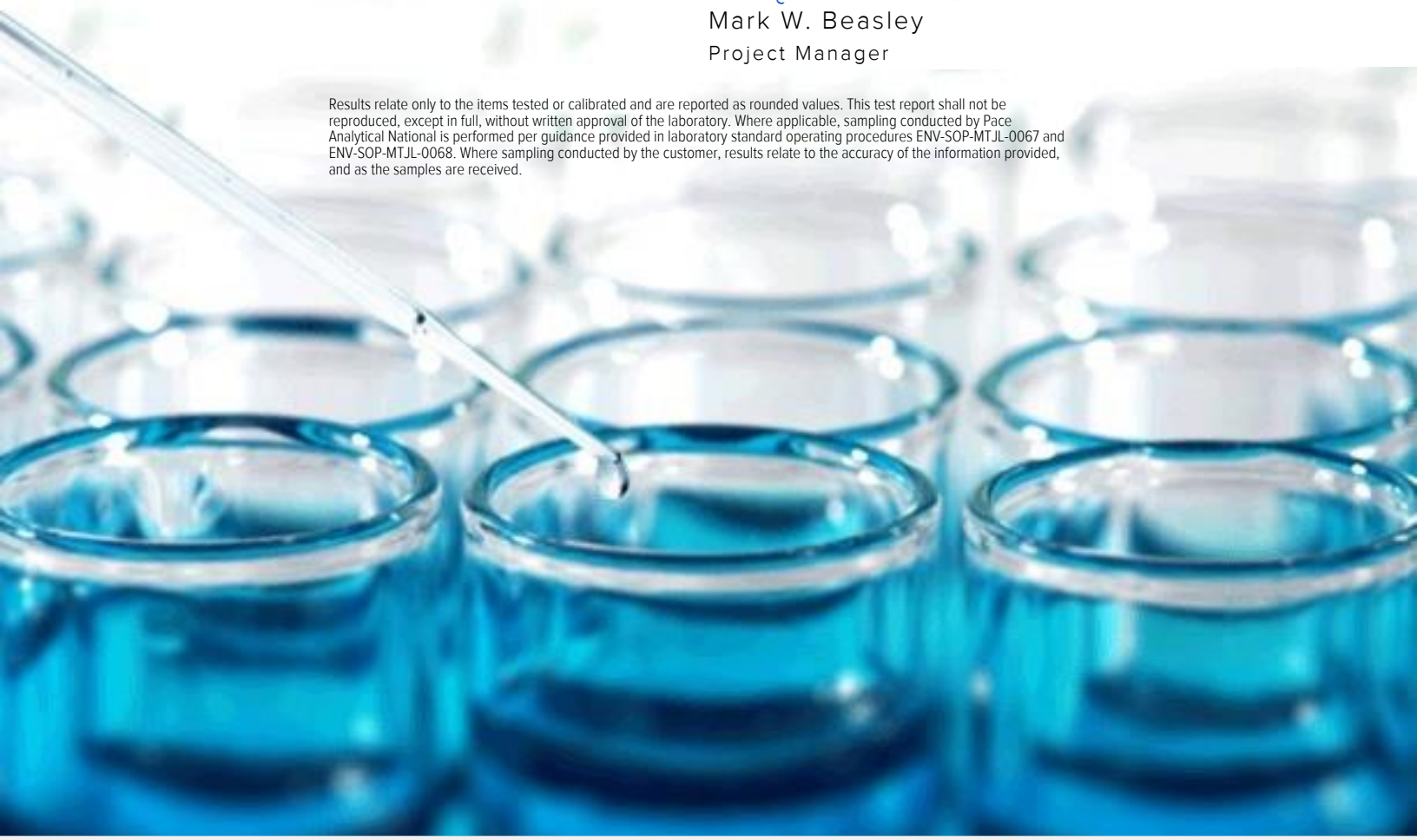


TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Tr: TRRP Summary 5

TRRP form R 6

TRRP form S 7

TRRP Exception Reports 8

Sr: Sample Results 9

NM-MW-13-W-191510 L1151976-01 9

Qc: Quality Control Summary 10

Gravimetric Analysis by Method 2540 C-2011 10

Wet Chemistry by Method 9056A 11

Gl: Glossary of Terms 12

Al: Accreditations & Locations 13

Sc: Sample Chain of Custody 14

SAMPLE SUMMARY

NM-MW-13-W-191510 L1151976-01 GW

Collected by	Collected date/time	Received date/time
Joe Mireles	10/15/19 12:45	10/19/19 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1366092	1	10/20/19 11:44	10/20/19 12:04	TH	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1366495	10	10/21/19 23:49	10/21/19 23:49	ST	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Mark W. Beasley
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Mark W. Beasley
Project Manager

Laboratory Name: Pace Analytical National	LRC Date: 10/23/2019 16:39
Project Name: Dollarhide	Laboratory Job Number: L1151976-01
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092 and WG1366495

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/23/2019 16:39
Project Name: Dollarhide	Laboratory Job Number: L1151976-01
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092 and WG1366495

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010

Laboratory Review Checklist: Exceptions Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/23/2019 16:39
Project Name: Dollarhide	Laboratory Job Number: L1151976-01
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1366092 and WG1366495

ER #[1]	Description
	The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Dissolved Solids	1060		5.64	20.0	20.0	1	10/20/2019 12:04	WG1366092

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Chloride	198		0.519	1.00	10.0	10	10/21/2019 23:49	WG1366495

Received by OCD: 3/23/2023 11:36:17 AM

Method Blank (MB)

(MB) R3463181-1 10/20/19 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

Laboratory Control Sample (LCS)

(LCS) R3463181-2 10/20/19 12:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8110	92.2	85.0-115	

Released to Imaging: 11/21/2023 10:32:34 AM

Method Blank (MB)

(MB) R3463786-1 10/21/19 10:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.0519	1.00

L1151551-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1151551-01 10/21/19 20:25 • (DUP) R3463786-3 10/21/19 20:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	12.8	12.9	1	1.28		15

L1151994-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1151994-01 10/22/19 00:53 • (DUP) R3463786-6 10/22/19 01:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4.93	4.97	1	0.854		15

Laboratory Control Sample (LCS)

(LCS) R3463786-2 10/21/19 10:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.9	99.9	80.0-120	

L1151721-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1151721-01 10/21/19 20:50 • (MS) R3463786-4 10/21/19 21:03 • (MSD) R3463786-5 10/21/19 21:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	16.0	66.3	68.5	101	105	1	80.0-120			3.25	15

L1151994-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1151994-01 10/22/19 00:53 • (MS) R3463786-7 10/22/19 01:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	4.93	57.2	105	1	80.0-120	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

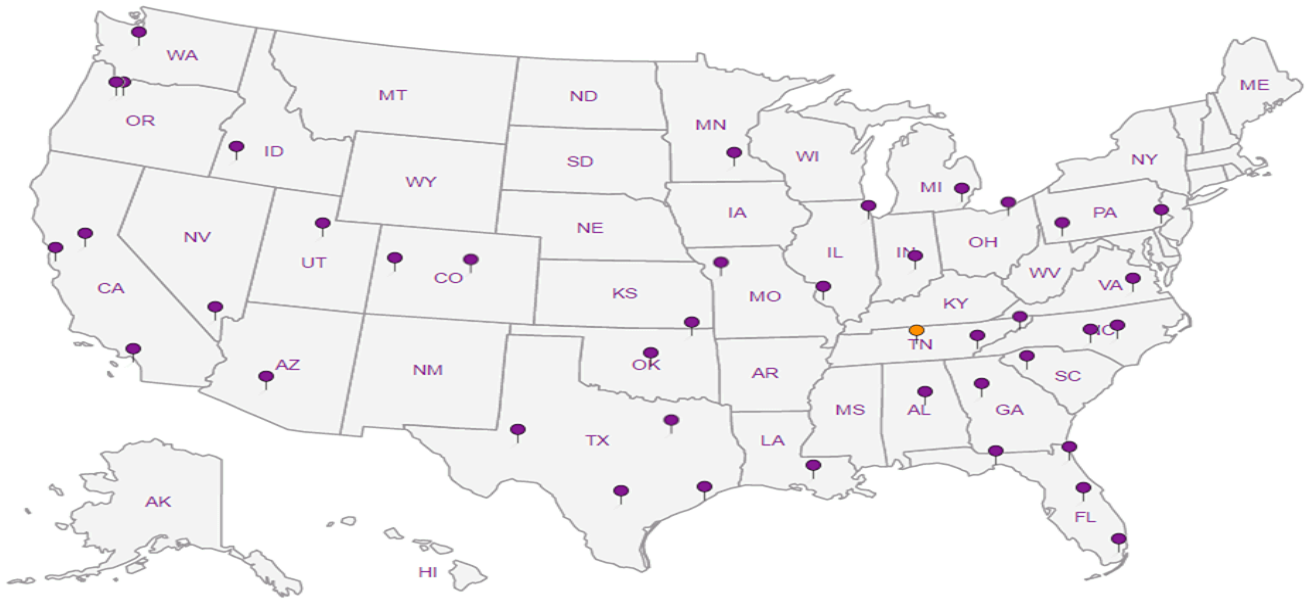
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



GHD Services, Inc. - Houston, TX

11451 Katy Freeway, Ste 400
Houston, TX 77079

Billing Information:
Gina Blair
2055 Niagara Falls Blvd. Ste. 3
Niagara Falls, NY 14304

Report to: Chris Knight

Email To: Christopher.Knight@ghd.com, nick.casten@ghd.com, Brittany.White@ghd.com,

Project Description: Dollarhide

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: 713-731-3090
Fax:

Client Project # 055270

Lab Project # CRAHTX-055270

Collected by (print): Joe Mireles

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: per SSOW

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Cl 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
NM-MW-13-W-191510	G	GW	—	10-15	1245	2	X	X		-01
		GW								
		GW								
		GW								
		GW								
		GW								
		GW								
		GW								
		GW								
		GW								

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # 115976

Tab G164

Acctnum: CRAHTX
Template: T156720
Prelogin: P732572
PM: 134 - Mark W. Beasley
PB: TB 10-1-19
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Place these samples on their own report.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10-18-19	1330	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10/18/19	16:20	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			W Taylor

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 2.6-.2=2.4 °C Bottles Received: 1

Date: 10/19/19 Time: 800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Certificate of Analysis Summary 630763

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri Jul-12-19 02:49 pm
Report Date: 05-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	630763-001		630763-002		630763-003		630763-004		630763-005		630763-006	
	Field Id:	NM-MW-2-W-191107		NM-MW-3-W-191107		NM-MW-7-W-191107		RRR Ranch Windmill-W-19		NM-MW-4-W-191107		NM-MW-8-W-191107	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Jul-11-19 14:25		Jul-11-19 14:35		Jul-11-19 14:55		Jul-11-19 15:15		Jul-11-19 15:30		Jul-11-19 15:55	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58	
	Analyzed:	Jul-16-19 15:24		Jul-16-19 15:09		Jul-16-19 15:29		Jul-16-19 15:34		Jul-16-19 16:17		Jul-16-19 15:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		697	5.00	184	2.50	2600	25.0	1800	25.0	40.6	2.50	6200	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1330	5.00	581	5.00	4390	5.00	3560	5.00	423	5.00	9310	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 630763

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri Jul-12-19 02:49 pm
Report Date: 05-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	630763-007		630763-008		630763-009		630763-010		630763-013		630763-015	
	Field Id:	NM-MW-1-W-191107		NM-MW-5-W-191107		NM-MW-9-W-191207		NM-MW-6-W-191217		NM-MW-10-W-191207		Wilson Ranch Well-W-1912(	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Jul-11-19 16:25		Jul-11-19 16:35		Jul-12-19 10:15		Jul-12-19 10:30		Jul-12-19 11:50		Jul-12-19 12:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58	
	Analyzed:	Jul-16-19 15:53		Jul-16-19 15:58		Jul-16-19 16:03		Jul-16-19 16:07		Jul-16-19 16:37		Jul-16-19 16:56	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		291	5.00	149	5.00	264	5.00	143	2.50	354	5.00	1300	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1380	5.00	1290	5.00	797	5.00	863	5.00	1680	5.00	2530	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 630763

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri Jul-12-19 02:49 pm
Report Date: 05-AUG-19
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	630763-016		630763-017		630763-018					
	Field Id:	NM-MW-11-WD-191207		Smith Residence-W-191207		58-B-3-W-191207					
	Depth:										
	Matrix:	WATER		WATER		WATER					
	Sampled:	Jul-12-19 00:00		Jul-12-19 12:45		Jul-12-19 13:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58					
	Analyzed:	Jul-16-19 17:01		Jul-16-19 17:06		Jul-16-19 17:10					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		161	10.0	1300	10.0	1470	10.0				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		2010	5.00	2660	5.00	2520	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 630763

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

05-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05-AUG-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **630763**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 630763. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 630763 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-2-W-191107	W	07-11-19 14:25		630763-001
NM-MW-3-W-191107	W	07-11-19 14:35		630763-002
NM-MW-7-W-191107	W	07-11-19 14:55		630763-003
RRR Ranch Windmill-W-191107	W	07-11-19 15:15		630763-004
NM-MW-4-W-191107	W	07-11-19 15:30		630763-005
NM-MW-8-W-191107	W	07-11-19 15:55		630763-006
NM-MW-1-W-191107	W	07-11-19 16:25		630763-007
NM-MW-5-W-191107	W	07-11-19 16:35		630763-008
NM-MW-9-W-191207	W	07-12-19 10:15		630763-009
NM-MW-6-W-191217	W	07-12-19 10:30		630763-010
NM-MW-10-W-191207	W	07-12-19 11:50		630763-013
Wilson Ranch Well-W-191207	W	07-12-19 12:30		630763-015
NM-MW-11-WD-191207	W	07-12-19 00:00		630763-016
Smith Residence-W-191207	W	07-12-19 12:45		630763-017
58-B-3-W-191207	W	07-12-19 13:00		630763-018
NM-MW-11-W-191207	W	07-12-19 10:50		Not Analyzed
NM-MW-13-W-191207	W	07-12-19 11:15		Not Analyzed
NM-MW-12-W-191207	W	07-12-19 12:15		Not Analyzed

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *630763*

Report Date: *05-AUG-19*
Date Received: *07/12/2019*

Sample receipt non conformances and comments:

Report revised 8/5/19 to report samples 011 012 and 014 separately.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3095578 Inorganic Anions by EPA 300/300.1
Lab Sample ID 630763-002 and 630763-005 were randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 630763-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-001 Date Collected: 07.11.19 14.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**697**	5.00	0.858	mg/L	07.16.19 15.24		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1330**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-002 Date Collected: 07.11.19 14.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**184**	2.50	0.429	mg/L	07.16.19 15.09		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**581**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-003 Date Collected: 07.11.19 14.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2600**	25.0	4.29	mg/L	07.16.19 15.29		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4390**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch Windmill-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-004 Date Collected: 07.11.19 15.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1800**	25.0	4.29	mg/L	07.16.19 15.34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3560**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-005 Date Collected: 07.11.19 15.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**40.6**	2.50	0.429	mg/L	07.16.19 16.17		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**423**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-006 Date Collected: 07.11.19 15.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6200**	25.0	4.29	mg/L	07.16.19 15.38		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9310**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-007 Date Collected: 07.11.19 16.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**291**	5.00	0.858	mg/L	07.16.19 15.53		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1380**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-191107** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-008 Date Collected: 07.11.19 16.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**149**	5.00	0.858	mg/L	07.16.19 15.58		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1290**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-009 Date Collected: 07.12.19 10.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**264**	5.00	0.858	mg/L	07.16.19 16.03		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**797**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-191217** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-010 Date Collected: 07.12.19 10.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**143**	2.50	0.429	mg/L	07.16.19 16.07		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**863**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-013 Date Collected: 07.12.19 11.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**354**	5.00	0.858	mg/L	07.16.19 16.37		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1680**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Ranch Well-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-015 Date Collected: 07.12.19 12.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	10.0	1.72	mg/L	07.16.19 16.56		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2530**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-WD-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-016 Date Collected: 07.12.19 00.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**161**	10.0	1.72	mg/L	07.16.19 17.01		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2010**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith Residence-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-017 Date Collected: 07.12.19 12.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	10.0	1.72	mg/L	07.16.19 17.06		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2660**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 630763

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-3-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 630763-018 Date Collected: 07.12.19 13.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1470**	10.0	1.72	mg/L	07.16.19 17.10		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2520**	5.00	5.00	mg/L	07.15.19 14.00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 630763

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
MB Sample Id: 7682139-1-BLK LCS Sample Id: 7682139-1-BKS LCSD Sample Id: 7682139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	23.8	95	23.9	96	90-110	0	20	mg/L	07.16.19 15:00	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
Parent Sample Id: 630763-002 MS Sample Id: 630763-002 S MSD Sample Id: 630763-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	125	207	18	207	18	90-110	0	20	mg/L	07.16.19 15:14	X

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
Parent Sample Id: 630763-005 MS Sample Id: 630763-005 S MSD Sample Id: 630763-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	40.6	125	64.5	19	64.5	19	90-110	0	20	mg/L	07.16.19 16:22	X

Analytical Method: **TDS by SM2540C**
Seq Number: 3095550 Matrix: Water
MB Sample Id: 3095550-1-BLK LCS Sample Id: 3095550-1-BKS LCSD Sample Id: 3095550-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	939	94	956	96	80-120	2	10	mg/L	07.15.19 14:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3095550 Matrix: Water
Parent Sample Id: 630763-001 MD Sample Id: 630763-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1330	1390	4	10	mg/L	07.15.19 14:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 630763

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**

Seq Number: 3095550 Matrix: Water

Parent Sample Id: 630763-011 MD Sample Id: 630763-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1980	1990	1	10	mg/L	07.15.19 14:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 432 of 1515

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Work Order No: 630763

Page 1 of 2

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine ☐	
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	-0.9/-1.0	Thermometer ID		
Received Intact:	Yes No	R8		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-2-W-191107	GW	7-11	1425	—	1	X	X
NM-MW-3-W-191107			1435				
NM-MW-7-W-191107			1455				
RRR Ranch Windmill-W-191107			1515				
NM-MW-4-W-191107			1530				
NM-MW-8-W-191107			1555				
NM-MW-1-W-191107			1625				
NM-MW-5-W-191107		7-11	1635				
NM-MW-9-W-191207	↓	7-12	1015	↓	↓	↓	↓
NM-MW-6-W-191217	GW	7-12	1030	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Joe Mireles	JKramer	7-12 1449	2		
3				4		
5				6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 26 of 28

Page 433 of 1515

Chain of Custody

Work Order No: 630763

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine ☐	
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	Yes No
Temperature (°C):	-0.8/-1.0	Thermometer ID	
Received Intact:	Yes No	290	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.3
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-11-W-191207	GW	7-12	1050	—	1	X	X
NM-MW-13W-191207			1115				
NM-MW-10-W-191207			1150				
NM-MW-12-W-191207			1215				
Wilson Ranch Well-W-191207			1230				
NM-MW-11-WD-191207			—				
Smith Residence-W-191207			1245				
58-B-3-W-191207	GW	7-12	1300	—		X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	KRAMER	7-12-1449	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 27 of 28

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/12/2019 02:49:00 PM

Work Order #: 630763

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel — Date: 07/12/2019

Checklist reviewed by: Debbie Simmons — Date: 07/17/2019

Received by OCD: 3/23/2023 11:36:17 AM

Certificate of Analysis Summary 631118

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 26-JUL-19
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	631118-001		631118-002		631118-003					
	Field Id:	MW-34-W-191507		MW-33-W-191507		MW-32-W-191507					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	Jul-15-19 10:05		Jul-15-19 10:20		Jul-15-19 10:35					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00					
	Analyzed:	Jul-19-19 17:47		Jul-19-19 16:00		Jul-19-19 16:06					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		64.2	2.50	153	5.00	314	5.00				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		621	5.00	988	5.00	1090	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Released to Imaging: 11/21/2023 10:32:34 AM

Analytical Report 631118

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

26-JUL-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

26-JUL-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **631118**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 631118. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 631118 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 631118

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-34-W-191507	W	07-15-19 10:05		631118-001
MW-33-W-191507	W	07-15-19 10:20		631118-002
MW-32-W-191507	W	07-15-19 10:35		631118-003

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *631118*

Report Date: *26-JUL-19*
Date Received: *07/17/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3095993 Inorganic Anions by EPA 300/300.1
Lab Sample ID 631118-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 631118-001, -002, -003.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 631118

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-34-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631118-001 Date Collected: 07.15.19 10.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.2**	2.50	0.429	mg/L	07.19.19 17.47		5

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**621**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631118

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631118-002 Date Collected: 07.15.19 10.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**153**	5.00	0.858	mg/L	07.19.19 16.00		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**988**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631118

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631118-003 Date Collected: 07.15.19 10.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**314**	5.00	0.858	mg/L	07.19.19 16.06		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1090**	5.00	5.00	mg/L	07.18.19 16.00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 631118

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095993 Matrix: Water Date Prep: 07.19.19
MB Sample Id: 7682392-1-BLK LCS Sample Id: 7682392-1-BKS LCSD Sample Id: 7682392-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.8	99	24.8	99	90-110	0	20	mg/L	07.19.19 15:06	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095993 Matrix: Ground Water Date Prep: 07.19.19
Parent Sample Id: 631118-001 MS Sample Id: 631118-001 S MSD Sample Id: 631118-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	64.2	125	96.4	26	96.6	26	90-110	0	20	mg/L	07.19.19 17:53	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095993 Matrix: Drinking Water Date Prep: 07.19.19
Parent Sample Id: 631469-001 MS Sample Id: 631469-001 S MSD Sample Id: 631469-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.80	25.0	33.3	98	33.3	98	90-110	0	20	mg/L	07.19.19 15:35	

Analytical Method: TDS by SM2540C
Seq Number: 3095987 Matrix: Water
MB Sample Id: 3095987-1-BLK LCS Sample Id: 3095987-1-BKS LCSD Sample Id: 3095987-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1040	104	80-120	3	10	mg/L	07.18.19 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3095987 Matrix: Ground Water
Parent Sample Id: 631119-019 MD Sample Id: 631119-019 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	33200	34000	2	10	mg/L	07.18.19 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 631118

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**

Seq Number: 3095987 Matrix: Ground Water

Parent Sample Id: 631119-029 MD Sample Id: 631119-029 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9780	10700	9	10	mg/L	07.18.19 16:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 446 of 1515

Chain of Custody

Work Order No: 631118

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Page 1 of 1

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.3 \ 0.1	Thermometer ID	IR	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.5	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-34-W-191507	GW	7-15	1005	-	1	X	X
MW-33-W-191507	↓	7-15	1020	-	1	X	X
MW-32-W-191507	GW	7-15	1035	-	1	X	X

ANALYSIS REQUEST

Work Order Notes

Please print as a separate report from the rest of the samples

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	BW	7/17/19 0802	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 12 of 13
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/17/2019 08:02:00 AM

Work Order #: 631118

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel Date: 07/17/2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 07/17/2019

Debbie Simmons

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631119-001		631119-002		631119-003		631119-004		631119-005		631119-006	
	Field Id:	MW-29-W-191507		MW-28-W-191507		58-B-2-MW-W-191507		58-B-1-MW-W-191507		MW-9-W-191507		MW-8-W-191507	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-15-19 11:10		Jul-15-19 11:20		Jul-15-19 11:50		Jul-15-19 12:05		Jul-15-19 12:25		Jul-15-19 12:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15	
	Analyzed:	Jul-18-19 20:52		Jul-18-19 20:58		Jul-18-19 21:05		Jul-18-19 21:11		Jul-18-19 21:32		Jul-18-19 21:39	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		500	10.0	2180	25.0	3850	25.0	6180	50.0	2620	25.0	884	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1140	5.00	3490	5.00	6310	5.00	9750	5.00	4240	5.00	2390	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631119-007		631119-008		631119-009		631119-010		631119-011		631119-012	
	Field Id:	DHU-FWS-W-191507		MW-27-W-191507		MW-20-W-191507		MW-26-W-191507		MW-24-W-191507		MW-18-W-191507	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-15-19 12:55		Jul-15-19 13:10		Jul-15-19 13:25		Jul-15-19 13:40		Jul-15-19 13:50		Jul-15-19 14:05	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15	
	Analyzed:	Jul-18-19 21:45		Jul-18-19 21:51		Jul-18-19 21:58		Jul-18-19 22:27		Jul-18-19 22:33		Jul-18-19 22:54	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		624	25.0	2540	25.0	1270	25.0	1360	25.0	4180	25.0	21000	250
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3020	5.00	4440	5.00	2330	5.00	2960	5.00	8860	5.00	33100	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631119-013		631119-014		631119-015		631119-016		631119-017		631119-018	
	Field Id:	MW-19-W-191507		MW-12-W-191507		MW-31-W-191507		MW-10-W-191507		MW-6-W-191507		MW-11-W-191507	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-15-19 14:15		Jul-15-19 14:30		Jul-15-19 14:45		Jul-15-19 15:05		Jul-15-19 15:25		Jul-15-19 15:35	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-18-19 14:15		Jul-18-19 14:15		Jul-18-19 14:15		Jul-27-19 18:40		Jul-18-19 14:15		Jul-18-19 14:15	
	Analyzed:	Jul-18-19 23:01		Jul-18-19 23:07		Jul-18-19 23:13		Jul-28-19 12:27		Jul-18-19 23:26		Jul-18-19 23:32	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		6860	50.0	11000	100	10900	100	4860	25.0	395	10.0	7680	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51		Jul-18-19 12:51	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		11000	5.00	22600	5.00	16600	5.00	8210	5.00	1470	5.00	11800	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631119-019		631119-020		631119-021		631119-022		631119-023		631119-024	
	Field Id:	MW-25-W-191507		MW-10-WD-191507		MW-5-W-191607		MW-3-W-191607		TRACT-4-W-191607		MW-14-W-191607	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-15-19 15:50		Jul-15-19 00:00		Jul-16-19 10:10		Jul-16-19 10:25		Jul-16-19 10:40		Jul-16-19 10:55	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-19-19 14:00		Jul-27-19 18:40		Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00	
	Analyzed:	Jul-19-19 16:13		Jul-28-19 12:01		Jul-19-19 17:22		Jul-19-19 17:28		Jul-19-19 17:34		Jul-19-19 17:40	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		23200	100	4750	25.0	219	5.00	475	5.00	333	5.00	1110	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		33200	5.00	8650	5.00	1120	5.00	1320	5.00	1110	5.00	3120	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631119-025		631119-026		631119-027		631119-028		631119-029		631119-030	
	Field Id:	MW-4-W-191607		MW-13-W-191607		MW-30-W-191607		Livermore-W-191607		MW-23-W-191607		MW-22-W-191607	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-16-19 11:15		Jul-16-19 11:35		Jul-16-19 11:50		Jul-16-19 12:05		Jul-16-19 12:40		Jul-16-19 12:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00	
	Analyzed:	Jul-19-19 18:06		Jul-19-19 18:12		Jul-19-19 18:31		Jul-19-19 18:37		Jul-19-19 18:44		Jul-19-19 18:50	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		269	5.00	1400	25.0	1500	25.0	1340	25.0	3420	25.0	11300	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		889	5.00	4440	5.00	4200	5.00	4720	5.00	9780	5.00	18000	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631119

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Wed Jul-17-19 08:02 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested												
	Lab Id:	631119-031		631119-032		631119-033		631119-034		631119-035		
	Field Id:	MW-17-W-191607		MW-21-W-191607		MW-16-W-191607		MW-15-W-191607		MW-17-WD-191607		
	Depth:											
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		
	Sampled:	Jul-16-19 13:05		Jul-16-19 13:30		Jul-16-19 13:45		Jul-16-19 14:10		Jul-16-19 00:00		
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-19-19 14:00		Jul-19-19 14:00		Jul-19-19 14:00		Jul-22-19 11:30		Jul-22-19 11:30		
	Analyzed:	Jul-19-19 18:56		Jul-19-19 19:03		Jul-19-19 19:09		Jul-22-19 12:08		Jul-22-19 12:13		
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	
Chloride		7880	50.0	6720	50.0	301	5.00	1300	10.0	8150	50.0	
TDS by SM2540C	***Extracted:***											
	Analyzed:	Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		Jul-18-19 16:00		
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	
Total Dissolved Solids		13100	5.00	11000	5.00	1060	5.00	1800	5.00	12800	5.00	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Analytical Report 631119

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02-AUG-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **631119**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 631119. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 631119 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-29-W-191507	W	07-15-19 11:10		631119-001
MW-28-W-191507	W	07-15-19 11:20		631119-002
58-B-2-MW-W-191507	W	07-15-19 11:50		631119-003
58-B-1-MW-W-191507	W	07-15-19 12:05		631119-004
MW-9-W-191507	W	07-15-19 12:25		631119-005
MW-8-W-191507	W	07-15-19 12:45		631119-006
DHU-FWS-W-191507	W	07-15-19 12:55		631119-007
MW-27-W-191507	W	07-15-19 13:10		631119-008
MW-20-W-191507	W	07-15-19 13:25		631119-009
MW-26-W-191507	W	07-15-19 13:40		631119-010
MW-24-W-191507	W	07-15-19 13:50		631119-011
MW-18-W-191507	W	07-15-19 14:05		631119-012
MW-19-W-191507	W	07-15-19 14:15		631119-013
MW-12-W-191507	W	07-15-19 14:30		631119-014
MW-31-W-191507	W	07-15-19 14:45		631119-015
MW-10-W-191507	W	07-15-19 15:05		631119-016
MW-6-W-191507	W	07-15-19 15:25		631119-017
MW-11-W-191507	W	07-15-19 15:35		631119-018
MW-25-W-191507	W	07-15-19 15:50		631119-019
MW-10-WD-191507	W	07-15-19 00:00		631119-020
MW-5-W-191607	W	07-16-19 10:10		631119-021
MW-3-W-191607	W	07-16-19 10:25		631119-022
TRACT-4-W-191607	W	07-16-19 10:40		631119-023
MW-14-W-191607	W	07-16-19 10:55		631119-024
MW-4-W-191607	W	07-16-19 11:15		631119-025
MW-13-W-191607	W	07-16-19 11:35		631119-026
MW-30-W-191607	W	07-16-19 11:50		631119-027
Livermore-W-191607	W	07-16-19 12:05		631119-028
MW-23-W-191607	W	07-16-19 12:40		631119-029
MW-22-W-191607	W	07-16-19 12:50		631119-030
MW-17-W-191607	W	07-16-19 13:05		631119-031
MW-21-W-191607	W	07-16-19 13:30		631119-032
MW-16-W-191607	W	07-16-19 13:45		631119-033
MW-15-W-191607	W	07-16-19 14:10		631119-034
MW-17-WD-191607	W	07-16-19 00:00		631119-035

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *631119*

Report Date: *02-AUG-19*
Date Received: *07/17/2019*

Sample receipt non conformances and comments:

page 3 did not have date collected nor tests for all samples. Confirmed with Brittany White, all samples on page 3 were collected on 7/16 and are for Chlorides and TDS.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3096659 Inorganic Anions by EPA 300/300.1
Lab Sample ID 631119-020 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 631119-016, -020.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-001 Date Collected: 07.15.19 11.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**500**	10.0	1.72	mg/L	07.18.19 20.52		20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1140**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-002 Date Collected: 07.15.19 11.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2180**	25.0	4.29	mg/L	07.18.19 20.58		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3490**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-2-MW-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-003 Date Collected: 07.15.19 11.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3850**	25.0	4.29	mg/L	07.18.19 21.05		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6310**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-1-MW-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-004 Date Collected: 07.15.19 12.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6180**	50.0	8.58	mg/L	07.18.19 21.11		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9750**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-005 Date Collected: 07.15.19 12.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2620**	25.0	4.29	mg/L	07.18.19 21.32		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4240**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-006 Date Collected: 07.15.19 12.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**884**	25.0	4.29	mg/L	07.18.19 21.39		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2390**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-007 Date Collected: 07.15.19 12.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**624**	25.0	4.29	mg/L	07.18.19 21.45		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3020**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-008 Date Collected: 07.15.19 13.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2540**	25.0	4.29	mg/L	07.18.19 21.51		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4440**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-009 Date Collected: 07.15.19 13.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1270**	25.0	4.29	mg/L	07.18.19 21.58		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2330**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-010 Date Collected: 07.15.19 13.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1360**	25.0	4.29	mg/L	07.18.19 22.27		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2960**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-011 Date Collected: 07.15.19 13.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4180**	25.0	4.29	mg/L	07.18.19 22.33		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8860**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-012 Date Collected: 07.15.19 14.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21000**	250	42.9	mg/L	07.18.19 22.54		500

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**33100**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-013 Date Collected: 07.15.19 14.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6860**	50.0	8.58	mg/L	07.18.19 23.01		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-014 Date Collected: 07.15.19 14.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11000**	100	17.2	mg/L	07.18.19 23.07		200

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**22600**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-015 Date Collected: 07.15.19 14.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10900**	100	17.2	mg/L	07.18.19 23.13		200

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**16600**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-016 Date Collected: 07.15.19 15.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 07.27.19 18.40

Seq Number: 3096659

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4860**	25.0	4.29	mg/L	07.28.19 12.27		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8210**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-017 Date Collected: 07.15.19 15.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**395**	10.0	1.72	mg/L	07.18.19 23.26		20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1470**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-018 Date Collected: 07.15.19 15.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.18.19 14.15

Seq Number: 3095823

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7680**	50.0	8.58	mg/L	07.18.19 23.32		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095933

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11800**	5.00	5.00	mg/L	07.18.19 12.51		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-019 Date Collected: 07.15.19 15.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23200**	100	17.2	mg/L	07.19.19 16.13		200

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**33200**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-WD-191507** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-020 Date Collected: 07.15.19 00.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 07.27.19 18.40

Seq Number: 3096659

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4750**	25.0	4.29	mg/L	07.28.19 12.01		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8650**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-021 Date Collected: 07.16.19 10.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**219**	5.00	0.858	mg/L	07.19.19 17.22		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1120**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-022 Date Collected: 07.16.19 10.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**475**	5.00	0.858	mg/L	07.19.19 17.28		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1320**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **TRACT-4-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-023 Date Collected: 07.16.19 10.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**333**	5.00	0.858	mg/L	07.19.19 17.34		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1110**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-024 Date Collected: 07.16.19 10.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1110**	25.0	4.29	mg/L	07.19.19 17.40		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3120**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-025 Date Collected: 07.16.19 11.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**269**	5.00	0.858	mg/L	07.19.19 18.06		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**889**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-026 Date Collected: 07.16.19 11.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1400**	25.0	4.29	mg/L	07.19.19 18.12		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4440**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-027 Date Collected: 07.16.19 11.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1500**	25.0	4.29	mg/L	07.19.19 18.31		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4200**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-028 Date Collected: 07.16.19 12.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	25.0	4.29	mg/L	07.19.19 18.37		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4720**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-029 Date Collected: 07.16.19 12.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3420**	25.0	4.29	mg/L	07.19.19 18.44		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9780**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-030 Date Collected: 07.16.19 12.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11300**	50.0	8.58	mg/L	07.19.19 18.50		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**18000**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-031 Date Collected: 07.16.19 13.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7880**	50.0	8.58	mg/L	07.19.19 18.56		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13100**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-032 Date Collected: 07.16.19 13.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6720**	50.0	8.58	mg/L	07.19.19 19.03		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-033 Date Collected: 07.16.19 13.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.19.19 14.00

Seq Number: 3095993

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**301**	5.00	0.858	mg/L	07.19.19 19.09		10

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1060**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-034 Date Collected: 07.16.19 14.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	10.0	1.72	mg/L	07.22.19 12.08		20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1800**	5.00	5.00	mg/L	07.18.19 16.00		1

Certificate of Analytical Results 631119

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-WD-191607** Matrix: Ground Water Date Received:07.17.19 08.02

Lab Sample Id: 631119-035 Date Collected: 07.16.19 00.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8150**	50.0	8.58	mg/L	07.22.19 12.13		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3095987

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**12800**	5.00	5.00	mg/L	07.18.19 16.00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 631119

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095823 Matrix: Water Date Prep: 07.18.19
MB Sample Id: 7682295-1-BLK LCS Sample Id: 7682295-1-BKS LCSD Sample Id: 7682295-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.1	100	25.2	101	90-110	0	20	mg/L	07.18.19 20:14	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095993 Matrix: Water Date Prep: 07.19.19
MB Sample Id: 7682392-1-BLK LCS Sample Id: 7682392-1-BKS LCSD Sample Id: 7682392-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.8	99	24.8	99	90-110	0	20	mg/L	07.19.19 15:06	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
MB Sample Id: 7682483-1-BLK LCS Sample Id: 7682483-1-BKS LCSD Sample Id: 7682483-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.1	96	23.9	96	90-110	1	20	mg/L	07.22.19 11:35	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3096659 Matrix: Water Date Prep: 07.27.19
MB Sample Id: 7682957-1-BLK LCS Sample Id: 7682957-1-BKS LCSD Sample Id: 7682957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.6	98	24.8	99	90-110	1	20	mg/L	07.28.19 11:41	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095823 Matrix: Drinking Water Date Prep: 07.18.19
Parent Sample Id: 631264-001 MS Sample Id: 631264-001 S MSD Sample Id: 631264-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.21	25.0	29.1	100	29.3	100	90-110	1	20	mg/L	07.18.19 20:37	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 631119

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095823 Matrix: Drinking Water Date Prep: 07.18.19
Parent Sample Id: 631265-001 MS Sample Id: 631265-001 S MSD Sample Id: 631265-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.4	25.0	50.2	103	49.9	102	90-110	1	20	mg/L	07.18.19 22:12	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095993 Matrix: Ground Water Date Prep: 07.19.19
Parent Sample Id: 631118-001 MS Sample Id: 631118-001 S MSD Sample Id: 631118-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	64.2	125	96.4	26	96.6	26	90-110	0	20	mg/L	07.19.19 17:53	X

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3095993 Matrix: Drinking Water Date Prep: 07.19.19
Parent Sample Id: 631469-001 MS Sample Id: 631469-001 S MSD Sample Id: 631469-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	8.80	25.0	33.3	98	33.3	98	90-110	0	20	mg/L	07.19.19 15:35	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
Parent Sample Id: 631650-001 MS Sample Id: 631650-001 S MSD Sample Id: 631650-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.8	99	24.6	98	90-110	1	20	mg/L	07.22.19 11:52	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
Parent Sample Id: 631650-002 MS Sample Id: 631650-002 S MSD Sample Id: 631650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.4	102	27.1	108	90-110	6	20	mg/L	07.22.19 13:06	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 631119

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096659 Matrix: Ground Water Date Prep: 07.27.19
Parent Sample Id: 631119-020 MS Sample Id: 631119-020 S MSD Sample Id: 631119-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4750	1250	4740	0	4740	0	90-110	0	20	mg/L	07.28.19 12:08	X

Analytical Method: **TDS by SM2540C**
Seq Number: 3095933 Matrix: Water
MB Sample Id: 3095933-1-BLK LCS Sample Id: 3095933-1-BKS LCSD Sample Id: 3095933-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	990	99	80-120	0	10	mg/L	07.18.19 12:51	

Analytical Method: **TDS by SM2540C**
Seq Number: 3095987 Matrix: Water
MB Sample Id: 3095987-1-BLK LCS Sample Id: 3095987-1-BKS LCSD Sample Id: 3095987-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1010	101	1040	104	80-120	3	10	mg/L	07.18.19 16:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3095933 Matrix: Water
Parent Sample Id: 630934-001 MD Sample Id: 630934-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	3990	3900	2	10	mg/L	07.18.19 12:51	

Analytical Method: **TDS by SM2540C**
Seq Number: 3095933 Matrix: Water
Parent Sample Id: 631249-001 MD Sample Id: 631249-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2570	2590	1	10	mg/L	07.18.19 12:51	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 631119

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3095987 Matrix: Ground Water
Parent Sample Id: 631119-019 MD Sample Id: 631119-019 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	33200	34000	2	10	mg/L	07.18.19 16:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3095987 Matrix: Ground Water
Parent Sample Id: 631119-029 MD Sample Id: 631119-029 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	9780	10700	9	10	mg/L	07.18.19 16:00	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 498 of 1515

Chain of Custody

Work Order No: 631119

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Morales	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.3 0.1	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-29-W-191507	GW	7-15	1110	—	1	X	X
MW-28-W-191507			1120				
SB-B-2-MW-W-191507			1150				
SB-B-1-MW-W-191507			1205				
MW-9-W-191507			1225				
MW-8-W-191507			1245				
DHU-FWS-W-191507			1255				
MW-22-W-191507			1310				
MW-20-W-191507			1325				
MW-26-W-191507	GW	7-15	1340	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Morales		7/17/19 0800	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 51 of 55

Page 499 of 1515

Chain of Custody

Work Order No: 631119

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles, Phillip Cole	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.3 | 0.1	Thermometer ID	DE
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-24-W-191507	GW	7-15	1350	—	1	X	X
MW-18-W-191507			1405				
MW-19-W-191507			1415				
MW-12-W-191507			1430				
MW-31-W-191507			1445				
MW-10-W-191507			1505				
MW-6-W-191507			1525				
MW-11-W 191507			1535				
MW-25-W-191507	↓	↓	1550	↓	↓	↓	↓
MW-10-WD-191507	GW	7-15	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles		7/17/19 0802	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 52 of 55

Page 500 of 1515

Chain of Custody

Work Order No: 631119

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone: 225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:		Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.3 | 0.1	Thermometer ID:	DE
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
MW-5-W-~~191607~~ 191607	GW	7-16	1010	–	1	X	X	
MW-3-W-191607			1025					
TRACT-4-W-191607			1040					
MW-14-W-191607			1055					
MW-4-W-191607			1115					
MW-13-W-191607			1135					
MW-30-W-191607			1150					
Livermore-W-191607			1205					
MW-23-W-191607			1240					
MW-22-W-191607			1250					

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mueller	BAW	7/17/19 0900	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 53 of 55

Page 501 of 1515

Chain of Custody

Work Order No: 631119

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Page 4 of 4

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.3 | 0.1	Thermometer ID	
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-17-W-191607	GW	7-16	1305	—	1	X	X
MW-21-W-191607	GW	7-16	1330	—	1	X	X
MW-16-W-191607	GW	7-16	1345	—	1	X	X
MW-~~16~~ 15-W-191607	GW	7-16	1410	—	1	X	X
MW-17-WD-191607	GW	7-16	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	BTW	0802 7/17/19	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 54 of 55

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/17/2019 08:02:00 AM

Work Order #: 631119

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel Date: 07/17/2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 07/17/2019

Debbie Simmons

Certificate of Analysis Summary 631310

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Jul-18-19 08:09 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631310-001		631310-002		631310-003		631310-004		631310-005		631310-006	
	Field Id:	43-K-1-MW-W-191707		45-E-3-MW-W-191707		45-F-1-MW-W-191707		45-FF-MW-W-191707		45-E-2-MW-W-191707		45-E-1-MW-W-191707	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Jul-17-19 11:30		Jul-17-19 11:40		Jul-17-19 12:00		Jul-17-19 12:15		Jul-17-19 12:30		Jul-17-19 12:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30	
	Analyzed:	Jul-22-19 12:18		Jul-22-19 12:34		Jul-22-19 12:40		Jul-22-19 12:45		Jul-22-19 12:50		Jul-22-19 12:56	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		7050	50.0	4010	25.0	1060	10.0	6060	25.0	1830	25.0	3360	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		11000	5.00	6440	5.00	1770	5.00	7320	5.00	2880	5.00	4820	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 631310

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Jul-18-19 08:09 am
Report Date: 02-AUG-19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	631310-007		631310-008		631310-009		631310-010		631310-011		631310-012	
	Field Id:	44-I-1-MW-W-191707		44-J-1-MW-W-191707		44-J-5-MW-W-191707		44-J-4-MW-W-191707		44-J-3-MW-W-191707		44-J-2-MW-W-191707	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Jul-17-19 13:20		Jul-17-19 13:35		Jul-17-19 13:45		Jul-17-19 14:00		Jul-17-19 14:15		Jul-17-19 14:25	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30		Jul-22-19 11:30	
	Analyzed:	Jul-22-19 13:17		Jul-22-19 13:22		Jul-22-19 13:38		Jul-22-19 13:44		Jul-22-19 13:49		Jul-22-19 13:55	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		3400	25.0	5140	25.0	4200	25.0	4240	25.0	5340	25.0	5170	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09		Jul-22-19 16:09	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		5510	5.00	7020	5.00	6810	5.00	6850	5.00	8680	5.00	7870	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Analytical Report 631310

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02-AUG-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **631310**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 631310. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 631310 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
43-K-1-MW-W-191707	W	07-17-19 11:30		631310-001
45-E-3-MW-W-191707	W	07-17-19 11:40		631310-002
45-F-1-MW-W-191707	W	07-17-19 12:00		631310-003
45-FF-MW-W-191707	W	07-17-19 12:15		631310-004
45-E-2-MW-W-191707	W	07-17-19 12:30		631310-005
45-E-1-MW-W-191707	W	07-17-19 12:50		631310-006
44-I-1-MW-W-191707	W	07-17-19 13:20		631310-007
44-J-1-MW-W-191707	W	07-17-19 13:35		631310-008
44-J-5-MW-W-191707	W	07-17-19 13:45		631310-009
44-J-4-MW-W-191707	W	07-17-19 14:00		631310-010
44-J-3-MW-W-191707	W	07-17-19 14:15		631310-011
44-J-2-MW-W-191707	W	07-17-19 14:25		631310-012

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *631310*

Report Date: *02-AUG-19*
Date Received: *07/18/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **43-K-1-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-001 Date Collected: 07.17.19 11.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7050**	50.0	8.58	mg/L	07.22.19 12.18		100

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-3-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-002 Date Collected: 07.17.19 11.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4010**	25.0	4.29	mg/L	07.22.19 12.34		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6440**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-F-1-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-003 Date Collected: 07.17.19 12.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1060**	10.0	1.72	mg/L	07.22.19 12.40		20

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1770**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-FF-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-004 Date Collected: 07.17.19 12.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6060**	25.0	4.29	mg/L	07.22.19 12.45		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7320**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-2-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-005 Date Collected: 07.17.19 12.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1830**	25.0	4.29	mg/L	07.22.19 12.50		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2880**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-1-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-006 Date Collected: 07.17.19 12.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3360**	25.0	4.29	mg/L	07.22.19 12.56		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4820**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-I-1-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-007 Date Collected: 07.17.19 13.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3400**	25.0	4.29	mg/L	07.22.19 13.17		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5510**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-1-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-008 Date Collected: 07.17.19 13.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5140**	25.0	4.29	mg/L	07.22.19 13.22		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7020**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-5-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-009 Date Collected: 07.17.19 13.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4200**	25.0	4.29	mg/L	07.22.19 13.38		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6810**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-4-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-010 Date Collected: 07.17.19 14.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4240**	25.0	4.29	mg/L	07.22.19 13.44		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6850**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-3-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-011 Date Collected: 07.17.19 14.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5340**	25.0	4.29	mg/L	07.22.19 13.49		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8680**	5.00	5.00	mg/L	07.22.19 16.09		1

Certificate of Analytical Results 631310

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-2-MW-W-191707** Matrix: Water Date Received:07.18.19 08.09

Lab Sample Id: 631310-012 Date Collected: 07.17.19 14.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.22.19 11.30

Seq Number: 3096072

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5170**	25.0	4.29	mg/L	07.22.19 13.55		50

Analytical Method: TDS by SM2540C

Tech: SPC % Moisture:

Analyst: SPC

Seq Number: 3096099

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7870**	5.00	5.00	mg/L	07.22.19 16.09		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 631310

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
MB Sample Id: 7682483-1-BLK LCS Sample Id: 7682483-1-BKS LCSD Sample Id: 7682483-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.1	96	23.9	96	90-110	1	20	mg/L	07.22.19 11:35	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
Parent Sample Id: 631650-001 MS Sample Id: 631650-001 S MSD Sample Id: 631650-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	24.8	99	24.6	98	90-110	1	20	mg/L	07.22.19 11:52	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3096072 Matrix: Water Date Prep: 07.22.19
Parent Sample Id: 631650-002 MS Sample Id: 631650-002 S MSD Sample Id: 631650-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.4	102	27.1	108	90-110	6	20	mg/L	07.22.19 13:06	

Analytical Method: **TDS by SM2540C**
Seq Number: 3096099 Matrix: Water
MB Sample Id: 3096099-1-BLK LCS Sample Id: 3096099-1-BKS LCSD Sample Id: 3096099-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	972	97	984	98	80-120	1	10	mg/L	07.22.19 16:09	

Analytical Method: **TDS by SM2540C**
Seq Number: 3096099 Matrix: Water
Parent Sample Id: 631310-001 MD Sample Id: 631310-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	11000	10700	3	10	mg/L	07.22.19 16:09	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 631310

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**

Seq Number: 3096099 Matrix: Water

Parent Sample Id: 631310-011 MD Sample Id: 631310-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	8680	8630	1	10	mg/L	07.22.19 16:09	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike

Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added

LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

Page 524 of 1515

Chain of Custody

Work Order No: 631310

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Morales Phillip Cole	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.2 1.0	Thermometer ID	R40
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
43-K-1-MW-W-191707	GW	7-17	1130	—	1	X	X
45-E-3-MW-W-191707			1140				
45-F-1-MW-W-191707			1200				
45-FE-MW-W-191707			1215				
45-E-2-MW-W-191707			1230				
45-E-1-MW-W-191707			1250				
44-I-1-MW-W-191707			1320				
44-J-1-MW-W-191707			1335				
44-J-5-MW-W-191707			1345				
44-J-4-MW-W-191707	GW	7-17	1400	—	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	KRAMER	7.18 809	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 22 of 24

Page 525 of 1515

Chain of Custody

Work Order No: 631310

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Page 2 of 2

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.3/1.0	Thermometer ID	R8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.3
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
44-J-3-MW-W-191707	GW	7-17	1415	—	1	X	X
44-J-2-MW-W-191707	GW	7-17	1425	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	J Kramer	7.19 909	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 23 of 24
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/18/2019 08:09:00 AM

Work Order #: 631310

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel
Brianna Teel

Date: 07/18/2019

Checklist reviewed by: Debbie Simmons
Debbie Simmons

Date: 07/19/2019

Certificate of Analysis Summary 632989

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri Jul-12-19 02:49 pm
Report Date: 05-AUG-19
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	632989-001		632989-002		632989-003					
	Field Id:	NM-MW-11-W-191207		NM-MW-13-W-191207		NM-MW-12-W-191207					
	Depth:										
	Matrix:	WATER		WATER		WATER					
	Sampled:	Jul-12-19 10:50		Jul-12-19 11:15		Jul-12-19 12:15					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-16-19 14:58		Jul-16-19 14:58		Jul-16-19 14:58					
	Analyzed:	Jul-16-19 16:12		Jul-16-19 16:32		Jul-16-19 16:51					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		157	10.0	199	5.00	657	5.00				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Jul-15-19 14:00		Jul-15-19 14:00		Jul-15-19 14:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		1980	5.00	1090	5.00	524	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Final 1.000

Analytical Report 632989

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

05-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

05-AUG-19

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **632989**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 632989. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 632989 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 632989

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-11-W-191207	W	07-12-19 10:50		632989-001
NM-MW-13-W-191207	W	07-12-19 11:15		632989-002
NM-MW-12-W-191207	W	07-12-19 12:15		632989-003

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *632989*

Report Date: *05-AUG-19*
Date Received: *07/12/2019*

Sample receipt non conformances and comments:

per Brittany White, report NM-MW-11-W-191207, NM- M13-W-191207 and NM-MW-12-W-191207 separate.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 632989

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 632989-001 Date Collected: 07.12.19 10.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**157**	10.0	1.72	mg/L	07.16.19 16.12		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1980**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 632989

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 632989-002 Date Collected: 07.12.19 11.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**199**	5.00	0.858	mg/L	07.16.19 16.32		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1090**	5.00	5.00	mg/L	07.15.19 14.00		1

Certificate of Analytical Results 632989

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-191207** Matrix: Water Date Received:07.12.19 14.49

Lab Sample Id: 632989-003 Date Collected: 07.12.19 12.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 07.16.19 14.58

Seq Number: 3095578

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**657**	5.00	0.858	mg/L	07.16.19 16.51		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3095550

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**524**	5.00	5.00	mg/L	07.15.19 14.00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 632989

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
MB Sample Id: 7682139-1-BLK LCS Sample Id: 7682139-1-BKS LCSD Sample Id: 7682139-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	23.8	95	23.9	96	90-110	0	20	mg/L	07.16.19 15:00	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
Parent Sample Id: 630763-002 MS Sample Id: 630763-002 S MSD Sample Id: 630763-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	125	207	18	207	18	90-110	0	20	mg/L	07.16.19 15:14	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3095578 Matrix: Water Date Prep: 07.16.19
Parent Sample Id: 630763-005 MS Sample Id: 630763-005 S MSD Sample Id: 630763-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	40.6	125	64.5	19	64.5	19	90-110	0	20	mg/L	07.16.19 16:22	X

Analytical Method: TDS by SM2540C
Seq Number: 3095550 Matrix: Water
MB Sample Id: 3095550-1-BLK LCS Sample Id: 3095550-1-BKS LCSD Sample Id: 3095550-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	939	94	956	96	80-120	2	10	mg/L	07.15.19 14:00	

Analytical Method: TDS by SM2540C
Seq Number: 3095550 Matrix: Water
Parent Sample Id: 630763-001 MD Sample Id: 630763-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1330	1390	4	10	mg/L	07.15.19 14:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 632989

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**

Seq Number: 3095550 Matrix: Water

Parent Sample Id: 632989-001 MD Sample Id: 632989-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1980	1990	1	10	mg/L	07.15.19 14:00	

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Page 538 of 1515

632989 dr.

Chain of Custody

Work Order No: ~~630163~~

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Page 1 of 1 dr

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine ☐	
P.O. Number:	34032659	Rush:	
Sampler's Name:	Phillip Cole Joe Mireles	Due Date:	

SAMPLE RECEIPT					
Temperature (°C):	-0.8/-1.0	Temp Blank:	(Yes) No	Wet Ice:	Yes No
Received Intact:	Yes No	Thermometer ID	R90		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2		
Sample Custody Seals:	Yes No N/A	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-11-W-191207	GW	7-12	1050	—	1	X	X
NM-MW-13W-191207			1115				
~~NM-MW-10-W-191207~~			1150				
NM-MW-12-W-191207			1215				
~~Wilson Ranch Well-W-191207~~			1230				
~~NM-MW-11-WD-191207~~			—				
~~Smith Residence-W-191207~~			1245				
~~58-B-3-W-191207~~	GW	7-12	1300	—		X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	J Kramer	7-12-1449	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 12 of 13

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/12/2019 02:49:00 PM

Work Order #: 632989

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BIT

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08/05/2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 08/05/2019

Debbie Simmons

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-001		640401-002		640401-003		640401-004		640401-005		640401-006	
	Field Id:	NM-MW-1-W-191510		NM-MW-2-W-191510		NM-MW-3-W-191510		NM-MW-4-W-191510		NM-MW-5-W-191510		NM-MW-6-W-191510	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.15.2019 11:55		10.15.2019 11:35		10.15.2019 11:27		10.15.2019 10:57		10.15.2019 12:01		10.15.2019 12:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 11:15	
	Analyzed:	10.21.2019 12:12		10.21.2019 12:18		10.21.2019 11:56		10.21.2019 13:12		10.21.2019 12:23		10.21.2019 14:56	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		281	5.00	666	5.00	183 X	2.50	46.2 X	2.50	170	5.00	139	2.50
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1450	5.00	1240	5.00	596	5.00	430	5.00	1320	5.00	827	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-007		640401-008		640401-009		640401-010		640401-011		640401-012	
	Field Id:	NM-MW-7-W-191510		NM-MW-8-W-191510		NM-MW-9-W-191510		NM-MW-10-W-191510		RRR Ranch Windmill-W-		Smith Residence-W-1915	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.15.2019 10:35		10.15.2019 11:10		10.15.2019 13:25		10.15.2019 13:11		10.15.2019 10:59		10.15.2019 14:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45	
	Analyzed:	10.21.2019 12:29		10.21.2019 12:45		10.21.2019 12:50		10.21.2019 12:56		10.21.2019 13:01		10.21.2019 13:07	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2370	25.0	7120	25.0	243	5.00	340	5.00	1800	25.0	1180	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4240	5.00	10700	5.00	812	5.00	1670	5.00	3500	5.00	2140	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-013		640401-014		640401-015		640401-016		640401-017		640401-018	
	Field Id:	Wilson Ranch Well-W-19		MW-28-W-191610		MW-29-W-191610		MW-9-W-191610		MW-8-W-191610		DHU-FWS-W-191610	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.15.2019 13:45		10.16.2019 11:00		10.16.2019 11:10		10.16.2019 11:40		10.16.2019 12:00		10.16.2019 12:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45	
	Analyzed:	10.21.2019 13:29		10.21.2019 13:34		10.21.2019 13:50		10.21.2019 17:28		10.21.2019 14:01		10.21.2019 14:07	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		928	10.0	2410	25.0	501	5.00	2520	25.0	919	10.0	603	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20		10.18.2019 17:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1880	5.00	3780	5.00	1200	5.00	4610	5.00	2400	5.00	2950	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-019		640401-020		640401-021		640401-022		640401-023		640401-024	
	Field Id:	MW-27-W-191610		MW-20-W-191610		MW-26-W-191610		MW-24-W-191610		MW-12-W-191610		MW-31-W-191610	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.16.2019 12:20		10.16.2019 12:30		10.16.2019 12:45		10.16.2019 13:00		10.16.2019 13:15		10.16.2019 13:25	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 10:45		10.21.2019 10:45		10.21.2019 10:45		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15	
	Analyzed:	10.21.2019 14:12		10.21.2019 14:18		10.21.2019 14:23		10.21.2019 15:12		10.21.2019 15:17		10.21.2019 15:23	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2490	25.0	1260	10.0	1340	25.0	4150	25.0	12600	100	10500	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.18.2019 17:20		10.18.2019 17:20		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4160	5.00	2500	5.00	3250	5.00	8980	5.00	23400	5.00	17900	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-025		640401-026		640401-027		640401-028		640401-029		640401-030	
	Field Id:	MW-10-W-191610		MW-18-W-191610		MW-19-W-191610		MW-25-W-191710		MW-11-W-191710		MW-10-WD-191610	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.16.2019 13:45		10.16.2019 14:00		10.16.2019 14:20		10.17.2019 11:05		10.17.2019 10:30		10.16.2019 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15	
	Analyzed:	10.21.2019 17:34		10.21.2019 15:45		10.21.2019 15:50		10.21.2019 15:56		10.21.2019 16:01		10.21.2019 16:06	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		4980	25.0	19900	100	7160	50.0	20900	100	7590	50.0	4940	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		8520	5.00	37300	5.00	12800	5.00	24800	5.00	12400	5.00	8630	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-031		640401-032		640401-033		640401-034		640401-035		640401-036	
	Field Id:	MW-6-W-191710		MW-5-W-191710		MW-3-W-191710		TRAC-4-W-191710		Livermoore-W-191710		MW-30-W-191710	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.17.2019 10:45		10.17.2019 10:55		10.17.2019 11:15		10.17.2019 11:30		10.17.2019 11:50		10.17.2019 12:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 11:15		10.21.2019 11:15		10.22.2019 15:45		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15	
	Analyzed:	10.21.2019 16:28		10.21.2019 16:34		10.22.2019 22:01		10.21.2019 17:39		10.21.2019 17:44		10.21.2019 17:50	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		383	5.00	257	5.00	502	5.00	323	5.00	2490	25.0	2340	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1490	5.00	1000	5.00	1350	5.00	1070	5.00	4160	5.00	3880	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-037		640401-038		640401-039		640401-040		640401-041		640401-042	
	Field Id:	MW-13-W-191710		MW-4-W-191710		MW-14-W-191710		MW-15-W-191710		MW-21-W-191710		MW-16-W-191710	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	10.17.2019 12:20		10.17.2019 12:35		10.17.2019 12:45		10.17.2019 13:00		10.17.2019 13:15		10.17.2019 13:25	
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 11:15		10.21.2019 11:15		10.21.2019 11:15		10.21.2019 15:00		10.21.2019 15:00		10.21.2019 15:00	
	Analyzed:	10.21.2019 17:55		10.21.2019 18:01		10.21.2019 17:23		10.21.2019 21:09		10.21.2019 21:14		10.21.2019 21:19	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1960	25.0	325	5.00	1670	25.0	1010	10.0	7010	50.0	393	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:14		10.21.2019 08:15		10.21.2019 08:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3720	5.00	902	5.00	2940	5.00	1850	5.00	11000	5.00	1110	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 640401

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:26
Report Date: 10.29.2019 16:11
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640401-043		640401-044		640401-045		640401-046					
	Field Id:	MW-17-W-191710		MW-23-W-191710		MW-22-W-191710		MW-17-WD-191710					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	10.17.2019 13:35		10.17.2019 13:50		10.17.2019 14:00		10.17.2019 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 15:00		10.21.2019 15:00		10.21.2019 15:00		10.21.2019 15:00					
	Analyzed:	10.21.2019 21:23		10.21.2019 21:42		10.21.2019 21:47		10.21.2019 21:52					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		9620	50.0	3840	25.0	12400	50.0	9430	50.0				
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.21.2019 08:15		10.21.2019 08:15		10.21.2019 08:15		10.21.2019 08:15					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		15300	5.00	10200	5.00	20600	5.00	16000	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 640401

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

10.29.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

10.29.2019

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **640401**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640401. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 640401 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-1-W-191510	W	10.15.2019 11:55		640401-001
NM-MW-2-W-191510	W	10.15.2019 11:35		640401-002
NM-MW-3-W-191510	W	10.15.2019 11:27		640401-003
NM-MW-4-W-191510	W	10.15.2019 10:57		640401-004
NM-MW-5-W-191510	W	10.15.2019 12:01		640401-005
NM-MW-6-W-191510	W	10.15.2019 12:15		640401-006
NM-MW-7-W-191510	W	10.15.2019 10:35		640401-007
NM-MW-8-W-191510	W	10.15.2019 11:10		640401-008
NM-MW-9-W-191510	W	10.15.2019 13:25		640401-009
NM-MW-10-W-191510	W	10.15.2019 13:11		640401-010
RRR Ranch Windmill-W-191510	W	10.15.2019 10:59		640401-011
Smith Residence-W-191510	W	10.15.2019 14:10		640401-012
Wilson Ranch Well-W-191510	W	10.15.2019 13:45		640401-013
MW-28-W-191610	W	10.16.2019 11:00		640401-014
MW-29-W-191610	W	10.16.2019 11:10		640401-015
MW-9-W-191610	W	10.16.2019 11:40		640401-016
MW-8-W-191610	W	10.16.2019 12:00		640401-017
DHU-FWS-W-191610	W	10.16.2019 12:10		640401-018
MW-27-W-191610	W	10.16.2019 12:20		640401-019
MW-20-W-191610	W	10.16.2019 12:30		640401-020
MW-26-W-191610	W	10.16.2019 12:45		640401-021
MW-24-W-191610	W	10.16.2019 13:00		640401-022
MW-12-W-191610	W	10.16.2019 13:15		640401-023
MW-31-W-191610	W	10.16.2019 13:25		640401-024
MW-10-W-191610	W	10.16.2019 13:45		640401-025
MW-18-W-191610	W	10.16.2019 14:00		640401-026
MW-19-W-191610	W	10.16.2019 14:20		640401-027
MW-25-W-191710	W	10.17.2019 11:05		640401-028
MW-11-W-191710	W	10.17.2019 10:30		640401-029
MW-10-WD-191610	W	10.16.2019 00:00		640401-030
MW-6-W-191710	W	10.17.2019 10:45		640401-031
MW-5-W-191710	W	10.17.2019 10:55		640401-032
MW-3-W-191710	W	10.17.2019 11:15		640401-033
TRAC-4-W-191710	W	10.17.2019 11:30		640401-034
Livermoore-W-191710	W	10.17.2019 11:50		640401-035
MW-30-W-191710	W	10.17.2019 12:10		640401-036
MW-13-W-191710	W	10.17.2019 12:20		640401-037
MW-4-W-191710	W	10.17.2019 12:35		640401-038
MW-14-W-191710	W	10.17.2019 12:45		640401-039
MW-15-W-191710	W	10.17.2019 13:00		640401-040
MW-21-W-191710	W	10.17.2019 13:15		640401-041
MW-16-W-191710	W	10.17.2019 13:25		640401-042
MW-17-W-191710	W	10.17.2019 13:35		640401-043

Sample Cross Reference 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

MW-23-W-191710	W	10.17.2019 13:50	640401-044
MW-22-W-191710	W	10.17.2019 14:00	640401-045
MW-17-WD-191710	W	10.17.2019 00:00	640401-046

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *640401*

Report Date: *10.29.2019*
Date Received: *10.18.2019*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3104927 Inorganic Anions by EPA 300/300.1

Lab Sample ID 640401-003 and 640401-004 were randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640401-001, -002, -003, -004, -005, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-001 Date Collected: 10.15.2019 11:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**281**	5.00	0.210	mg/L	10.21.2019 12:12		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1450**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-002 Date Collected: 10.15.2019 11:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**666**	5.00	0.210	mg/L	10.21.2019 12:18		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-003 Date Collected: 10.15.2019 11:27

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**183**	2.50	0.105	mg/L	10.21.2019 11:56	X	5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**596**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-004 Date Collected: 10.15.2019 10:57

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**46.2**	2.50	0.105	mg/L	10.21.2019 13:12	X	5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**430**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-005 Date Collected: 10.15.2019 12:01

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**170**	5.00	0.210	mg/L	10.21.2019 12:23		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1320**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-006 Date Collected: 10.15.2019 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**139**	2.50	0.105	mg/L	10.21.2019 14:56		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**827**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-007 Date Collected: 10.15.2019 10:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2370**	25.0	1.05	mg/L	10.21.2019 12:29		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4240**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-008 Date Collected: 10.15.2019 11:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7120**	25.0	1.05	mg/L	10.21.2019 12:45		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10700**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-009 Date Collected: 10.15.2019 13:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**243**	5.00	0.210	mg/L	10.21.2019 12:50		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**812**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-010 Date Collected: 10.15.2019 13:11

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**340**	5.00	0.210	mg/L	10.21.2019 12:56		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1670**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch Windmill-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-011 Date Collected: 10.15.2019 10:59

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1800**	25.0	1.05	mg/L	10.21.2019 13:01		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3500**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith Residence-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-012 Date Collected: 10.15.2019 14:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1180**	10.0	0.421	mg/L	10.21.2019 13:07		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2140**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Ranch Well-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-013 Date Collected: 10.15.2019 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**928**	10.0	0.421	mg/L	10.21.2019 13:29		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1880**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-014 Date Collected: 10.16.2019 11:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2410**	25.0	1.05	mg/L	10.21.2019 13:34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3780**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-015 Date Collected: 10.16.2019 11:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**501**	5.00	0.210	mg/L	10.21.2019 13:50		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1200**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-016 Date Collected: 10.16.2019 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2520**	25.0	1.05	mg/L	10.21.2019 17:28		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4610**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-017 Date Collected: 10.16.2019 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**919**	10.0	0.421	mg/L	10.21.2019 14:01		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2400**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-018 Date Collected: 10.16.2019 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**603**	10.0	0.421	mg/L	10.21.2019 14:07		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2950**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-019 Date Collected: 10.16.2019 12:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2490**	25.0	1.05	mg/L	10.21.2019 14:12		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-020 Date Collected: 10.16.2019 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	10.0	0.421	mg/L	10.21.2019 14:18		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104805

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2500**	5.00	5.00	mg/L	10.18.2019 17:20		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-021 Date Collected: 10.16.2019 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 10:45

Seq Number: 3104927

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	25.0	1.05	mg/L	10.21.2019 14:23		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3250**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-022 Date Collected: 10.16.2019 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4150**	25.0	1.05	mg/L	10.21.2019 15:12		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8980**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-023 Date Collected: 10.16.2019 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12600**	100	4.21	mg/L	10.21.2019 15:17		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**23400**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-024 Date Collected: 10.16.2019 13:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10500**	50.0	2.10	mg/L	10.21.2019 15:23		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**17900**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-025 Date Collected: 10.16.2019 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4980**	25.0	1.05	mg/L	10.21.2019 17:34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8520**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-026 Date Collected: 10.16.2019 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19900**	100	4.21	mg/L	10.21.2019 15:45		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**37300**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-027 Date Collected: 10.16.2019 14:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7160**	50.0	2.10	mg/L	10.21.2019 15:50		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**12800**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-028 Date Collected: 10.17.2019 11:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20900**	100	4.21	mg/L	10.21.2019 15:56		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**24800**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-029 Date Collected: 10.17.2019 10:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7590**	50.0	2.10	mg/L	10.21.2019 16:01		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**12400**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-WD-191610** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-030 Date Collected: 10.16.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4940**	25.0	1.05	mg/L	10.21.2019 16:06		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8630**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-031 Date Collected: 10.17.2019 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**383**	5.00	0.210	mg/L	10.21.2019 16:28		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1490**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-032 Date Collected: 10.17.2019 10:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**257**	5.00	0.210	mg/L	10.21.2019 16:34		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1000**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-033 Date Collected: 10.17.2019 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.22.2019 15:45

Seq Number: 3105071

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**502**	5.00	0.210	mg/L	10.22.2019 22:01		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1350**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **TRAC-4-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-034 Date Collected: 10.17.2019 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**323**	5.00	0.210	mg/L	10.21.2019 17:39		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermoore-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-035 Date Collected: 10.17.2019 11:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2490**	25.0	1.05	mg/L	10.21.2019 17:44		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4160**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-036 Date Collected: 10.17.2019 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2340**	25.0	1.05	mg/L	10.21.2019 17:50		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3880**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-037 Date Collected: 10.17.2019 12:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1960**	25.0	1.05	mg/L	10.21.2019 17:55		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3720**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-038 Date Collected: 10.17.2019 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**325**	5.00	0.210	mg/L	10.21.2019 18:01		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**902**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-039 Date Collected: 10.17.2019 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1670**	25.0	1.05	mg/L	10.21.2019 17:23		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2940**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-040 Date Collected: 10.17.2019 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1010**	10.0	0.421	mg/L	10.21.2019 21:09		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104806

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1850**	5.00	5.00	mg/L	10.21.2019 08:14		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-041 Date Collected: 10.17.2019 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7010**	50.0	2.10	mg/L	10.21.2019 21:14		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-042 Date Collected: 10.17.2019 13:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**393**	5.00	0.210	mg/L	10.21.2019 21:19		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1110**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-043 Date Collected: 10.17.2019 13:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9620**	50.0	2.10	mg/L	10.21.2019 21:23		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**15300**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-044 Date Collected: 10.17.2019 13:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3840**	25.0	1.05	mg/L	10.21.2019 21:42		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10200**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-045 Date Collected: 10.17.2019 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12400**	50.0	2.10	mg/L	10.21.2019 21:47		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**20600**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640401

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-WD-191710** Matrix: Ground Water Date Received:10.18.2019 10:26

Lab Sample Id: 640401-046 Date Collected: 10.17.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9430**	50.0	2.10	mg/L	10.21.2019 21:52		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**16000**	5.00	5.00	mg/L	10.21.2019 08:15		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 640401

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104927 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688516-1-BLK LCS Sample Id: 7688516-1-BKS LCSD Sample Id: 7688516-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.7	99	24.7	99	90-110	0	20	mg/L	10.21.2019 11:45	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688518-1-BLK LCS Sample Id: 7688518-1-BKS LCSD Sample Id: 7688518-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.9	100	24.7	99	90-110	1	20	mg/L	10.21.2019 14:45	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688578-1-BLK LCS Sample Id: 7688578-1-BKS LCSD Sample Id: 7688578-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.3	105	26.1	104	90-110	1	20	mg/L	10.21.2019 20:35	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3105071 Matrix: Water Date Prep: 10.22.2019
MB Sample Id: 7688659-1-BLK LCS Sample Id: 7688659-1-BKS LCSD Sample Id: 7688659-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.4	106	26.1	104	90-110	1	20	mg/L	10.22.2019 21:27	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104927 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640401-003 MS Sample Id: 640401-003 S MSD Sample Id: 640401-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	183	125	214	25	214	25	90-110	0	20	mg/L	10.21.2019 12:01	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104927 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640401-004 MS Sample Id: 640401-004 S MSD Sample Id: 640401-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	46.2	125	68.0	17	68.2	18	90-110	0	20	mg/L	10.21.2019 13:18	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640401

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640401-006 MS Sample Id: 640401-006 S MSD Sample Id: 640401-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	139	25.0	165	104	165	104	90-110	0	20	mg/L	10.21.2019 15:01	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640402-003 MS Sample Id: 640402-003 S MSD Sample Id: 640402-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	66.5	25.0	92.6	104	92.2	103	90-110	0	20	mg/L	10.21.2019 16:17	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640589-001 MS Sample Id: 640589-001 S MSD Sample Id: 640589-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	25.0	53.2	101	52.4	98	90-110	2	20	mg/L	10.21.2019 20:55	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640590-001 MS Sample Id: 640590-001 S MSD Sample Id: 640590-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.93	25.0	16.9	56	16.9	56	90-110	0	20	mg/L	10.21.2019 22:14	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3105071 Matrix: Water Date Prep: 10.22.2019
Parent Sample Id: 640619-001 MS Sample Id: 640619-001 S MSD Sample Id: 640619-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	27.1	108	26.4	106	90-110	3	20	mg/L	10.22.2019 21:48	

Analytical Method: TDS by SM2540C
Seq Number: 3104805 Matrix: Water
MB Sample Id: 3104805-1-BLK LCS Sample Id: 3104805-1-BKS LCSD Sample Id: 3104805-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1050	105	986	99	80-120	6	10	mg/L	10.18.2019 17:20	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640401

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3104806 Matrix: Water
MB Sample Id: 3104806-1-BLK LCS Sample Id: 3104806-1-BKS LCSD Sample Id: 3104806-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	992	99	1010	101	80-120	2	10	mg/L	10.21.2019 08:14	

Analytical Method: TDS by SM2540C
Seq Number: 3104807 Matrix: Water
MB Sample Id: 3104807-1-BLK LCS Sample Id: 3104807-1-BKS LCSD Sample Id: 3104807-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	977	98	977	98	80-120	0	10	mg/L	10.21.2019 08:15	

Analytical Method: TDS by SM2540C
Seq Number: 3104805 Matrix: Ground Water
Parent Sample Id: 640401-001 MD Sample Id: 640401-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1450	1450	0	10	mg/L	10.18.2019 17:20	

Analytical Method: TDS by SM2540C
Seq Number: 3104805 Matrix: Ground Water
Parent Sample Id: 640401-011 MD Sample Id: 640401-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	3500	3430	2	10	mg/L	10.18.2019 17:20	

Analytical Method: TDS by SM2540C
Seq Number: 3104806 Matrix: Ground Water
Parent Sample Id: 640401-021 MD Sample Id: 640401-021 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	3250	3040	7	10	mg/L	10.21.2019 08:14	

Analytical Method: TDS by SM2540C
Seq Number: 3104806 Matrix: Ground Water
Parent Sample Id: 640401-031 MD Sample Id: 640401-031 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1490	1420	5	10	mg/L	10.21.2019 08:14	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640401

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640401-041 MD Sample Id: 640401-041 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	11000	10900	1	10	mg/L	10.21.2019 08:15	

Analytical Method: **TDS by SM2540C**
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640403-002 MD Sample Id: 640403-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1380	1300	6	10	mg/L	10.21.2019 08:15	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 604 of 1515

Chain of Custody

Work Order No: 640401

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.3/3.1	Thermometer ID	DE	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-1-W-191510	GW	10-15	1155	—	1	X	X
NM-MW-2-W-191510			1135				
NM-MW-3-W-191510			1127				
NM-MW-4-W-191510			1057				
NM-MW-5-W-191510			1201				
NM-MW-6-W-191510			1215				
NM-MW-7-W-191510			1035				
NM-MW-8-W-191510			1110				
NM-MW-9-W-191510			1325				
NM-MW-10-W-191510	GW	10-15	1311	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/18	2		
3		1620	4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 65 of 70

Page 605 of 1515

Chain of Custody

Work Order No: 640401

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☑
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.3 | 3.1	Thermometer ID		
Received Intact:	Yes | No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
RRR Ranch Windmill-W-191510	GW	10-15	1059	—	1	X	X
Smith Residence-W-191510		10-15	1410				
Wilson Ranch Well-W-191510		10-15	1345				
MW-28-W-191610		10-16	1100				
MW-29-W-191610			1110				
MW-9-W-191610			1140				
MW-8-W-191610			1200				
DHC-FWS-W-191610			1210				
MW-27-W-191610			1220				
MW-20-W-191610	GW	10-16	1230	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/18 1020	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 66 of 70

Page 606 of 1515

Chain of Custody

Work Order No: 640401

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine ☒	
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5.3 | 5.1	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-26-W-191610	GW	10-16	1245	—	1	X	X
MW-24-W-1916 10			1300				
MW-12-W-191610			1315				
MW-31-W-191610			1325				
MW-10-W-191610			1345				
MW-18-W-191610		↓	1400				
MW-19-W-191610		10-16	1420				
MW-25-W-191710		10-17	1105				
MW-11-W-191710	↓	10-17	1030	↓	↓	↓	↓
MW-10-WD-191610	GW	10-16	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/18 1020	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 67 of 70

Page 607 of 1515

Chain of Custody

Work Order No: 1040401

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone: 225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☑
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.3/3.1	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-6-W-191710	GW	10-17	1045	—	1	X	X
MW-5-W-191710			1055				
MW-3-W-191710			1115				
TRAC-4-W-191710			1130				
Livermore-W-191710			1150				
MW-30-W-191710			1210				
MW-13-W-191710			1220				
MW-4-W-191710			1235				
MW-14-W-191710			1245				
MW-15-W-191710	GW	10-17	1300	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/19 1020	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 68 of 70

Page 608 of 1515

XENCO LABORATORIES

Chain of Custody

Work Order No: 640401

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 5 of 5

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	X
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.3/3.1	Thermometer ID		
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-21-W-191710	GW	10-17	1315	—	1	X	X
MW-16-W-191710			1325				
MW-17-W-191710			1335				
MW-23-W-191710			1350				
MW-22-W-191710			1400				
MW-17-WD-191710	GW	10-17	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/18/1020	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 69 of 70

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 10.18.2019 10.26.00 AM

Work Order #: 640401

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel Date: 10.18.2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 10.18.2019

Debbie Simmons

Certificate of Analysis Summary 640402

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:34
Report Date: 10.29.2019 14:49
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	640402-001		640402-002		640402-003					
	Field Id:	MW-32-W-191510		MW-33-W-191510		MW-34-W-191510					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	10.15.2019 14:49		10.15.2019 14:15		10.15.2019 14:25					
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 15:00		10.21.2019 15:00		10.21.2019 11:15					
	Analyzed:	10.21.2019 21:57		10.21.2019 22:02		10.21.2019 16:12					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		271	5.00	156	5.00	66.5	2.50				
TDS by SM2540C	***Extracted:***										
	Analyzed:	10.21.2019 08:15		10.21.2019 08:15		10.21.2019 08:15					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		1110	5.00	1040	5.00	604	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 640402

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

10.29.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

10.29.2019

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **640402**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640402. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 640402 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 640402

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-32-W-191510	W	10.15.2019 14:49		640402-001
MW-33-W-191510	W	10.15.2019 14:15		640402-002
MW-34-W-191510	W	10.15.2019 14:25		640402-003

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID:	*055270*	Report Date:	*10.29.2019*
Work Order Number(s):	*640402*	Date Received:	*10.18.2019*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 640402

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640402-001 Date Collected: 10.15.2019 14:49

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**271**	5.00	0.210	mg/L	10.21.2019 21:57		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1110**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640402

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640402-002 Date Collected: 10.15.2019 14:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**156**	5.00	0.210	mg/L	10.21.2019 22:02		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1040**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640402

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-34-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640402-003 Date Collected: 10.15.2019 14:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 11:15

Seq Number: 3104928

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**66.5**	2.50	0.105	mg/L	10.21.2019 16:12		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**604**	5.00	5.00	mg/L	10.21.2019 08:15		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 640402

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688518-1-BLK LCS Sample Id: 7688518-1-BKS LCSD Sample Id: 7688518-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.9	100	24.7	99	90-110	1	20	mg/L	10.21.2019 14:45	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688578-1-BLK LCS Sample Id: 7688578-1-BKS LCSD Sample Id: 7688578-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.3	105	26.1	104	90-110	1	20	mg/L	10.21.2019 20:35	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640401-006 MS Sample Id: 640401-006 S MSD Sample Id: 640401-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	139	25.0	165	104	165	104	90-110	0	20	mg/L	10.21.2019 15:01	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104928 Matrix: Ground Water Date Prep: 10.21.2019
Parent Sample Id: 640402-003 MS Sample Id: 640402-003 S MSD Sample Id: 640402-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	66.5	25.0	92.6	104	92.2	103	90-110	0	20	mg/L	10.21.2019 16:17	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640589-001 MS Sample Id: 640589-001 S MSD Sample Id: 640589-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	25.0	53.2	101	52.4	98	90-110	2	20	mg/L	10.21.2019 20:55	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640590-001 MS Sample Id: 640590-001 S MSD Sample Id: 640590-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.93	25.0	16.9	56	16.9	56	90-110	0	20	mg/L	10.21.2019 22:14	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 640402

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3104807 Matrix: Water
MB Sample Id: 3104807-1-BLK LCS Sample Id: 3104807-1-BKS LCSD Sample Id: 3104807-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	977	98	977	98	80-120	0	10	mg/L	10.21.2019 08:15	

Analytical Method: **TDS by SM2540C**
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640401-041 MD Sample Id: 640401-041 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	11000	10900	1	10	mg/L	10.21.2019 08:15	

Analytical Method: **TDS by SM2540C**
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640403-002 MD Sample Id: 640403-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1380	1300	6	10	mg/L	10.21.2019 08:15	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 621 of 1515

Chain of Custody

Work Order No: 640402

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.2 | 3.1	Thermometer ID	IR8
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-32-W-191510	GW	10-15	1449	—	1	X	X
MW-33-W-191510	GW	10-15	1415	—	1	X	X
MW-34-W-191510	GW	10-15	1425	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

Place these samples on their own report

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/18	2		
3			4		
5		1027	6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 12 of 13

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 10.18.2019 10.34.15 AM

Work Order #: 640402

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel Date: 10.18.2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 10.18.2019

Debbie Simmons

Certificate of Analysis Summary 640403

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 10.18.2019 10:34
Report Date: 10.29.2019 14:49
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	640403-001		640403-002		640403-003		640403-004					
	Field Id:	NM-MW-11-W-191510		NM-MW-12-W-191510		NM-MW-13-W-191510		NM-MW-11-WD-19151					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	10.15.2019 12:25		10.15.2019 13:40		10.15.2019 12:45		10.15.2019 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	10.21.2019 15:00		10.21.2019 15:00		10.21.2019 15:00		10.21.2019 15:00					
	Analyzed:	10.21.2019 22:27		10.21.2019 22:32		10.21.2019 22:51		10.21.2019 22:56					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		134	10.0	512	5.00	179	5.00	77.3	10.0				
TDS by SM2540C	***Extracted:***												
	Analyzed:	10.21.2019 08:15		10.21.2019 08:15		10.21.2019 08:15		10.21.2019 08:15					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		1530	5.00	1380	5.00	1100	5.00	1820	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 640403

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

10.29.2019

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

10.29.2019

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **640403**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640403. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 640403 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 640403

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-11-W-191510	W	10.15.2019 12:25		640403-001
NM-MW-12-W-191510	W	10.15.2019 13:40		640403-002
NM-MW-13-W-191510	W	10.15.2019 12:45		640403-003
NM-MW-11-WD-191510	W	10.15.2019 00:00		640403-004

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID:	*055270*	Report Date:	*10.29.2019*
Work Order Number(s):	*640403*	Date Received:	*10.18.2019*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 640403

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640403-001 Date Collected: 10.15.2019 12:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**134**	10.0	0.421	mg/L	10.21.2019 22:27		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1530**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640403

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640403-002 Date Collected: 10.15.2019 13:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**512**	5.00	0.210	mg/L	10.21.2019 22:32		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1380**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640403

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640403-003 Date Collected: 10.15.2019 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**179**	5.00	0.210	mg/L	10.21.2019 22:51		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1100**	5.00	5.00	mg/L	10.21.2019 08:15		1

Certificate of Analytical Results 640403

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-WD-191510** Matrix: Ground Water Date Received:10.18.2019 10:34

Lab Sample Id: 640403-004 Date Collected: 10.15.2019 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.21.2019 15:00

Seq Number: 3104935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**77.3**	10.0	0.421	mg/L	10.21.2019 22:56		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3104807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1820**	5.00	5.00	mg/L	10.21.2019 08:15		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 640403

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Water Date Prep: 10.21.2019
MB Sample Id: 7688578-1-BLK LCS Sample Id: 7688578-1-BKS LCSD Sample Id: 7688578-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.3	105	26.1	104	90-110	1	20	mg/L	10.21.2019 20:35	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640589-001 MS Sample Id: 640589-001 S MSD Sample Id: 640589-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.9	25.0	53.2	101	52.4	98	90-110	2	20	mg/L	10.21.2019 20:55	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3104935 Matrix: Drinking Water Date Prep: 10.21.2019
Parent Sample Id: 640590-001 MS Sample Id: 640590-001 S MSD Sample Id: 640590-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.93	25.0	16.9	56	16.9	56	90-110	0	20	mg/L	10.21.2019 22:14	X

Analytical Method: TDS by SM2540C
Seq Number: 3104807 Matrix: Water
MB Sample Id: 3104807-1-BLK LCS Sample Id: 3104807-1-BKS LCSD Sample Id: 3104807-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	977	98	977	98	80-120	0	10	mg/L	10.21.2019 08:15	

Analytical Method: TDS by SM2540C
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640401-041 MD Sample Id: 640401-041 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	11000	10900	1	10	mg/L	10.21.2019 08:15	

Analytical Method: TDS by SM2540C
Seq Number: 3104807 Matrix: Ground Water
Parent Sample Id: 640403-002 MD Sample Id: 640403-002 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1380	1300	6	10	mg/L	10.21.2019 08:15	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 634 of 1515

XENCO LABORATORIES

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: 404403

www.xenco.com Page 1 of 1

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	X
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	3.5 3.1	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

Place these on their own report

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
NM-MW-11-W-191510	GW	10-15	1225	—	1	X	X	
NM-MW-12-W-191510	↓	↓	1340	↓	1	X	X	
NM-MW-13-W-191510	↓	↓	1245	↓	1	X	X	
NM-MW-11-WD-191510	GW	10-15	—	—	1	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		10/19	2		
3			4		
5		1027	6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 12 of 13
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 10.18.2019 10.34.21 AM

Work Order #: 640403

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**N/A**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Brianna Teel Date: 10.18.2019

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 10.18.2019

Debbie Simmons

Appendix C
Historical Groundwater Analytical Data

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Monitor Wells			
43-K-1-MW			
	2/28/2007	**6,200**	**11,400**
	7/26/2007	**7,250**	**13,500**
	1/22/2008	**7,360**	**12,500**
	7/7/2008	**7,460**	**14,300**
	1/28/2009	**8,210**	**14,500**
	8/26/2009	**9,140**	**16,700**
	2/19/2010	**7,560**	**15,000**
	8/18/2010	**10,600**	**17,900**
	2/15/2011	**11,900**	**15,400**
	8/4/2011	**11,600**	**19,800**
	2/3/2012	**9,560**	**19,900**
	7/17/2015	**8,870**	**16,700**
	1/29/2016	NS	NS
	7/20/2016	**8,470**	**13,800**
	1/11/2017	**8,360**	**15,400**
	4/10/2017	NS	NS
	7/14/2017	**8,550**	**14,000**
	1/12/2018	**8,020**	**10,500**
	7/5/2018	**7,840**	**12,700**
	1/7/2019	**7,130**	**9,640**
	7/17/2019	**7,050**	**11,000**
44-I-1-MW			
	01/06	**1,909**	**3,728**
	04/06	**1,349**	**2,823**
	6/13/2006	**1,300**	**2,930**
	9/13/2006	**1,340**	**2,620**
	12/8/2006	**1,370**	**3,010**
	2/28/2007	**1,310**	**2,840**
	7/30/2007	**1,440**	**3,010**
	1/22/2008	**1,630**	**2,730**
	7/7/2008	**1,480**	**2,910**
	1/29/2009	**1,510**	**2,870**
	8/27/2009	**1,500**	**2,850**
	2/18/2010	**1,140**	**2,800**
	8/19/2010	**1,610**	**2,840**
	2/15/2011	**1,970**	**2,850**
	8/4/2011	**1,770**	**3,060**
	2/2/2012	**1,550**	**3,470**
	1/29/2013	**1,850**	**3,300**
	7/30/2013	**1,640**	**3,550**
	1/15/2014	**1,860**	**3,730**
	7/16/2014	**2,100**	**5,180**
	1/14/2015	**2,000**	**4,690**
	1/28/2016	**2,430**	**3,500**
	7/20/2016	**2,620**	**6,220**
	1/12/2017	**3,290**	**6,250**
	4/10/2017	NS	NS
	7/14/2017	**2,750**	**6,700**
	1/12/2018	**2,940**	**5,030**
	7/5/2018	**3,170**	**5,450**
	1/9/2019	**3,320**	**4,580**
	7/17/2019	**3,400**	**5,510**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-1-MW			
	01/06	**1,382**	**2,835**
	03/06	**1,551**	**3,139**
	6/13/2006	**1,550**	**3,570**
	9/13/2006	**1,910**	**3,270**
	12/8/2006	**1,810**	**3,090**
	2/28/2007	**1,600**	**3,530**
	7/30/2007	**1,830**	**3,480**
	1/22/2008	**2,090**	**3,390**
	7/7/2008	**1,960**	**3,780**
	1/29/2009	**1,870**	**4,070**
	8/28/2009	**2,480**	**4,050**
	2/19/2010	**1,850**	**4,480**
	8/19/2010	**2,600**	**4,440**
	2/15/2011	**2,630**	**4,960**
	8/4/2011	**2,890**	**5,740**
	2/2/2012	**2,740**	**5,900**
	1/28/2016	NS	NS
	7/20/2016	**2,440**	**5,980**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**3,650**	**8,630**
	1/12/2018	**3,410**	**6,190**
	7/5/2018	**4,300**	**6,910**
	1/9/2019	**4,850**	**6,190**
	7/17/2019	**5,140**	**7,020**
44-J-2-MW			
	01/06	**1,380**	**2,870**
	03/06	**1,911**	**3,745**
	6/13/2006	**1,760**	**3,910**
	9/13/2006	**2,230**	**3,790**
	12/8/2006	**2,270**	**3,660**
	2/28/2007	**1,820**	**3,770**
	7/30/2007	**2,090**	**4,050**
	1/22/2008	**2,040**	**3,800**
	7/7/2008	**2,130**	**4,290**
	1/29/2009	**2,260**	**4,800**
	8/28/2009	**2,820**	**5,030**
	2/18/2010	**2,280**	**5,840**
	8/20/2010	**2,930**	**5,900**
	2/15/2011	**3,000**	**5,780**
	8/5/2011	**3,090**	**13,200**
	2/2/2012	**3,200**	**7,600**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**8,680**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**4,160**	**10,000**
	1/12/2018	**4,560**	**7,820**
	7/5/2018	**5,050**	**8,000**
	1/9/2019	**4,930**	**7,020**
	7/17/2019	**5,170**	**7,870**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-3-MW			
	9/13/2006	**2,580**	**4,850**
	12/8/2006	**2,690**	**4,790**
	8/28/2009	**3,330**	**5,820**
	2/18/2010	**2,580**	**4,980**
	8/20/2010	**3,430**	**5,940**
	2/15/2011	**3,660**	**6,340**
	8/2/2011	**3,090**	**5,970**
	2/2/2012	**2,810**	**5,640**
	1/28/2016	NS	NS
	7/20/2016	**3,630**	**7,810**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**3,960**	**9,150**
	1/12/2018	**4,800**	**8,420**
	7/5/2018	**5,290**	**9,230**
	1/9/2019	**4,300**	**6,330**
	7/17/2019	**5,340**	**8,680**
44-J-4-MW			
	9/13/2006	**1,820**	**3,620**
	12/8/2006	**2,220**	**3,880**
	8/27/2009	**2,090**	**3,810**
	2/18/2010	**1,730**	**4,160**
	8/20/2010	**2,300**	**4,500**
	2/15/2011	**2,400**	**4,500**
	8/2/2011	**2,510**	**4,300**
	2/3/2012	**2,160**	**5,150**
	1/28/2016	NS	NS
	7/20/2016	**3,080**	**6,110**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,750**	**6,260**
	1/12/2018	**3,660**	**7,250**
	7/5/2018	**4,520**	**7,430**
	1/9/2019	**4,470**	**6,130**
	7/17/2019	**4,240**	**6,850**
44-J-5-MW			
	9/13/2006	**1,740**	**3,360**
	12/8/2006	**1,570**	**3,260**
	8/27/2009	**1,650**	**3,870**
	2/19/2010	**1,660**	**3,940**
	8/20/2010	**2,150**	**4,260**
	2/15/2011	**2,530**	**4,030**
	8/4/2011	**2,430**	**4,320**
	2/2/2012	**2,260**	**4,920**
	1/28/2016	NS	NS
	7/20/2016	**2,710**	**5,470**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,930**	**6,780**
	1/12/2018	**3,500**	**6,230**
	7/5/2018	**4,060**	**6,600**
	1/9/2019	**3,970**	**5,690**
	7/17/2019	**4,200**	**6,810**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-1-MW			
	01/06	**994**	**1,795**
	03/06	**1,686**	**2,951**
	6/14/2006	**2,580**	**5,290**
	9/12/2006	**1,990**	**4,110**
	12/7/2006	**3,740**	**7,960**
	2/28/2007	**3,650**	**8,130**
	7/30/2007	**3,770**	**9,480**
	1/22/2008	**3,850**	**6,250**
	7/7/2008	**3,770**	**7,140**
	1/28/2009	**3,810**	**8,230**
	8/27/2009	**3,710**	**6,780**
	2/18/2010	**3,150**	**6,720**
	8/17/2010	**4,090**	**6,520**
	2/15/2011	**4,150**	**6,800**
	8/2/2011	**1,960**	**8,390**
	2/2/2012	**3,520**	**9,160**
	1/28/2016	NS	NS
	7/20/2016	**2,690**	**6,540**
	1/12/2017	**2,860**	**3,340**
	4/10/2017	NS	NS
	7/20/2017	**2,580**	**5,020**
	1/12/2018	**2,300**	**4,650**
	7/5/2018	**2,530**	**4,220**
	1/9/2019	**2,680**	**3,650**
	7/17/2019	**3,360**	**4,820**
45-E-2-MW			
	01/06	98	601
	03/06	76	600
	6/14/2006	85	576
	9/12/2006	81	529
	12/7/2006	82	560
	2/28/2007	**1,170**	**2,210**
	7/30/2007	**1,260**	**2,290**
	1/22/2008	**1,240**	**2,100**
	7/7/2008	**1,310**	**2,300**
	1/28/2009	**1,280**	**2,540**
	8/26/2009	**322**	880
	2/18/2010	**460**	**1,160**
	8/18/2010	144	612
	2/15/2011	124	629
	8/2/2011	**1,450**	**3,290**
	2/2/2012	**738**	**1,620**
	1/28/2016	NS	NS
	7/20/2016	170	676
	1/12/2017	**2,370**	**4,320**
	4/10/2017	NS	NS
	7/20/2017	**1,720**	**3,780**
	1/12/2018	**718**	**3,050**
	7/5/2018	**1,790**	**3,130**
	1/9/2019	**1,660**	**3,040**
	7/17/2019	**1,830**	**2,880**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-3-MW			
	2/28/2007	**3,360**	**6,800**
	7/26/2007	**3,780**	**9,560**
	1/22/2008	**3,660**	**6,030**
	7/7/2008	**3,590**	**7,750**
	1/28/2009	**3,820**	**8,410**
	8/26/2009	**3,520**	**6,870**
	2/18/2010	**3,270**	**7,990**
	8/18/2010	**4,060**	**6,590**
	2/15/2011	**4,320**	**6,820**
	8/2/2011	**1,960**	**8,490**
	2/3/2012	**3,920**	**8,480**
	1/28/2016	NS	NS
	7/20/2016	**2,870**	**6,790**
	1/11/2017	**2,920**	**6,030**
	4/10/2017	NS	NS
	7/20/2017	**2,870**	**5,620**
	1/12/2018	**2,990**	**4,940**
	7/5/2018	**3,360**	**5,750**
	1/9/2019	**3,760**	**5,240**
	7/17/2019	**4,010**	**6,440**
45-F-1-MW			
	01/06	**619**	**1,270**
	03/06	**714**	**1,394**
	6/13/2006	**1,500**	**3,620**
	9/12/2006	**983**	**1,650**
	12/8/2006	**1,300**	**2,840**
	2/28/2007	**1,430**	**3,160**
	7/30/2007	**1,550**	**2,610**
	1/22/2008	**1,530**	**2,400**
	7/7/2008	**1,380**	**2,610**
	1/29/2009	**1,420**	**2,450**
	8/27/2009	**1,380**	**2,140**
	2/18/2010	**655**	**1,980**
	8/18/2010	**1,160**	**1,960**
	2/15/2011	**1,020**	**1,690**
	8/2/2011	**1,270**	**2,650**
	2/3/2012	**1,090**	**2,500**
	1/28/2016	NS	NS
	7/20/2016	**632**	**1,760**
	1/12/2017	**1,010**	**1,900**
	4/10/2017	NS	NS
	7/20/2017	**751**	**1,700**
	1/12/2018	**896**	**1,990**
	7/5/2018	**923**	**1,840**
	1/9/2019	**901**	**1,840**
	7/17/2019	**1,060**	**1,770**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-FF-MW			
	01/06	**613**	**1,277**
	03/06	**3,090**	**5,086**
	6/13/2006	**3,870**	**11,500**
	9/12/2006	**4,610**	**7,280**
	12/7/2006	**4,910**	**10,600**
	2/28/2007	**5,060**	**8,960**
	2/28/2007	**4,890**	**11,100**
	7/30/2007	**5,020**	**8,780**
	1/22/2008	**5,160**	**9,100**
	7/7/2008	**5,220**	**9,870**
	1/28/2009	**4,900**	**8,540**
	8/27/2009	**5,760**	**9,120**
	2/18/2010	**3,210**	**7,340**
	8/18/2010	**5,830**	**9,360**
	2/15/2011	**6,000**	**10,200**
	8/4/2011	**5,510**	**12,100**
	2/2/2012	**4,360**	**9,680**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**9,940**
	1/12/2017	**4,800**	**11,200**
	4/10/2017	NS	NS
	7/20/2017	**4,170**	**8,030**
	1/12/2018	**4,820**	**8,280**
	7/5/2018	**5,310**	**9,090**
	1/9/2019	**5,080**	**6,690**
	7/17/2019	**6,060**	**7,320**
58-B-1-MW			
	01/06	**836**	**1,624**
	03/06	**1,874**	**3,138**
	6/14/2006	**976**	**2,310**
	9/12/2006	**3,440**	**5,290**
	12/7/2006	**3,230**	**7,600**
	2/28/2007	**3,350**	**7,370**
	7/26/2007	**4,680**	**8,890**
	1/22/2008	**3,220**	**5,110**
	7/7/2008	**2,980**	**6,110**
	1/28/2009	**3,150**	**6,330**
	8/26/2009	**3,320**	**5,820**
	2/18/2010	**2,850**	**6,710**
	8/19/2010	**4,120**	**9,970**
	2/15/2011	**4,180**	**6,850**
	8/2/2011	**5,240**	**11,700**
	2/6/2012	**5,510**	**10,000**
	1/28/2016	NS	NS
	7/22/2016	**3,550**	**8,460**
	1/13/2017	**7,510**	**9,410**
	4/10/2017	NS	NS
	7/20/2017	**5,480**	**9,230**
	1/12/2018	**5,250**	**8,620**
	7/5/2018	**6,440**	**10,000**
	1/7/2019	**5,240**	**8,120**
	7/15/2019	**6,180**	**9,750**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
58-B-2-MW			
	01/06	**1,103**	**2,024**
	03/06	**650**	**1,329**
	6/14/2006	**4,510**	**8,700**
	9/12/2006	**8,220**	**19,000**
	12/7/2006	**4,700**	**10,700**
	2/28/2007	**5,900**	**10,800**
	7/26/2007	**6,270**	**12,200**
	1/22/2008	**6,200**	**11,300**
	7/7/2008	**5,830**	**11,600**
	1/28/2009	**5,260**	**10,600**
	8/26/2009	**6,260**	**10,800**
	2/18/2010	**4,870**	**9,680**
	8/19/2010	**6,640**	**10,200**
	2/15/2011	**4,100**	**7,390**
	8/2/2011	**1,410**	**13,600**
	2/6/2012	**5,480**	**13,600**
	1/28/2016	**3,550**	**7,440**
	7/22/2016	**2,740**	**6,130**
	1/13/2017	**4,190**	**8,700**
	4/10/2017	NS	NS
	7/20/2017	**3,340**	**5,910**
	1/12/2018	**3,470**	**5,860**
	7/5/2018	**3,900**	**6,410**
	1/7/2019	**4,190**	**5,470**
	7/15/2019	**3,850**	**6,310**
58-B-3-MW			
	2/28/2007	**607**	**2,150**
	7/26/2007	**1,200**	**2,340**
	1/22/2008	**1,250**	**2,010**
	7/7/2008	**1,140**	**2,480**
	1/28/2009	**1,300**	**2,400**
	8/26/2009	**1,370**	**2,320**
	2/19/2010	**1,070**	**2,570**
	8/19/2010	**1,450**	**2,340**
	2/15/2011	**1,680**	**2,500**
	8/2/2011	**1,450**	**2,920**
	2/3/2012	**1,330**	**2,660**
	1/29/2013	**1,360**	**2,370**
	7/30/2013	**1,230**	**2,540**
	1/15/2014	**1,250**	**2,920**
	7/16/2014	**1,450**	**4,360**
	1/14/2015	**312**	**938**
	7/15/2015	**715**	**1,770**
	1/28/2016	**688**	**1,660**
	7/22/2016	**570**	**1,290**
	1/10/2017	**683**	**1,830**
	4/10/2017	NS	NS
	7/20/2017	**666**	**1,440**
	1/12/2018	**791**	**1,290**
	7/6/2018	**976**	**1,580**
	1/7/2019	**900**	**2,070**
	7/12/2019	**1,470**	**2,520**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
MW-2			
	8/10/2015	204	**1,950**
	1/28/2016	NS	NS
	7/21/2016	NS	NS
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/6/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS
	7/16/2019	NS	NS
	10/17/2019	NS	NS
MW-3			
	8/10/2015	249	**1,100**
	1/27/2016	**484**	**1,070**
	7/21/2016	**486**	**1,430**
	1/11/2017	**564**	**1,410**
	4/10/2017	**605**	**1,960**
	7/19/2017	**572**	**1,400**
	10/5/2017	**569**	**1,520**
	1/12/2018	**566**	**1,410**
	4/5/2018	**589**	**1,300**
	7/3/2018	**593**	**1,310**
	10/4/2018	**626**	**1,310**
	1/8/2019	194	619
	4/9/2019	**636**	**1,370**
	7/16/2019	**475**	**1,320**
	10/17/2019	**502**	**1,350**
MW-4			
	8/10/2015	240	**1,850**
	1/27/2016	250	941
	7/21/2016	**355**	**2,260**
	1/11/2017	**353**	**1,260**
	4/10/2017	NS	NS
	7/20/2017	**325**	1,000
	10/5/2017	**347**	**1,010**
	1/12/2018	**345**	968
	4/6/2018	**350**	413
	7/3/2018	**338**	831
	10/4/2018	**350**	883
	1/8/2019	258	426
	4/9/2019	**377**	877
	7/16/2019	269	889
	10/17/2019	**325**	902

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-5			
	8/10/2015	**837**	**2,960**
	1/28/2016	**459**	**2,130**
	7/21/2016	**397**	**1,690**
	1/11/2017	**364**	**1,400**
	4/10/2017	**346**	**1,560**
	7/19/2017	**309**	**1,170**
	10/5/2017	**302**	**1,040**
	1/12/2018	293	**1,130**
	4/5/2018	289	**1,140**
	7/3/2018	274	**1,020**
	10/4/2018	278	**1,050**
	1/8/2019	244	**1,050**
	4/9/2019	300	257
	7/16/2019	219	**1,120**
	10/17/2019	257	1,000
MW-6			
	8/10/2015	**578**	**2,180**
	1/28/2016	**484**	**2,090**
	7/21/2016	**450**	**1,590**
	1/11/2017	**441**	**1,330**
	4/10/2017	**468**	**1,760**
	7/18/2017	**439**	**1,650**
	10/5/2017	**407**	**1,530**
	1/12/2018	**408**	**1,490**
	4/5/2018	**411**	**1,430**
	7/3/2018	**402**	**1,340**
	10/4/2018	**404**	**1,450**
	1/8/2019	**372**	**1,510**
	4/9/2019	**418**	**1,500**
	7/15/2019	**395**	**1,470**
	10/17/2019	**383**	**1,490**
MW-7			
	8/10/2015	**772**	**3,230**
	1/28/2016	260	**2,620**
	7/21/2016	**524/508**	**2,510/2,410**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/3/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS
	7/15/2019	NS	NS
	10/17/2019	NS	NS

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-8			
	8/10/2015	**711**	**2,430**
	1/28/2016	**763**	**2,310**
	7/21/2016	**758**	**2,140**
	1/13/2017	**985**	**2,410**
	4/7/2017	**933**	**2,120**
	7/17/2017	**845**	**2,280**
	10/4/2017	**803**	**2,210**
	1/12/2018	**813**	**2,250**
	4/5/2018	**839**	**2,300**
	7/5/2018	**868**	**2,350**
	10/3/2018	**888**	**2,490**
	1/8/2019	**852**	**2,160**
	4/5/2019	**1,060**	**2,460**
	7/15/2019	**884**	**2,390**
	10/16/2019	**919**	**2,400**
MW-9			
	8/10/2015	**1,650**	**3,390**
	1/28/2016	**2,160**	**4,410**
	7/21/2016	**2,140**	**6,790**
	1/13/2017	**3,520**	**4,540**
	4/7/2017	**3,070**	**6,760**
	7/17/2017	**2,830**	**4,930**
	10/4/2017	**2,230**	**4,730**
	1/12/2018	**2,540**	**4,380**
	4/5/2018	**2,930**	**4,690**
	7/5/2018	**2,880**	**4,250**
	10/3/2018	**2,910**	**4,270**
	1/7/2019	**2,620**	807
	4/5/2019	**1,200**	**4,230**
	7/15/2019	**2,620**	**4,240**
	10/16/2019	**2,520**	**4,610**
MW-10			
	8/10/2015	**3,480**	**7,980**
	1/28/2016	**5,320**	**9,850**
	7/20/2016	**5,920**	**12,400**
	1/12/2017	**6,360**	**10,500**
	4/7/2017	**5,930**	**12,700**
	7/18/2017	**5,320**	**9,720**
	10/5/2017	**5,190**	**8,560**
	1/12/2018	**5,350**	**9,650**
	4/5/2018	**5,470**	**8,630**
	7/3/2018	**5,340**	**11,000**
	10/3/2018	**5,880**	**8,570**
	1/8/2019	**5,130**	**7,050**
	4/5/2019	**5,760**	**8,100**
	7/15/2019	**4,860**	**8,210**
	10/16/2019	**4,980**	**8,520**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-11			
	8/10/2015	**458**	**3,260**
	1/28/2016	**5,280**	**5,720**
	7/21/2016	**6,830**	**16,100**
	1/11/2017	**7,310**	**18,800**
	4/10/2017	**7,760**	**17,100**
	7/18/2017	**7,620**	**12,700**
	10/5/2017	**7,110**	**12,600**
	1/12/2018	**8,120**	**12,700**
	4/5/2018	**7,990**	**11,000**
	7/3/2018	**7,940**	**11,800**
	10/4/2018	**8,310**	**12,000**
	1/8/2019	**8,240**	**9,730**
	4/9/2019	**7,840**	**11,700**
	7/15/2019	**7,680**	**11,800**
	10/17/2019	**7,590**	**12,400**
MW-12			
	8/10/2015	**7,680**	**20,500**
	1/28/2016	**12,800**	**24,400**
	7/20/2016	**12,000**	**27,500**
	1/11/2017	**16,400**	**24,100**
	4/7/2017	**13,900**	**28,900**
	7/18/2017	**13,600**	**23,000**
	10/5/2017	**14,000**	**23,000**
	1/12/2018	**13,100**	**21,400**
	4/5/2018	**13,300**	**19,400**
	7/3/2018	**13,200**	**20,200**
	10/4/2018	**15,000**	**24,400**
	1/8/2019	**13,900**	**14,000**
	4/10/2019	**14,100**	**21,700**
	7/15/2019	**11,000**	**22,600**
	10/16/2019	**12,600**	**23,400**
MW-13			
	8/10/2015	**1,740**	**4,100**
	1/28/2016	**1,850**	**4,110**
	7/21/2016	**1,650**	**5,300**
	1/11/2017	**1,270**	**1,660**
	4/10/2017	**1,890**	**4,760**
	7/19/2017	**1,730**	**4,010**
	10/5/2017	**1,910**	**5,260**
	1/12/2018	**1,750**	**3,920**
	4/6/2018	**1,750**	**3,920**
	7/3/2018	**2,280**	**4,560**
	10/4/2018	**2,200**	**3,900**
	1/8/2019	**1,880**	**3,810**
	4/10/2019	**2,020**	**4,160**
	7/16/2019	**1,400**	**4,440**
	10/17/2019	**1,960**	**3,720**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-14			
	8/11/2015	**989**	**3,040**
	1/27/2016	**1,420**	**2,560**
	7/21/2016	**1,480**	**3,800**
	1/11/2017	**1,470**	**2,890**
	4/10/2017	**1,530**	**4,400**
	7/19/2017	**1,500**	**3,330**
	10/5/2017	**1,510**	**3,460**
	1/12/2018	**1,590**	**2,910**
	4/6/2018	**1,720**	**1,270**
	7/3/2018	**1,540**	**2,660**
	10/4/2018	**1,690**	**2,620**
	1/8/2019	**1,630**	**2,890**
	4/9/2019	**1,610**	**2,940**
	7/16/2019	**1,110**	**3,120**
	10/17/2019	**1,670**	**2,940**
MW-15			
	8/11/2015	**600**	**1,730**
	1/28/2016	**617**	**1,180**
	7/21/2016	**554**	**1,370**
	1/11/2017	**710**	**1,640**
	4/10/2017	**785**	**2,030**
	7/19/2017	**652**	**1,220**
	10/5/2017	**831**	**1,690**
	1/12/2018	**873**	**1,770**
	4/6/2018	**877**	**1,900**
	7/3/2018	**914**	**1,650**
	10/4/2018	**1,030**	**1,740**
	1/8/2019	**995**	**2,290**
	4/10/2019	**1,110**	**1,740**
	7/16/2019	**1,300**	**1,800**
	10/17/2019	**1,010**	**1,850**
MW-16			
	8/11/2015	**435**	**1,410**
	1/28/2016	**323**	**1,020**
	7/21/2016	195	776
	1/11/2017	**472**	**1,180**
	4/10/2017	**396**	**1,400**
	7/19/2017	**444**	**1,100**
	10/5/2017	**426**	**1,210**
	1/12/2018	**364**	**1,100**
	4/6/2018	**432**	**1,310**
	7/3/2018	**430**	**1,160**
	10/4/2018	**474**	**1,210**
	1/8/2019	**468**	**1,260**
	4/10/2019	**508**	**1,240**
	7/16/2019	**301**	**1,060**
	10/17/2019	**393**	**1,110**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-17			
	8/12/2015	**5,800**	**13,400**
	1/28/2016	**4,400**	823
	7/21/2016	**3,370**	**7,900**
	1/11/2017	**9,760**	**16,200**
	4/10/2017	**9,620**	**20,400**
	7/19/2017	**8,160**	**14,400**
	10/6/2017	**11,400**	**18,800**
	1/12/2018	**10,100**	**15,300**
	4/6/2018	**9,590**	**14,800**
	7/3/2018	**8,570**	**15,000**
	10/4/2018	**11,300**	**17,700**
	1/8/2019	**10,100**	**11,100**
	4/10/2019	**9,440**	**14,500**
	7/16/2019	**7,880**	**13,100**
	10/17/2019	**9,620**	**15,300**
MW-18			
	8/12/2015	**13,400**	**26,600**
	1/28/2016	**13,900**	**25,300**
	7/20/2016	**8,000**	**18,900**
	1/12/2017	**14,200**	**33,700**
	4/7/2017	**19,100**	**37,800**
	7/18/2017	**13,900**	**23,500**
	10/6/2017	**19,000**	**52,900**
	1/12/2018	**18,800**	**30,300**
	4/5/2018	**20,000**	**30,400**
	7/3/2018	**22,000**	**38,500**
	10/4/2018	**21,100**	**31,600**
	1/8/2019	**17,000**	**19,000**
	4/9/2019	**24,600**	**33,300**
	7/15/2019	**21,000**	**33,100**
	10/16/2019	**19,900**	**37,300**
MW-19			
	8/12/2015	**4,780**	**11,300**
	1/28/2016	**5,130**	**10,100**
	7/20/2016	**5,160**	**10,200**
	1/12/2017	**6,370**	**9,560**
	4/7/2017	**6,000**	**13,600**
	7/18/2017	**5,310**	**9,840**
	10/6/2017	**5,290**	**9,620**
	1/12/2018	**6,160**	**10,300**
	4/5/2018	**6,600**	**9,880**
	7/5/2018	**6,580**	**11,500**
	10/4/2018	**6,980**	**11,600**
	1/8/2019	**6,570**	**9,300**
	4/9/2019	**7,000**	**10,500**
	7/15/2019	**6,860**	**11,000**
	10/16/2019	**7,160**	**12,800**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-20			
	8/12/2015	**995**	**2,760**
	1/28/2016	**1,200**	**2,390**
	7/20/2016	**1,060**	**2,920**
	1/12/2017	**1,500**	**1,970**
	4/7/2017	**1,200**	**3,300**
	7/18/2017	**1,110**	**2,540**
	10/6/2017	**1,100**	**2,220**
	1/12/2018	**1,130**	**2,410**
	4/5/2018	**1,100**	**2,130**
	7/5/2018	**1,150**	**2,160**
	10/3/2018	**1,340**	**2,490**
	1/8/2019	**1,070**	**2,180**
	4/5/2019	**1,430**	**2,410**
	7/15/2019	**1,270**	**2,330**
	10/16/2019	**1,260**	**2,500**
MW-21			
	7/21/2016	**7,920**	**19,400**
	1/11/2017	**7,360**	**11,800**
	4/10/2017	**6,600**	**17,900**
	7/19/2017	**5,480**	**12,200**
	10/6/2017	**7,210**	**13,500**
	1/12/2018	**6,800**	**10,900**
	4/6/2018	**7,630**	**11,000**
	7/3/2018	**6,860**	**11,100**
	10/4/2018	**7,400**	**11,400**
	1/8/2019	**7,530**	**9,420**
	4/10/2019	**6,970**	**11,000**
	7/16/2019	**6,720**	**11,000**
	10/17/2019	**7,010**	**11,000**
MW-22			
	3/3/2017	**12,100**	**19,000**
	4/10/2017	**14,000**	**33,000**
	7/19/2017	**8,720**	**17,400**
	10/6/2017	**11,400**	**20,200**
	1/12/2018	**10,400**	**16,200**
	4/6/2018	**10,500**	**17,200**
	7/3/2018	**10,300**	**16,300**
	10/4/2018	**14,200**	**18,700**
	1/8/2019	**12,000**	**10,900**
	4/10/2019	**10,900**	**16,200**
	7/16/2019	**11,300**	**18,000**
	10/17/2019	**12,400**	**20,600**
MW-23			
	7/21/2016	**1,430**	**3,050**
	1/11/2017	**2,120**	**4,130**
	4/10/2017	**3,010**	**8,750**
	7/19/2017	**1,680**	**3,550**
	10/6/2017	**4,520**	**7,370**
	1/12/2018	**5,230**	**9,340**
	4/6/2018	**6,830**	**10,100**
	7/3/2018	**4,390**	**6,870**
	10/4/2018	**6,090**	**8,980**
	1/8/2019	**7,910**	**9,780**
	4/10/2019	**6,540**	**10,200**
	7/16/2019	**3,420**	**9,780**
	10/17/2019	**3,840**	**10,200**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-24			
	7/20/2016	**3,720**	**8,910**
	1/12/2017	**4,740**	**8,690**
	4/7/2017	**4,520**	**11,200**
	7/18/2017	**3,880**	**8,600**
	10/6/2017	**3,930**	**8,500**
	1/12/2018	**4,060**	**8,170**
	4/5/2018	**3,980**	**7,080**
	7/3/2018	**4,140**	**8,210**
	10/4/2018	**4,850**	**8,870**
	1/8/2019	**3,320**	**1,020**
	4/9/2019	**4,370**	**8,250**
	7/15/2019	**4,180**	**8,860**
	10/16/2019	**4,150**	**8,980**
MW-25			
	7/21/2016	**560**	**1,510**
	1/11/2017	**24,400**	**29,700**
	4/10/2017	**23,100**	**49,600**
	7/18/2017	**18,800**	**32,800**
	10/6/2017	**18,300**	**33,200**
	1/12/2018	**20,900**	**31,400**
	4/5/2018	**22,400**	**32,800**
	7/3/2018	**23,600**	**37,600**
	10/4/2018	**26,500**	**39,000**
	1/8/2019	**23,500**	**29,800**
	4/9/2019	**24,100**	**33,100**
	7/15/2019	**23,200**	**33,200**
	10/17/2019	**20,900**	**24,800**
MW-26			
	1/12/2017	**1,220**	**2,840**
	4/7/2017	**1,190**	**3,160**
	7/18/2017	**1,140**	**3,060**
	10/6/2017	**1,120**	**2,570**
	1/12/2018	**1,160**	**2,860**
	4/5/2018	**1,230**	**2,730**
	7/5/2018	**1,210**	**2,810**
	10/4/2018	**1,340**	**2,750**
	1/8/2019	**1,190**	**2,740**
	4/9/2019	**1,340**	**2,830**
	7/15/2019	**1,360**	**2,960**
	10/16/2019	**1,340**	**3,250**
MW-27			
	7/20/2016	**1,340**	**3,080**
	1/11/2017	**2,400**	**4,160**
	4/7/2017	**2,380**	**4,520**
	7/18/2017	**2,110**	**4,150**
	10/6/2017	**2,280**	**4,610**
	1/12/2018	**2,260**	**4,220**
	4/5/2018	**2,400**	**4,250**
	7/3/2018	**2,510**	**4,790**
	10/3/2018	**3,030**	**4,700**
	1/8/2019	**2,420**	**4,110**
	4/5/2019	**2,830**	**4,490**
	7/15/2019	**2,540**	**4,440**
	10/16/2019	**2,490**	**4,160**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-28			
	1/10/2017	**917**	**2,520**
	4/7/2017	**1,090**	**2,650**
	7/17/2017	**1,190**	**2,730**
	10/6/2017	**1,240**	**3,270**
	1/12/2018	**1,470**	**1,280**
	4/5/2018	**1,540**	**2,660**
	7/6/2018	**1,610**	**2,540**
	10/3/2018	**1,760**	**3,020**
	1/7/2019	**1,510**	**3,050**
	4/5/2019	**851**	**3,260**
	7/15/2019	**2,180**	**3,490**
	10/16/2019	**2,410**	**3,780**
MW-29			
	1/10/2017	**354**	946
	4/7/2017	**386**	**1,160**
	7/17/2017	**393**	**1,060**
	10/6/2017	**374**	**1,100**
	1/12/2018	**397**	601
	4/5/2018	**396**	**1,100**
	7/6/2018	**397**	860
	10/3/2018	**409**	**1,070**
	1/7/2019	**359**	**7,270**
	4/5/2019	**508**	**1,100**
	7/15/2019	**500**	**1,140**
	10/16/2019	**501**	**1,200**
MW-30			
	7/19/2017	**2,360**	**4,540**
	10/6/2017	**2,420**	**5,270**
	1/12/2018	**2,350**	**4,160**
	4/6/2018	**2,240**	**1,310**
	7/3/2018	**2,280**	**3,650**
	10/4/2018	**2,550**	**3,820**
	1/8/2019	**2,460**	**3,860**
	4/10/2019	**2,400**	**4,160**
	7/16/2019	**1,500**	**4,200**
	10/17/2019	**2,340**	**3,880**
MW-31			
	7/18/2017	**7,980**	**13,600**
	10/6/2017	**8,540**	**16,600**
	1/12/2018	**10,700**	**16,400**
	4/5/2018	**11,700**	**17,700**
	7/3/2018	**12,100**	**19,800**
	10/4/2018	**12,800**	**19,500**
	1/8/2019	**11,100**	**10,300**
	4/5/2019	**11,800**	**16,200**
	7/15/2019	**10,900**	**16,600**
	10/16/2019	**10,500**	**17,900**
MW-32			
	4/10/2019	**373**	**1,170**
	7/15/2019	**314**	**1,090**
	10/15/2019	271	**1,110**
MW-33			
	4/10/2019	183	912
	7/15/2019	153	988
	10/15/2019	156	**1,040**
MW-34			
	4/10/2019	69.9	600
	7/15/2019	64.2	621
	10/15/2019	66.5	604

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
NM-MW-1			
	12/3/2015	266	**1,540**
	1/28/2016	283	**1,470**
	7/22/2016	294	**1,420**
	1/12/2017	**383**	**1,570**
	4/7/2017	291	**1,510**
	7/13/2017	287	**1,520**
	10/6/2017	271	**1,500**
	1/12/2018	271	933
	4/5/2018	263	**1,400**
	7/6/2018	275	**1,350**
	10/3/2018	279	**1,460**
	1/7/2019	256	**1,370**
	4/4/2019	**330**	**1,400**
	7/11/2019	291	**1,380**
	10/15/2019	281	**1,450**
NM-MW-2			
	12/3/2015	**640**	**2,620**
	1/28/2016	**658**	**1,920**
	7/22/2016	**638**	858
	1/12/2017	**790**	**1,770**
	4/7/2017	**656**	**1,590**
	7/13/2017	**653**	**1,340**
	10/6/2017	**650**	**1,410**
	1/12/2018	**639**	990
	4/5/2018	**610**	**1,210**
	7/6/2018	**679**	**1,160**
	10/3/2018	**674**	**1,270**
	1/7/2019	**616**	**1,210**
	4/4/2019	**736**	**1,230**
	7/11/2019	**397**	**1,330**
	10/15/2019	**666**	**1,240**
NM-MW-3			
	12/3/2015	**648**	**3,900**
	1/28/2016	**327**	**1,870**
	7/22/2016	121	524
	1/12/2017	224	581
	4/7/2017	161	564
	7/13/2017	186	592
	10/6/2017	276	626
	1/12/2018	221	501
	4/5/2018	180	601
	7/6/2018	220	625
	10/3/2018	246	708
	1/7/2019	**447**	**1,250**
	4/4/2019	259	653
	7/11/2019	184	581
	10/15/2019	183	596

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-4			
	12/3/2015	**739**	**2,960**
	1/28/2016	22.8	821
	7/22/2016	40.9	444
	1/12/2017	48.7	379
	4/7/2017	35.0	410
	7/13/2017	36.1	422
	10/6/2017	42.0	468
	1/12/2018	39	217
	4/5/2018	34	410
	7/6/2018	40.6	414
	10/3/2018	39.7	411
	1/7/2019	258	**1,240**
	4/4/2019	188	420
	7/11/2019	40.6	423
	10/15/2019	46.2	430
NM-MW-5			
	12/3/2015	DRY	DRY
	1/28/2016	144	**1,250**
	7/22/2016	129	**1,270**
	1/12/2017	182	**1,320**
	4/7/2017	145	**1,260**
	7/13/2017	147	**1,340**
	10/6/2017	144	**1,090**
	1/12/2018	133	893
	4/5/2018	134	**1,300**
	7/6/2018	140	**1,240**
	10/3/2018	138	**1,290**
	1/7/2019	142	**1,280**
	4/4/2019	175	**1,240**
	7/11/2019	149	**1,290**
	10/15/2019	170	**1,320**
NM-MW-6			
	12/2/2015	188	**1,240**
	1/28/2016	183	**1,060**
	7/22/2016	121	817
	1/12/2017	168	825
	4/7/2017	143	852
	7/13/2017	138	818
	10/6/2017	132	742
	1/12/2018	137	468
	4/5/2018	127	836
	7/6/2018	134	801
	10/3/2018	138	833
	1/7/2019	113	813
	4/4/2019	161	813
	7/12/2019	143	863
	10/15/2019	139	827

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-7			
	12/3/2015	**696**	**3,200**
	1/28/2016	**1,840**	**3,150**
	7/22/2016	**1,890**	**5,320**
	1/12/2017	**2,390**	**3,770**
	4/7/2017	**2,180**	**4,770**
	7/13/2017	**2,120**	**4,100**
	10/6/2017	**2,070**	**4,200**
	1/12/2018	**2,110**	**2,370**
	4/5/2018	**2,090**	**4,270**
	7/6/2018	**2,330**	**3,780**
	10/3/2018	**2,380**	**4,050**
	1/7/2019	**2,040**	**5,190**
	4/4/2019	**1,940**	**4,160**
	7/11/2019	**2,600**	**4,390**
	10/15/2019	**2,370**	**4,240**
NM-MW-8			
	3/3/2017	**4,870**	**9,740**
	4/7/2017	**4,870**	**12,800**
	7/13/2017	**5,010**	**9,040**
	10/4/2017	**5,000**	**10,900**
	1/12/2018	**5,260**	**5,240**
	4/5/2018	**5,110**	**9,160**
	7/6/2018	**5,960**	**9,620**
	10/3/2018	**6,260**	**11,000**
	1/7/2019	**4,630**	**8,040**
	4/4/2019	**6,690**	**10,100**
	7/11/2019	**6,200**	**9,310**
	10/15/2019	**7,120**	**10,700**
NM-MW-9			
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/17/2017	224	776
	10/4/2017	263	813
	1/12/2018	221	717
	4/5/2018	234	804
	7/6/2018	252	785
	10/3/2018	258	799
	1/7/2019	**2,620**	**4,160**
	4/5/2019	297	786
	7/12/2019	264	797
	10/15/2019	243	812
NM-MW-10			
	1/10/2017	**314**	**1,550**
	4/7/2017	**355**	**1,570**
	7/17/2017	**308**	**1,600**
	10/4/2017	**302**	**1,550**
	1/12/2018	**314**	**1,050**
	4/5/2018	**301**	**1,620**
	7/6/2018	**308**	**1,450**
	10/3/2018	**315**	**1,520**
	1/7/2019	290	**1,530**
	4/4/2019	**396**	**1,670**
	7/12/2019	**354**	**1,680**
	10/15/2019	**340**	**1,670**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-11			
	1/10/2017	190	**2,100**
	4/7/2017	158	**1,980**
	7/17/2017	135	**2,020**
	10/4/2017	154	**1,940**
	1/12/2018	155	**1,710**
	4/5/2018	**699**	**1,920**
	7/6/2018	143	**1,820**
	10/3/2018	152	**1,920**
	1/7/2019	154	**1,840**
	4/4/2019	185	**1,870**
	7/12/2019	157	**1,980**
	10/15/2019	134	**1,530**
NM-MW-12			
	3/3/2017	**760**	**1,460**
	4/7/2017	**725**	**2,230**
	7/17/2017	**726**	**1,540**
	10/4/2017	**643**	**1,590**
	1/12/2018	**663**	**1,470**
	4/5/2018	**656**	**1,430**
	7/6/2018	**665**	**1,250**
	10/3/2018	**668**	**1,390**
	1/7/2019	**596**	**1,300**
	4/4/2019	**739**	**1,310**
	7/12/2019	**657**	524
	10/15/2019	**512**	**1,380**
NM-MW-13			
	3/3/2017	183	**1,020**
	4/7/2017	192	**1,110**
	7/17/2017	185	**1,100**
	10/4/2017	183	**1,100**
	1/12/2018	188	965
	4/5/2018	180	**1,090**
	7/6/2018	184	**1,050**
	10/3/2018	185	**1,110**
	1/7/2019	165	**1,070**
	4/4/2019	225	**1,090**
	7/12/2019	199	**1,090**
	10/15/2019	179	**1,100**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Non-Remedial Wells			
DHU-FWS			
	01/06	**564**	**3,082**
	03/06	**581**	**3,181**
	6/14/2006	**553**	**3,020**
	9/12/2006	**584**	**2,650**
	12/6/2006	**636**	**3,070**
	7/30/2007	**646**	**3,010**
	1/21/2008	**637**	**3,140**
	7/7/2008	**546**	**3,050**
	1/26/2009	**610**	**3,040**
	8/21/2009	**580**	**3,000**
	2/17/2010	NA	**3,000**
	2/18/2010	**401**	NA
	8/16/2010	**771**	**3,060**
	2/10/2011	**577**	**2,840**
	8/2/2011	**612**	**2,960**
	1/31/2012	**866**	**2,910**
	7/19/2016	**629**	**2,810**
	1/11/2017	**670**	**3,060**
	4/10/2017	NS	NS
	7/14/2017	**587**	**3,020**
	10/9/2017	**565**	**2,990**
	1/12/2018	**615**	**2,820**
	4/5/2018	**572**	**2,640**
	7/5/2018	**593**	**2,710**
	10/3/2018	**593**	**2,830**
	1/7/2019	**611**	**2,900**
	4/5/2019	**658**	**3,120**
	7/15/2019	**624**	**3,020**
	10/16/2019	**603**	**2,950**
DHU-Office			
	04/06	**376**	**2,434**
DHU- Office (CHRM)			
	04/06	**382**	**2,460**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Livermore			
	01/06	NS	NS
	03/06	**6,946**	**11,381**
	6/14/2006	**8,320**	**14,300**
	9/12/2006	**7,400**	**12,000**
	12/7/2006	**5,750**	**12,000**
	2/28/2007	**5,770**	**11,200**
	7/30/2007	**5,910**	**12,600**
	7/7/2008	**5,280**	**9,340**
	1/29/2009	**4,670**	**8,200**
	8/25/2009	**4,630**	**8,260**
	2/18/2010	**3,700**	**7,560**
	8/20/2010	**4,390**	**7,920**
	2/15/2011	**4,400**	**7,430**
	8/5/2011	**4,230**	**7,230**
	2/3/2012	**3,310**	**6,790**
	8/7/2012	**3,730**	NA
	1/30/2013	**3,810**	**6,080**
	7/31/2013	**3,630**	**6,240**
	1/15/2014	**3,450**	**5,580**
	7/16/2014	**3,190**	**6,830**
	1/14/2015	**3,200**	**6,490**
	7/17/2015	**5,380**	**11,500**
	1/29/2016	**3,110**	**4,530**
	7/21/2016	**3,040**	**5,710**
	1/11/2017	**2,940**	**4,970**
	4/10/2017	NS	NS
	7/19/2017	**2,870**	**4,800**
	10/9/2017	**2,700**	**4,200**
	1/12/2018	**2,700**	**4,830**
	4/6/2018	**2,530**	**1,430**
	7/3/2018	**2,560**	**4,580**
	10/4/2018	**2,710**	**4,020**
	1/8/2019	**2,530**	**4,330**
	4/10/2019	**2,660**	**4,670**
	7/16/2019	**1,340**	**4,720**
	10/17/2019	**2,490**	**4,160**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Pure Water Tower			
	01/06	**6,976**	**12,456**
	03/06	NS	NS
	6/14/2006	**7,890**	**16,200**
	9/12/2006	**8,200**	**13,100**
	12/6/2006	**8,070**	**14,600**
	2/27/2007	**6,400**	**12,800**
	7/30/2007	**7,450**	**15,400**
	1/21/2008	**11,800**	**20,100**
	1/26/2009	**5,010**	**12,100**
	8/21/2009	**6,920**	**12,900**
	2/17/2010	NA	**19,800**
	2/18/2010	**9,880**	NA
	8/16/2010	**11,800**	**23,000**
	6/28/2011	**9,260**	**20,500**
	8/5/2011	**6,470**	**12,900**
	1/31/2012	**5,380**	**11,500**
Pure Water Well			
	01/06	NS	NS
	03/06	NS	NS
	6/14/2006	**5,820**	**11,200**
	9/12/2006	**6,260**	**13,900**
	12/6/2006	**2,790**	**5,680**
	7/23/2007	**4,060**	**9,500**
	1/21/2008	**2,560**	**4,590**
	7/7/2008	**1,030**	**2,320**
	1/26/2009	**4,390**	**10,400**
	8/21/2009	**5,240**	**9,840**
	2/17/2010	NA	**9,160**
	2/18/2010	**1,810**	NA
	2/10/2011	**5,070**	**12,900**
	8/5/2011	**5,430**	**12,900**
	8/21/2012	**4,650**	**10,200**
	1/30/2013	**4,880**	**8,800**
	10/25/2013	**5,340**	**11,100**
	1/13/2014	**4,830**	**10,700**
	7/17/2015	**754**	**1,890**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
RRR Ranch Windmill			
	01/06	NS	NS
	03/06	**1,693**	**3,527**
	6/14/2006	**1,760**	**3,640**
	1/28/2016	**1,430**	**2,760**
	7/22/2016	**1,460**	**3,940**
	1/12/2017	**1,760**	**3,030**
	4/10/2017	NS	NS
	7/17/2017	**1,570**	**3,300**
	10/9/2017	**2,620**	**3,870**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,620**	**3,110**
	7/6/2018	**1,670**	**3,030**
	10/3/2018	**1,660**	**3,000**
	1/7/2019	**1,290**	**2,950**
	4/4/2019	47.4	**3,110**
	7/11/2019	**1,800**	**3,560**
	10/15/2019	**1,800**	**3,500**
TRAC-4			
	01/06	**432**	**1,237**
	03/06	**581**	**3,181**
	6/14/2006	**402**	**1,270**
	9/11/2006	**428**	**1,310**
	12/7/2006	**456**	**1,300**
	2/27/2007	**435**	**1,240**
	7/30/2007	**493**	**1,320**
	1/21/2008	**421**	**1,220**
	7/7/2008	**461**	**1,290**
	1/26/2009	**546**	**1,320**
	8/21/2009	**471**	**1,330**
	2/17/2010	NA	**1,320**
	2/18/2010	**469**	NA
	2/15/2011	**549**	**1,340**
	8/4/2011	**455**	**1,250**
	1/31/2012	**445**	**1,150**
	8/2/2012	**433**	NA
	7/31/2013	**427**	**1,170**
	7/18/2014	**470**	**1,480**
	7/17/2015	**425**	**1,210**
	1/28/2016	**400**	**1,280**
	7/19/2016	NS	NS
	1/11/2017	**377**	**1,160**
	4/10/2017	NS	NS
	7/19/2017	**350**	**1,100**
	10/9/2017	**348**	**1,110**
	1/12/2018	**335**	**1,120**
	4/6/2018	**401**	**1,040**
	7/3/2018	**343**	**1,040**
	10/4/2018	**347**	**1,070**
	1/7/2019	**315**	**1,080**
	4/9/2019	**350**	**1,070**
	7/16/2019	**333**	**1,110**
	10/17/2019	**323**	**1,070**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
TRAC-8			
	01/06	**2,090**	**3,786**
	03/06	**2,090**	**3,801**
	6/14/2006	**1,740**	**3,830**
	9/11/2006	**1,990**	**4,630**
	12/6/2006	**2,130**	**4,600**
	2/27/2007	**2,220**	**4,630**
	7/30/2007	**2,220**	**5,110**
	1/21/2008	**2,100**	**3,580**
	7/7/2008	**2,010**	**4,170**
	1/26/2009	**2,250**	**4,280**
	8/21/2009	**2,260**	**4,140**
	3/8/2010	**2,240**	**4,430**
	8/16/2010	**2,360**	**4,350**
	2/10/2011	**2,880**	**4,750**
	8/4/2011	**2,450**	**5,170**
	1/31/2012	**2,120**	**4,600**
	8/2/2012	**1,600**	NA
	1/30/2013	**1,920**	**3,420**
	7/31/2013	**1,760**	**4,060**
	1/13/2014	**1,650**	**3,270**
	7/17/2014	**1,770**	**4,670**
	1/13/2015	**1,810**	**4,300**
	1/28/2016	NS	NS
	7/19/2016	**2,000**	**4,380**
Wilson Ranch			
	01/06	**2,243**	**3,578**
	03/06	NS	NS
	6/14/2006	**2,410**	**4,980**
	9/12/2006	**2,510**	**4,450**
	12/7/2006	**2,350**	**4,750**
	2/27/2007	**2,110**	**4,020**
	7/30/2007	**2,440**	**5,240**
	1/21/2008	**2,690**	**3,880**
	7/7/2008	**2,030**	**3,810**
	8/25/2009	**2,320**	**5,350**
	2/12/2016	**888**	**2,230**
	7/19/2016	**1,500**	**3,250**
	1/10/2017	**1,300**	**3,130**
	4/10/2017	NS	NS
	7/16/2017	**1,140**	**2,380**
	10/9/2017	**1,200**	**2,800**
	1/12/2018	**673**	**1,600**
	4/6/2018	**1,360**	**2,950**
	7/6/2018	**1,330**	**2,190**
	10/3/2018	**1,380**	**2,680**
	1/7/2019	**1,070**	**2,420**
	4/4/2019	**1,480**	**2,440**
	7/12/2019	**1,300**	**2,530**
	10/15/2019	**928**	**1,880**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Smith Residential Well			
	1/13/2017	**1,600**	**2,580**
	4/10/2017	NS	NS
	7/17/2017	**1,050**	**2,230**
	10/9/2017	**1,260**	**2,660**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,280**	**2,670**
	7/6/2018	**1,340**	**2,140**
	10/3/2018	**1,310**	**2,260**
	1/7/2019	**1,020**	**2,230**
	4/5/2019	**1,510**	**2,490**
	7/12/2019	**1,300**	**2,660**
	10/15/2019	**1,180**	**2,140**

Notes:
1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result exceeded the TCEQ Secondary Drinking Water Standard.

NS = Not Sampled
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D
Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

August 20, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/25-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas July 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during July 2019. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control sample/laboratory control duplicate samples (LCS/LCSD), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/LCSD are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

i) All four MS/MSDs were reported outlying recoveries due to possible matrix interferences and were not assessed. No further action was required.

The laboratory also performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for TDS. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-2-W-191107	NM-MW-2	Water	07/11/2019	14:25	X	X	DUP
NM-MW-3-W-191107	NM-MW-3	Water	07/11/2019	14:35	X	X	MS/MSD
NM-MW-7-W-191107	NM-MW-7	Water	07/11/2019	14:55	X	X	
RRR Ranch Windmill-W-191107	Ranch Windmill	Water	07/11/2019	15:15	X	X	
NM-MW-4-W-191107	NM-MW-4	Water	07/11/2019	15:30	X	X	MS/MSD
NM-MW-8-W-191107	NM-MW-8	Water	07/11/2019	15:55	X	X	
NM-MW-1-W-191107	NM-MW-1	Water	07/11/2019	16:25	X	X	
NM-MW-5-W-191107	NM-MW-5	Water	07/11/2019	16:35	X	X	
NM-MW-9-W-191207	NM-MW-9	Water	07/12/2019	10:15	X	X	
NM-MW-6-W-191217	NM-MW-6	Water	07/12/2019	10:30	X	X	
NM-MW-11-W-191207	NM-MW-11	Water	07/12/2019	10:50	X	X	DUP
NM-MW-11-WD-191207	NM-MW-11	Water	07/12/2019	10:50	X	X	Field duplicate of NM-MW-11
NM-MW-13-W-191207	NM-MW-13	Water	07/12/2019	11:15	X	X	
NM-MW-10-W-191207	NM-MW-10	Water	07/12/2019	11:50	X	X	
NM-MW-12-W-191207	NM-MW-12	Water	07/12/2019	12:15	X	X	
Wilson Ranch Well-W-191207	WILSON RANCH WW	Water	07/12/2019	12:30	X	X	
Smith Residence-W-191207	SMITH RESIDENCE	Water	07/12/2019	12:45	X	X	
58-B-3-W-191207	58-B-3	Water	07/12/2019	13:00	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-34-W-191507	MW-34	Water	07/15/2019	10:05	X	X	MS/MSD
MW-33-W-191507	MW-33	Water	07/15/2019	10:20	X	X	
MW-32-W-191507	MW-32	Water	07/15/2019	10:35	X	X	
MW-29-W-191507	MW-29	Water	07/15/2019	11:10	X	X	
MW-28-W-191507	MW-28	Water	07/15/2019	11:20	X	X	
58-B-2-MW-W-191507	58-B-2	Water	07/15/2019	11:50	X	X	
58-B-1-MW-W-191507	58-B-1	Water	07/15/2019	12:05	X	X	
MW-9-W-191507	MW-9	Water	07/15/2019	12:25	X	X	
MW-8-W-191507	MW-8	Water	07/15/2019	12:45	X	X	
DHU-FWS-W-191507	DHU-FWS	Water	07/15/2019	12:55	X	X	
MW-27-W-191507	MW-27	Water	07/15/2019	13:10	X	X	
MW-20-W-191507	MW-20	Water	07/15/2019	13:25	X	X	
MW-26-W-191507	MW-26	Water	07/15/2019	13:40	X	X	
MW-24-W-191507	MW-24	Water	07/15/2019	13:50	X	X	
MW-18-W-191507	MW-18	Water	07/15/2019	14:05	X	X	
MW-19-W-191507	MW-19	Water	07/15/2019	14:15	X	X	
MW-12-W-191507	MW-12	Water	07/15/2019	14:30	X	X	
MW-31-W-191507	MW-31	Water	07/15/2019	14:45	X	X	
MW-10-W-191507	MW-10	Water	07/15/2019	15:05	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-10-WD-191507	MW-10	Water	07/15/2019	15:05	X	X	Field duplicate of MW-10; MS/MSD
MW-6-W-191507	MW-6	Water	07/15/2019	15:25	X	X	
MW-11-W-191507	MW-11	Water	07/15/2019	15:35	X	X	
MW-25-W-191507	MW-25	Water	07/15/2019	15:50	X	X	DUP
MW-5-W-191607	MW-5	Water	07/16/2019	10:10	X	X	
MW-3-W-191607	MW-3	Water	07/16/2019	10:25	X	X	
TRACT-4-W-191607	Trac4	Water	07/16/2019	10:40	X	X	
MW-14-W-191607	MW-14	Water	07/16/2019	10:55	X	X	
MW-4-W-191607	MW-4	Water	07/16/2019	11:15	X	X	
MW-13-W-191607	MW-13	Water	07/16/2019	11:35	X	X	
MW-30-W-191607	MW-30	Water	07/16/2019	11:50	X	X	
Livermore-W-191607	Livermore	Water	07/16/2019	12:05	X	X	
MW-23-W-191607	MW-23	Water	07/16/2019	12:40	X	X	DUP
MW-22-W-191607	MW-22	Water	07/16/2019	12:50	X	X	
MW-17-W-191607	MW-17	Water	07/16/2019	13:05	X	X	
MW-17-WD-191607	MW-17	Water	07/16/2019	13:05	X	X	Field duplicate of MW-17
MW-21-W-191607	MW-21	Water	07/16/2019	13:30	X	X	
MW-16-W-191607	MW-16	Water	07/16/2019	13:45	X	X	
MW-15-W-191607	MW-15	Water	07/16/2019	14:10	X	X	

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
43-K-1-MW-W-191707	43-K-1	Water	07/17/2019	11:30	X	X	DUP
45-E-3-MW-W-191707	45-E-3	Water	07/17/2019	11:40	X	X	
45-F-1-MW-W-191707	45-F-1	Water	07/17/2019	12:00	X	X	
45-FF-MW-W-191707	45-FF	Water	07/17/2019	12:15	X	X	
45-E-2-MW-W-191707	45-E-2	Water	07/17/2019	12:30	X	X	
45-E-1-MW-W-191707	45-E-1	Water	07/17/2019	12:50	X	X	
44-I-1-MW-W-191707	44-I-1	Water	07/17/2019	13:20	X	X	
44-J-1-MW-W-191707	44-J-1	Water	07/17/2019	13:35	X	X	
44-J-5-MW-W-191707	44-J-5	Water	07/17/2019	13:45	X	X	
44-J-4-MW-W-191707	44-J-4	Water	07/17/2019	14:00	X	X	
44-J-3-MW-W-191707	44-J-3	Water	07/17/2019	14:15	X	X	DUP
44-J-2-MW-W-191707	44-J-2	Water	07/17/2019	14:25	X	X	

Notes:

TDS	- Total Dissolved Solids
MS/MSD	- Matrix Spike/Matrix Spike Duplicate
DUP	- Laboratory Duplicate

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		43-K-1	44-I-1	44-J-1	44-J-2	44-J-3	44-J-4
Sample Name:		43-K-1-MW-W-191707	44-I-1-MW-W-191707	44-J-1-MW-W-191707	44-J-2-MW-W-191707	44-J-3-MW-W-191707	44-J-4-MW-W-191707
Sample Date:		07/17/2019	07/17/2019	07/17/2019	07/17/2019	07/17/2019	07/17/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	7050	3400	5140	5170	5340	4240
TDS	mg/L	11000	5510	7020	7870	8680	6850

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		44-J-5	45-E-1	45-E-2	45-E-3	45-F-1	45-FF
Sample Name:		44-J-5-MW-W-191707	45-E-1-MW-W-191707	45-E-2-MW-W-191707	45-E-3-MW-W-191707	45-F-1-MW-W-191707	45-FF-MW-W-191707
Sample Date:		07/17/2019	07/17/2019	07/17/2019	07/17/2019	07/17/2019	07/17/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	4200	3360	1830	4010	1060	6060
TDS	mg/L	6810	4820	2880	6440	1770	7320

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		58-B-1	58-B-2	58-B-3	DHU-FWS	Livermore	MW-3	MW-4
Sample Name:		58-B-1-MW-W-191507	58-B-2-MW-W-191507	58-B-3-W-191207	DHU-FWS-W-191507	Livermore-W-191607	MW-3-W-191607	MW-4-W-191607
Sample Date:		07/15/2019	07/15/2019	07/12/2019	07/15/2019	07/16/2019	07/16/2019	07/16/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	6180	3850	1470	624	1340	475	269
TDS	mg/L	9750	6310	2520	3020	4720	1320	889

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		MW-5	MW-6	MW-8	MW-9	MW-10	MW-10	MW-11	MW-12
Sample Name:		MW-5-W-191607	MW-6-W-191507	MW-8-W-191507	MW-9-W-191507	MW-10-W-191507	MW-10-WD-191507	MW-11-W-191507	MW-12-W-191507
Sample Date:		07/16/2019	07/15/2019	07/15/2019	07/15/2019	07/15/2019	07/15/2019 Duplicate	07/15/2019	07/15/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	219	395	884	2620	4860	4750	7680	11000
TDS	mg/L	1120	1470	2390	4240	8210	8650	11800	22600

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		MW-13	MW-14	MW-15	MW-16	MW-17	MW-17	MW-18	MW-19
Sample Name:		MW-13-W-191607	MW-14-W-191607	MW-15-W-191607	MW-16-W-191607	MW-17-W-191607	MW-17-WD-191607	MW-18-W-191507	MW-19-W-191507
Sample Date:		07/16/2019	07/16/2019	07/16/2019	07/16/2019	07/16/2019	07/16/2019 Duplicate	07/15/2019	07/15/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	1400	1110	1300	301	7880	8150	21000	6860
TDS	mg/L	4440	3120	1800	1060	13100	12800	33100	11000

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		MW-20	MW-21	MW-22	MW-23	MW-24	MW-25	MW-26	MW-27
Sample Name:		MW-20-W-191507	MW-21-W-191607	MW-22-W-191607	MW-23-W-191607	MW-24-W-191507	MW-25-W-191507	MW-26-W-191507	MW-27-W-191507
Sample Date:		07/15/2019	07/16/2019	07/16/2019	07/16/2019	07/15/2019	07/15/2019	07/15/2019	07/15/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	1270	6720	11300	3420	4180	23200	1360	2540
TDS	mg/L	2330	11000	18000	9780	8860	33200	2960	4440

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		MW-28	MW-29	MW-30	MW-31	MW-32	MW-33	MW-34
Sample Name:		MW-28-W-191507	MW-29-W-191507	MW-30-W-191607	MW-31-W-191507	MW-32-W-191507	MW-33-W-191507	MW-34-W-191507
Sample Date:		07/15/2019	07/15/2019	07/16/2019	07/15/2019	07/15/2019	07/15/2019	07/15/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	2180	500	1500	10900	314	153	64.2
TDS	mg/L	3490	1140	4200	16600	1090	988	621

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5	NM-MW-6
Sample Name:		NM-MW-1-W-191107	NM-MW-2-W-191107	NM-MW-3-W-191107	NM-MW-4-W-191107	NM-MW-5-W-191107	NM-MW-6-W-191217
Sample Date:		07/11/2019	07/11/2019	07/11/2019	07/11/2019	07/11/2019	07/12/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	291	697	184	40.6	149	143
TDS	mg/L	1380	1330	581	423	1290	863

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		**NM-MW-7**	**NM-MW-8**	**NM-MW-9**	**NM-MW-10**
Sample Name:		**NM-MW-7-W-191107**	**NM-MW-8-W-191107**	**NM-MW-9-W-191207**	**NM-MW-10-W-191207**
Sample Date:		**07/11/2019**	**07/11/2019**	**07/12/2019**	**07/12/2019**
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	2600	6200	264	354
TDS	mg/L	4390	9310	797	1680

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		**NM-MW-11**	**NM-MW-11**	**NM-MW-12**	**NM-MW-13**
Sample Name:		**NM-MW-11-W-191207**	**NM-MW-11-WD-191207**	**NM-MW-12-W-191207**	**NM-MW-13-W-191207**
Sample Date:		**07/12/2019**	**07/12/2019**	**07/12/2019**	**07/12/2019**
			Duplicate		
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	157	161	657	199
TDS	mg/L	1980	2010	524	1090

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Location ID:		**Ranch Windmill**	**SMITH RESIDENCE**	**Trac4**	**WILSON RANCH WW**
Sample Name:		**RRR Ranch Windmill-W-191107**	**Smith Residence-W-191207**	**TRACT-4-W-191607**	**Wilson Ranch Well-W-191207**
Sample Date:		**07/11/2019**	**07/12/2019**	**07/16/2019**	**07/12/2019**
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	1800	1300	333	1300
TDS	mg/L	3560	2660	1110	2530

Notes:

TDS - Total Dissolved Solids

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

October 29, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/26-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Split Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas October 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during October 2019. Samples were submitted to Pace Analytical National Center for Testing & Innovation (Pace), located in Mt. Juliet, Tennessee. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, and recovery data from laboratory control samples (LCS), matrix spikes (MS), and laboratory duplicates.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

GHD
13091 Pond Springs Road Suite A100 Austin, Texas 78613 USA
T 512 506 8803 W www.ghd.com

REGISTERED COMPANY FOR ISO 9001 ENGINEERING DESIGN

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation with the following exception:

i) One method blank yielded a low level detection for chloride analysis. All associated sample results were significantly greater than the method blank detection and were not affected. No further action was required.

4. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. For this study, LCS were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

5. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS or MS/matrix spike duplicate (MSD) samples. The relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

An MS analysis was performed as specified in Table 1. The MS or MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

The percent recovery value was within the control limits, demonstrating acceptable analytical accuracy.

The laboratory also performed additional MS or MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for chloride and/or total dissolved solids (TDS). The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision with the following exceptions (see Table 4):

i) One duplicate analysis was reported with an elevated RPD for TDS. All associated sample results were qualified as estimated.

The laboratory also performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Analyte Reporting

The laboratory reported detected results down to the laboratory's reporting limit (RL) for each analyte.

8. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-8-W-191510	NM-MW-8	Water	10/15/2019	11:10	X	X	
NM-MW-1-W-191510	NM-MW-1	Water	10/15/2019	11:55	X	X	
NM-MW-6-W-191510	NM-MW-6	Water	10/15/2019	12:15	X	X	
NM-MW-13-W-191510	NM-MW-13	Water	10/15/2019	12:45	X	X	
NM-MW-9-W-191510	NM-MW-9	Water	10/15/2019	13:25	X	X	MS; DUP-P
MW-9-W-191610	MW-9	Water	10/16/2019	11:40	X	X	DUP-P
MW-8-W-191610	MW-8	Water	10/16/2019	12:00	X	X	
MW-24-W-191610	MW-24	Water	10/16/2019	13:00	X	X	
MW-12-W-191610	MW-12	Water	10/16/2019	13:10	X	X	
MW-31-W-191610	MW-31	Water	10/16/2019	13:25	X	X	
MW-18-W-191610	MW-18	Water	10/16/2019	14:00	X	X	
MW-25-W-191710	MW-25	Water	10/17/2019	11:05	X	X	
MW-22-W-191710	MW-22	Water	10/17/2019	14:00	X	X	

Notes:

TDS - Total Dissolved Solids
MS - Matrix Spike
DUP-P - Laboratory Duplicate (partial parameters)

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-8	MW-9	MW-12	MW-18	MW-22	MW-24	MW-25
Sample Name:		MW-8-W-191610	MW-9-W-191610	MW-12-W-191610	MW-18-W-191610	MW-22-W-191710	MW-24-W-191610	MW-25-W-191710
Sample Date:		10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/17/2019	10/16/2019	10/17/2019
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	874	2530	13100	22300	12500	2570	23200
TDS	mg/L	2080 J	6240 J	31000 J	48900 J	33000	12400 J	64100

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		**MW-31**	**NM-MW-1**	**NM-MW-6**	**NM-MW-8**	**NM-MW-9**	**NM-MW-13**
Sample Name:		**MW-31-W-191610**	**NM-MW-1-W-191510**	**NM-MW-6-W-191510**	**NM-MW-8-W-191510**	**NM-MW-9-W-191510**	**NM-MW-13-W-191510**
Sample Date:		**10/16/2019**	**10/15/2019**	**10/15/2019**	**10/15/2019**	**10/15/2019**	**10/15/2019**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	10400	279	142	5890	258	198
TDS	mg/L	29200 J	1390 J	773 J	10600 J	844 J	1060

Notes:

TDS - Total Dissolved Solids
J - Estimated concentration

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

			Holding Time
			Collection to Analysis
Parameter	**Method**	**Matrix**	**(Days)**
Chloride	SW-846 9056A	Water	28
TDS	SM 2540 C-2011	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

Qualified Sample Data Due to Outlying Laboratory Duplicate Results
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Sample ID	Analyte	RPD (percent)	RPD Control Limit (percent)	Associated Sample IDs	Qualified Result	Units
General Chemistry	MW-9-W-191610	TDS	13.2	5	MW-12-W-191610	31000 J	mg/L
					MW-18-W-191610	48900 J	mg/L
					MW-24-W-191610	12400 J	mg/L
					MW-31-W-191610	29200 J	mg/L
					MW-8-W-191610	2080 J	mg/L
					MW-9-W-191610	6240 J	mg/L
					NM-MW-1-W-191510	1390 J	mg/L
					NM-MW-6-W-191510	773 J	mg/L
					NM-MW-8-W-191510	10600 J	mg/L
					NM-MW-9-W-191510	844 J	mg/L

Notes:

RPD - Relative Percent Difference
TDS - Total Dissolved Solids
J - Estimated concentration

Memorandum

October 30, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/27-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas October 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during October 2019. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control sample/laboratory control duplicate samples (LCS/LCSD), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/LCSD are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

i) Two MS/MSDs were reported outlying recoveries due to possible matrix interferences and were not assessed. No further action was required.

The laboratory also performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for TDS. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the following exception (see Table 4):

i) NM-MW-11-W-191510 and NM-MW-11-WD-191510 did show some variability in chloride results and were qualified as estimated

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-7-W-191510	NM-MW-7	Water	10/15/2019	10:35	X	X	
NM-MW-4-W-191510	NM-MW-4	Water	10/15/2019	10:57	X	X	MS/MSD
RRR Ranch Windmill-W-191510	Ranch Windmill	Water	10/15/2019	10:59	X	X	DUP
NM-MW-8-W-191510	NM-MW-8	Water	10/15/2019	11:10	X	X	
NM-MW-3-W-191510	NM-MW-3	Water	10/15/2019	11:27	X	X	MS/MSD
NM-MW-2-W-191510	NM-MW-2	Water	10/15/2019	11:35	X	X	
NM-MW-1-W-191510	NM-MW-1	Water	10/15/2019	11:55	X	X	DUP
NM-MW-5-W-191510	NM-MW-5	Water	10/15/2019	12:01	X	X	
NM-MW-6-W-191510	NM-MW-6	Water	10/15/2019	12:15	X	X	MS/MSD
NM-MW-11-W-191510	NM-MW-11	Water	10/15/2019	12:25	X	X	
NM-MW-11-WD-191510	NM-MW-11	Water	10/15/2019	12:25	X	X	Field duplicate of NM-MW-11
NM-MW-13-W-191510	NM-MW-13	Water	10/15/2019	12:45	X	X	
NM-MW-10-W-191510	NM-MW-10	Water	10/15/2019	13:11	X	X	
NM-MW-9-W-191510	NM-MW-9	Water	10/15/2019	13:25	X	X	
NM-MW-12-W-191510	NM-MW-12	Water	10/15/2019	13:40	X	X	DUP
Wilson Ranch Well-W-191510	WILSON RANCH WW	Water	10/15/2019	13:45	X	X	
Smith Residence-W-191510	SMITH RESIDENCE	Water	10/15/2019	14:10	X	X	
MW-33-W-191510	MW-33	Water	10/15/2019	14:15	X	X	
MW-34-W-191510	MW-34	Water	10/15/2019	14:25	X	X	MS/MSD
MW-32-W-191510	MW-32	Water	10/15/2019	14:49	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-28-W-191610	MW-28	Water	10/16/2019	11:00	X	X	
MW-29-W-191610	MW-29	Water	10/16/2019	11:10	X	X	
MW-9-W-191610	MW-9	Water	10/16/2019	11:40	X	X	
MW-8-W-191610	MW-8	Water	10/16/2019	12:00	X	X	
DHU-FWS-W-191610	DHU-FWS	Water	10/16/2019	12:10	X	X	
MW-27-W-191610	MW-27	Water	10/16/2019	12:20	X	X	
MW-20-W-191610	MW-20	Water	10/16/2019	12:30	X	X	
MW-26-W-191610	MW-26	Water	10/16/2019	12:45	X	X	DUP
MW-24-W-191610	MW-24	Water	10/16/2019	13:00	X	X	
MW-12-W-191610	MW-12	Water	10/16/2019	13:15	X	X	
MW-31-W-191610	MW-31	Water	10/16/2019	13:25	X	X	
MW-10-W-191610	MW-10	Water	10/16/2019	13:45	X	X	
MW-10-WD-191610	MW-10	Water	10/16/2019	13:45	X	X	Field duplicate of MW-10
MW-18-W-191610	MW-18	Water	10/16/2019	14:00	X	X	
MW-19-W-191610	MW-19	Water	10/16/2019	14:20	X	X	
MW-11-W-191710	MW-11	Water	10/17/2019	10:30	X	X	
MW-6-W-191710	MW-6	Water	10/17/2019	10:45	X	X	DUP
MW-5-W-191710	MW-5	Water	10/17/2019	10:55	X	X	
MW-25-W-191710	MW-25	Water	10/17/2019	11:05	X	X	
MW-3-W-191710	MW-3	Water	10/17/2019	11:15	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
TRAC-4-W-191710	Trac4	Water	10/17/2019	11:30	X	X	
Livermoore-W-191710	Livermore	Water	10/17/2019	11:50	X	X	
MW-30-W-191710	MW-30	Water	10/17/2019	12:10	X	X	
MW-13-W-191710	MW-13	Water	10/17/2019	12:20	X	X	
MW-4-W-191710	MW-4	Water	10/17/2019	12:35	X	X	
MW-14-W-191710	MW-14	Water	10/17/2019	12:45	X	X	
MW-15-W-191710	MW-15	Water	10/17/2019	13:00	X	X	
MW-21-W-191710	MW-21	Water	10/17/2019	13:15	X	X	DUP
MW-16-W-191710	MW-16	Water	10/17/2019	13:25	X	X	
MW-17-W-191710	MW-17	Water	10/17/2019	13:35	X	X	
MW-17-WD-191710	MW-17	Water	10/17/2019	13:35	X	X	Field duplicate of MW-17
MW-23-W-191710	MW-23	Water	10/17/2019	13:50	X	X	
MW-22-W-191710	MW-22	Water	10/17/2019	14:00	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		DHU-FWS	Livermore	MW-3	MW-4	MW-5	MW-6	MW-8	MW-9
Sample Name:		DHU-FWS-W-191610	Livermoore-W-191710	MW-3-W-191710	MW-4-W-191710	MW-5-W-191710	MW-6-W-191710	MW-8-W-191610	MW-9-W-191610
Sample Date:		10/16/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/16/2019	10/16/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	603	2490	502	325	257	383	919	2520
TDS	mg/L	2950	4160	1350	902	1000	1490	2400	4610

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-10	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16
Sample Name:		MW-10-W-191610	MW-10-WD-191610	MW-11-W-191710	MW-12-W-191610	MW-13-W-191710	MW-14-W-191710	MW-15-W-191710	MW-16-W-191710
Sample Date:		10/16/2019	10/16/2019	10/17/2019	10/16/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019
			Duplicate						
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	4980	4940	7590	12600	1960	1670	1010	393
TDS	mg/L	8520	8630	12400	23400	3720	2940	1850	1110

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-17	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23
Sample Name:		MW-17-W-191710	MW-17-WD-191710	MW-18-W-191610	MW-19-W-191610	MW-20-W-191610	MW-21-W-191710	MW-22-W-191710	MW-23-W-191710
Sample Date:		10/17/2019	10/17/2019	10/16/2019	10/16/2019	10/16/2019	10/17/2019	10/17/2019	10/17/2019
			Duplicate						
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	9620	9430	19900	7160	1260	7010	12400	3840
TDS	mg/L	15300	16000	37300	12800	2500	11000	20600	10200

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30	MW-31
Sample Name:		MW-24-W-191610	MW-25-W-191710	MW-26-W-191610	MW-27-W-191610	MW-28-W-191610	MW-29-W-191610	MW-30-W-191710	MW-31-W-191610
Sample Date:		10/16/2019	10/17/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/17/2019	10/16/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	4150	20900	1340	2490	2410	501	2340	10500
TDS	mg/L	8980	24800	3250	4160	3780	1200	3880	17900

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-32	MW-33	MW-34	NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5
Sample Name:		MW-32-W-191510	MW-33-W-191510	MW-34-W-191510	NM-MW-1-W-191510	NM-MW-2-W-191510	NM-MW-3-W-191510	NM-MW-4-W-191510	NM-MW-5-W-191510
Sample Date:		10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Parameters	**Unit**								
General Chemistry									
Chloride	mg/L	271	156	66.5	281	666	183	46.2	170
TDS	mg/L	1110	1040	604	1450	1240	596	430	1320

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		NM-MW-6	NM-MW-7	NM-MW-8	NM-MW-9	NM-MW-10	NM-MW-11	NM-MW-11
Sample Name:		NM-MW-6-W-191510	NM-MW-7-W-191510	NM-MW-8-W-191510	NM-MW-9-W-191510	NM-MW-10-W-191510	NM-MW-11-W-191510	NM-MW-11-WD-191510
Sample Date:		10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019 Duplicate
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	139	2370	7120	243	340	134 J	77.3 J
TDS	mg/L	827	4240	10700	812	1670	1530	1820

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		NM-MW-12	NM-MW-13	Ranch Windmill	SMITH RESIDENCE	Trac4	WILSON RANCH WW
Sample Name:		NM-MW-12-W-191510	NM-MW-13-W-191510	RRR Ranch Windmill-W-191510	Smith Residence-W-191510	TRAC-4-W-191710	Wilson Ranch Well-W-191510
Sample Date:		10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/17/2019	10/15/2019
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	512	179	1800	1180	323	928
TDS	mg/L	1380	1100	3500	2140	1070	1880

Notes:

TDS - Total Dissolved Solids

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

Qualified Sample Data Due to Variability in Field Duplicate Results
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Analyte	RPD	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
General Chemistry	Chloride	53.7	NM-MW-11-W-191510	134 J	NM-MW-11-WD-191510	77.3 J	mg/L

Notes:

RPD - Relative Percent Difference
J - Estimated concentration

Memorandum

October 30, 2019

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/28-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling - Split Sample Comparison Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas October 2019**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during October 2019. Samples were submitted to Xenco Laboratories (Xenco), located in Midland, Texas. A split sample set was submitted to Pace Analytical National Center for Testing & Innovation (Pace), located in Mt. Juliet, Tennessee. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control sample (LCS), matrix spikes (MS), and laboratory duplicates.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS or LCS/laboratory control sample duplicate (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS or LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision (where applicable).

5. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS or MS/matrix spike duplicate (MSD) samples. The RPD between the MS and MSD is used to assess analytical precision.

MS or MS/MSD analyses were performed as specified in Table 1. The MS and MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

i) Two MS/MSDs were reported outlying recoveries due to possible matrix interferences and were not assessed. No further action was required.

The laboratory also performed additional MS or MS/MSD on non-site samples. These cannot be used to assess accuracy and/or precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for TDS. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision with the following exception (see Table 4):

i) One duplicate analysis was reported with an elevated RPD for TDS analysis. All associated sample results were qualified as estimated

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Split Sample Analyses

For this study, split samples were collected and submitted to two separate laboratories; Xenco and Pace. The RPDs associated with these duplicate samples should be less than fifty percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value. The duplicate result comparisons are presented in Table 5.

All split sample duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the following exception:

i) MW-25-W-191710 TDS results did show some variability. The RPD exceedance was noted in Table 5, but no additional qualifications were added to the sample results.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters			
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**	**SDG**
NM-MW-8-W-191510	NM-MW-8	Water	10/15/2019	11:10	X	X		640401
NM-MW-8-W-191510	NM-MW-8	Water	10/15/2019	11:10	X	X		L1151971
NM-MW-1-W-191510	NM-MW-1	Water	10/15/2019	11:55	X	X	DUP-P	640401
NM-MW-1-W-191510	NM-MW-1	Water	10/15/2019	11:55	X	X		L1151971
NM-MW-6-W-191510	NM-MW-6	Water	10/15/2019	12:15	X	X	MS or MS/MSD	640401
NM-MW-6-W-191510	NM-MW-6	Water	10/15/2019	12:15	X	X		L1151971
NM-MW-13-W-191510	NM-MW-13	Water	10/15/2019	12:45	X	X		640403
NM-MW-13-W-191510	NM-MW-13	Water	10/15/2019	12:45	X	X		L1151976
NM-MW-9-W-191510	NM-MW-9	Water	10/15/2019	13:25	X	X		640401
NM-MW-9-W-191510	NM-MW-9	Water	10/15/2019	13:25	X	X	MS or MS/MSD; DUP-P	L1151971
MW-9-W-191610	MW-9	Water	10/16/2019	11:40	X	X		640401
MW-9-W-191610	MW-9	Water	10/16/2019	11:40	X	X	DUP-P	L1151971
MW-8-W-191610	MW-8	Water	10/16/2019	12:00	X	X		640401
MW-8-W-191610	MW-8	Water	10/16/2019	12:00	X	X		L1151971
MW-24-W-191610	MW-24	Water	10/16/2019	13:00	X	X		640401
MW-24-W-191610	MW-24	Water	10/16/2019	13:00	X	X		L1151971
MW-12-W-191610	MW-12	Water	10/16/2019	13:10	X	X		L1151971
MW-12-W-191610	MW-12	Water	10/16/2019	13:15	X	X		640401
MW-31-W-191610	MW-31	Water	10/16/2019	13:25	X	X		640401
MW-31-W-191610	MW-31	Water	10/16/2019	13:25	X	X		L1151971
MW-18-W-191610	MW-18	Water	10/16/2019	14:00	X	X		640401

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

					Analysis/Parameters			
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**	**SDG**
MW-18-W-191610	MW-18	Water	10/16/2019	14:00	X	X		L1151971
MW-25-W-191710	MW-25	Water	10/17/2019	11:05	X	X		640401
MW-25-W-191710	MW-25	Water	10/17/2019	11:05	X	X		L1151971
MW-22-W-191710	MW-22	Water	10/17/2019	14:00	X	X		640401
MW-22-W-191710	MW-22	Water	10/17/2019	14:00	X	X		L1151971

Notes:

TDS - Total Dissolved Solids
MS or MS/MSD - Matrix Spike or Matrix Spike/Matrix Spike Duplicate
DUP-P - Laboratory Duplicate (partial parameters)

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-12	MW-12	MW-18	MW-18	MW-22	MW-22
Sample Name:		MW-12-W-191610	MW-12-W-191610	MW-18-W-191610	MW-18-W-191610	MW-22-W-191710	MW-22-W-191710
Sample Date:		10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/17/2019	10/17/2019
			Pace Split Sample		Pace Split Sample		Pace Split Sample
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	12600	13100	19900	22300	12400	12500
TDS	mg/L	23400	31000 J	37300	48900 J	20600	33000

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-24	MW-24	MW-25	MW-25	MW-31
Sample Name:		MW-24-W-191610	MW-24-W-191610	MW-25-W-191710	MW-25-W-191710	MW-31-W-191610
Sample Date:		10/16/2019	10/16/2019	10/17/2019	10/17/2019	10/16/2019
			Pace Split Sample		Pace Split Sample	
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	4150	2570	20900	23200	10500
TDS	mg/L	8980	12400 J	24800	64100	17900

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		MW-31	MW-8	MW-8	MW-9	MW-9
Sample Name:		MW-31-W-191610	MW-8-W-191610	MW-8-W-191610	MW-9-W-191610	MW-9-W-191610
Sample Date:		10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019
		Pace Split Sample		Pace Split Sample		Pace Split Sample
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	10400	919	874	2520	2530
TDS	mg/L	29200 J	2400	2080 J	4610	6240 J

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		NM-MW-1	NM-MW-1	NM-MW-13	NM-MW-13	NM-MW-6
Sample Name:		NM-MW-1-W-191510	NM-MW-1-W-191510	NM-MW-13-W-191510	NM-MW-13-W-191510	NM-MW-6-W-191510
Sample Date:		10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
			Pace Split Sample		Pace Split Sample	
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	281	279	179	198	139
TDS	mg/L	1450	1390 J	1100	1060	827

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Location ID:		NM-MW-6	NM-MW-8	NM-MW-8	NM-MW-9	NM-MW-9
Sample Name:		NM-MW-6-W-191510	NM-MW-8-W-191510	NM-MW-8-W-191510	NM-MW-9-W-191510	NM-MW-9-W-191510
Sample Date:		10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
		Pace Split Sample		Pace Split Sample		Pace Split Sample
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	142	7120	5890	243	258
TDS	mg/L	773 J	10700	10600 J	812	844 J

Notes:

TDS - Total Dissolved Solids
J - Estimated concentration

Released to Imaging: 11/21/2023 10:32:34 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1 SW-846 9056A	Water	28
TDS	SM 2540C SM 2540 C-2011	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

Qualified Sample Data Due to Outlying Laboratory Duplicate Results
Groundwater Monitoring Well Split Sampling - Pace
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Sample ID	Analyte	RPD (percent)	RPD Control Limit (percent)	Associated Sample IDs	Qualified Result	Units
General Chemistry	MW-9-W-191610	TDS	13.2	5	MW-12-W-191610	31000 J	mg/L
					MW-18-W-191610	48900 J	mg/L
					MW-24-W-191610	12400 J	mg/L
					MW-31-W-191610	29200 J	mg/L
					MW-8-W-191610	2080 J	mg/L
					MW-9-W-191610	6240 J	mg/L
					NM-MW-1-W-191510	1390 J	mg/L
					NM-MW-6-W-191510	773 J	mg/L
					NM-MW-8-W-191510	10600 J	mg/L
					NM-MW-9-W-191510	844 J	mg/L

Notes:

RPD - Relative Percent Difference
TDS - Total Dissolved Solids
J - Estimated concentration

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 5

Split Sample Duplicate Results
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Analyte	RPD	Diff (Xenco - Pace)	Xenco Sample ID	Qualified Result	Pace Field Duplicate Sample ID	Qualified Result	Units
General Chemistry	Chloride	3.89	-500	MW-12-W-191610	12600	MW-12-W-191610	13100	mg/L
	TDS	27.9	-7600		23400		31000 J	mg/L
General Chemistry	Chloride	11.3	-2400	MW-18-W-191610	19900	MW-18-W-191610	22300	mg/L
	TDS	26.9	-11600		37300		48900 J	mg/L
General Chemistry	Chloride	0.803	-100	MW-22-W-191710	12400	MW-22-W-191710	12500	mg/L
	TDS	46.2	-12400		20600		33000	mg/L
General Chemistry	Chloride	47.0	1580	MW-24-W-191610	4150	MW-24-W-191610	2570	mg/L
	TDS	31.9	-3420		8980		12400 J	mg/L
General Chemistry	Chloride	10.4	-2300	MW-25-W-191710	20900	MW-25-W-191710	23200	mg/L
	TDS	**88.4**	-39300		24800		64100	mg/L
General Chemistry	Chloride	0.956	100	MW-31-W-191610	10500	MW-31-W-191610	10400	mg/L
	TDS	47.9	-11300		17900		29200 J	mg/L
General Chemistry	Chloride	5.01	45	MW-8-W-191610	919	MW-8-W-191610	874	mg/L
	TDS	14.2	320		2400		2080 J	mg/L
General Chemistry	Chloride	0.396	-10	MW-9-W-191610	2520	MW-9-W-191610	2530	mg/L
	TDS	30.0	-1630		4610		6240 J	mg/L

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 5

Split Sample Duplicate Results
Groundwater Monitoring Well Sampling - Split Sample Comparison
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2019

Parameter	Analyte	RPD	Diff (Xenco - Pace)	Xenco Sample ID	Qualified Result	Pace Field Duplicate Sample ID	Qualified Result	Units
General Chemistry	Chloride	0.714	2	NM-MW-1-W-191510	281	NM-MW-1-W-191510	279	mg/L
	TDS	4.22	60		1450		1390 J	mg/L
General Chemistry	Chloride	10.0	-19	NM-MW-13-W-191510	179	NM-MW-13-W-191510	198	mg/L
	TDS	3.70	40		1100		1060	mg/L
General Chemistry	Chloride	2.13	-3	NM-MW-6-W-191510	139	NM-MW-6-W-191510	142	mg/L
	TDS	6.75	54		827		773 J	mg/L
General Chemistry	Chloride	18.9	1230	NM-MW-8-W-191510	7120	NM-MW-8-W-191510	5890	mg/L
	TDS	0.938	100		10700		10600 J	mg/L
General Chemistry	Chloride	5.98	-15	NM-MW-9-W-191510	243	NM-MW-9-W-191510	258	mg/L
	TDS	3.86	-32		812		844 J	mg/L

Notes:

RPD - Relative Percent Difference
Diff - Difference
TDS - Total Dissolved Solids
J - Estimated concentration
Bold - Exceeded 50% RPD

Released to Imaging: 11/21/2023 10:32:34 AM



about GHD

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

Nicholas G. Casten
Nick.Casten@GHD.com
225.292.9007

Elizabeth Whiddon
Elizabeth.Whiddon@GHD.com
225.292.9007

www.ghd.com

Received by OCD: 3/23/2023 11:36:17 AM

Accepted - 05/18/2023

NV

Adriane Gifford
Project Manager

Upstream EM
Environmental Management Company
1500 Louisiana Street
Room 38108
Houston, Texas 77002
Tel: 832-854-5620
AGifford@Chevron.com

March 5, 2019

Mr. Bradford Billings
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: 2018 Annual Groundwater Monitoring Report
Chevron Dollarhide Groundwater Remediation Site
Andrews County, Texas
RRC OCP No. 08-1048
OCD RP No. 1R-3944

Dear Mr. Billings:

Chevron Environmental Management Company (CEMC) submits herein to the New Mexico Oil Conservation Division (OCD) the *2018 Annual Groundwater Monitoring Report* for the Chevron Dollarhide Oil Field Unit located in Andrews County, Texas. This report was prepared by GHD Services Inc. (GHD) to document groundwater monitoring activities performed on behalf of CEMC during the 2018 calendar year at the above-referenced Site.

CEMC proposed an additional groundwater investigation to be conducted at the Site in 2019 to establish long-term plume management monitoring points in Texas and New Mexico, and further delineate the downgradient groundwater plume boundary in both states. The scope of work and objectives for the additional groundwater investigation were included in the *2019 Work Plan for Additional Groundwater Investigation* that was submitted to the RRC and OCD on February 1, 2019. The RRC concurred with the proposed activities and responded with approval on February 7, 2019. CEMC will continue conducting quarterly monitoring only for the monitor wells recently installed in 2015, 2016, 2017, and 2019. A report detailing the first two quarters of 2019 groundwater monitoring data will be submitted by August 1, 2019.

CEMC anticipates scheduling a project update meeting with the OCD and the RRC in the third or fourth quarter 2019. If you have any questions regarding this submittal, please contact me at (832) 854-5620 or Nick G. Casten of GHD at (225) 296-6513.

Respectfully,

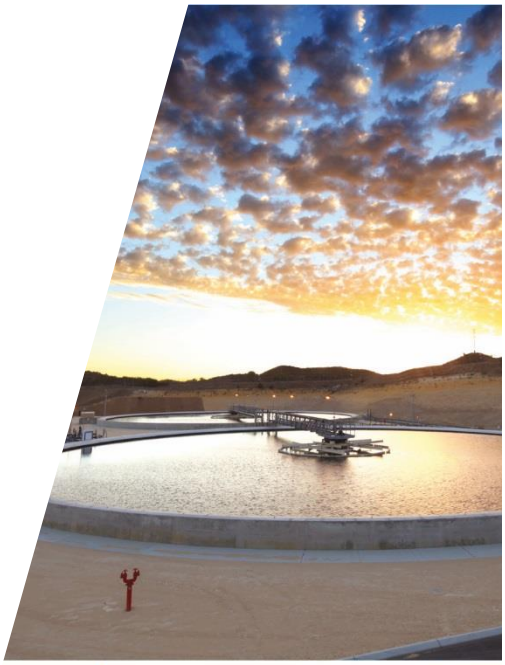
Chevron Environmental Management Company
on behalf of
Chevron U.S.A. Inc.

Adriane Gifford
Project Manager

Enclosure

cc: Jessica Cofrancesco, RRC Site Remediation Section
Nick G. Casten, GHD

Released to Imaging: 11/21/2023 10:32:34 AM



2018 Annual Groundwater Monitoring Report

Dollarhide Oil Field Unit
Andrews County, Texas
RRC OCP No. 08-1048
OCD RP No. 1R-3944









Chevron Environmental Management Company

Table of Contents

1. Introduction 1
2. Background 1
3. Regulatory Framework 2
4. Groundwater Recovery 3
5. Groundwater Monitoring 3
   5.1 Potentiometric Conditions 3
   5.2 Groundwater Sampling 3
   5.3 Analytical Results 4
   5.4 Quality Assurance/Quality Control 4
6. Conclusions and Path Forward 4

Figure Index

Figure 1 Site Vicinity Map
Figure 2 Site Details Map
Figure 3 January 2018 Groundwater Potentiometric Elevations and Contours
Figure 4 April 2018 Groundwater Potentiometric Elevations and Contours
Figure 5 July 2018 Groundwater Potentiometric Elevations and Contours
Figure 6 October 2018 Groundwater Potentiometric Elevations and Contours
Figure 7 January 2018 Groundwater Chloride Concentrations and Isopleths
Figure 8 April 2018 Groundwater Chloride Concentrations and Isopleths
Figure 9 July 2018 Groundwater Chloride Concentrations and Isopleths
Figure 10 October 2018 Groundwater Chloride Concentrations and Isopleths
Figure 11 January 2018 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 12 April 2018 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 13 July 2018 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 14 October 2018 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths

Table Index

Table 1 Groundwater Well Designations
Table 2 January 2018 Groundwater Elevation Measurements
Table 3 April 2018 Groundwater Elevation Measurements
Table 4 July 2018 Groundwater Elevation Measurements
Table 5 October 2018 Groundwater Elevation Measurements
Table 6 2018 Groundwater Analytical Results Summary

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix Index

Appendix A	Historical Groundwater Elevations
Appendix B	Groundwater Sample Analytical Laboratory Reports
Appendix C	Historical Groundwater Analytical Data
Appendix D	Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

1. Introduction

GHD Services Inc. (GHD), on behalf of Chevron Environmental Management Company (CEMC), submits herein to the Railroad Commission of Texas (RRC) the *2018 Annual Groundwater Monitoring Report* for the Dollarhide Oil Field Unit located in Andrews County, Texas (Site). The latitude/longitude coordinates for the Site are 32º 08' 45.60" N and 103º 03' 20.12" W, and a vicinity map showing the Site location is included as Figure 1. This report presents a summary and evaluation of the annual groundwater monitoring data collected in January, April, July, and October 2018.

2. Background

It is believed that historical operations at the Site have contributed to elevated chloride concentrations in groundwater in the Ogallala Aquifer. The Site was discovered as an oil and gas production field in 1945 and, over the years, was owned and operated and/or leased by various companies that disposed of excess produced water and drilling fluids into pits. The use of pits for water disposal ceased in 1967, and the Site operators began using an injection system for disposal. In 1971, the first evidence of elevated chloride concentrations in groundwater was identified in Tract 26, and then in 1974 in Tract 45. Groundwater assessment was initiated in 1974, and groundwater recovery was initiated in 1994 by Union Oil Company of California (Unocal).

Representatives of Unocal and the RRC participated in a meeting on June 2, 1994, to discuss the installation of 24 recovery wells located in Texas along the Texas and New Mexico State Line to remove chloride-impacted groundwater from the Ogallala aquifer. Unocal received RRC approval of the recovery system in written correspondence on July 7, 1994. Since 1994, two additional recovery wells were installed, totaling 26 recovery wells that recovered groundwater from the Site. The recovered groundwater was pumped into two on-Site injection wells for oil reservoir pressure maintenance. Chevron Corporation purchased Unocal in August 2005. Since that time, Chevron U.S.A., Inc. (Chevron) continued to operate the groundwater recovery system until the system shutdown in November 2017, with concurrence from the RRC and New Mexico Oil Conservation Division (OCD).

Former Pits

Prior to the 1970s, it was an accepted practice in oil field operations to store produced water in pits adjacent to well locations. After livestock water wells in the vicinity of the Site began exhibiting elevated chloride concentrations, soil borings were installed in all former pit locations to assess possible chlorides in soil leaching to groundwater. Historical aerial photographs were reviewed to assess potential source areas. A 1955 aerial photograph identified the presence of approximately 84 former produced water (brine) pits adjacent to Site well locations. A large-scale evaporation pit located to the northwest of the existing gas plant that had been utilized to store mixed brine, was identified as a potential source area. Soil samples were collected from various depths within the former pits and were submitted for laboratory analysis of chlorides. Former pit locations with soil chloride concentrations less than 700 parts per million (ppm) were determined not to be potential

source areas and were left in place. The former pit locations with soil chloride concentrations greater than 700 ppm were determined to be potential source areas, and Unocal capped the pits with a geosynthetic clay liner to prevent any further leaching of chlorides.

Light Non-Aqueous Phase Liquid

During a groundwater sampling event in January 2000, dissolved hydrocarbon constituents and light non-aqueous phase liquid (LNAPL) were detected in recovery well 44-J-WW during a routine groundwater sampling event. The LNAPL exhibited elevated concentrations of hydrocarbons in the C_6-C_{12} range, indicative of natural gas liquids. A north-south trending underground pipeline that contains hydrocarbon products, operated by another company (not Chevron), is located within 100 feet of monitor well 44-J-WW. Soil investigations were conducted in 2000 (Unocal) and 2011 (CEMC) to determine the source area of the release; however, no hydrocarbon impacts were detected in soil. On November 5, 2010, LNAPL was discovered in two additional recovery wells, 44-I-WW and 44-II-WW, during routine operation and maintenance. Due to the presence of LNAPL, these three wells had remained inactive through November 2017, when the groundwater recovery system was shut down to prevent the introduction of LNAPL into the groundwater recovery system. The LNAPL identified in these three wells (44-J-WW, 44-I-WW, and 44-II-WW) is not located near any Chevron assets that contain hydrocarbons, and the LNAPL is believed to be associated with other third-party pipelines in the vicinity. LNAPL investigation efforts have been summarized in previous reports that have been submitted to the RRC.

3. Regulatory Framework

CEMC has been working under the guidance of the RRC to address the groundwater chloride impacts as a result of historic operations at the Site. The RRC has regulatory jurisdiction over oil and gas production operations in the State of Texas. Under the RRC, the Site is regulated under Title 16 of the Texas Administrative Code (TAC) Chapter 3 (relating to the Oil and Gas Division) and §3.8(b) (Statewide Rule 8 Water Protection).

On October 13, 2015, representatives of the OCD and CEMC participated in a meeting at the OCD office in Santa Fe, New Mexico, to discuss the installation of groundwater monitor wells on CEMC-owned property in New Mexico to delineate and to further assess the impacts to the Site's groundwater with respect to chlorides and total dissolved solids (TDS). Subsequent to the meeting, CEMC submitted a Release Notification and Corrective Action (C-141) Form in a written correspondence on October 28, 2015, per OCD's request, in order to establish a file for the Site. Following the 2015 meeting with the OCD, CEMC completed groundwater investigations in 2015, 2016, and 2017 that included installation of monitor wells in Texas and New Mexico to further delineate the plume boundary.

On May 16, 2017, representatives from CEMC and GHD met with the RRC and the OCD at their respective offices. The meeting was held via teleconference to provide a project status update to both regulatory agencies and to ensure that the regulatory agencies involved in the project are in alignment with the path forward for the Site. During the joint regulatory meeting, the current and future use of the recovery system was discussed. CEMC informed the RRC and OCD of its intentions to temporarily shut down the groundwater recovery system in the fourth quarter 2017, for

Released to Imaging: 11/21/2023 10:32:34 AM

at least one calendar year, to evaluate non-pumping aquifer and plume conditions. The RRC and OCD agreed with this approach and the groundwater recovery system was shut down in November 2017.

4. Groundwater Recovery

In the fourth quarter 2018, representatives from CEMC and GHD met with the RRC (November 28, 2018) and the OCD (December 13, 2018) at their respective offices. The purpose of these meetings was to provide a project status update to both regulatory agencies and discuss the path forward for the Site. During both 2018 regulatory meetings, CEMC informed the RRC and the OCD of its intentions to permanently shut down the groundwater recovery system. The RRC and OCD both agreed with this approach, and the groundwater recovery system will remain permanently shut down.

5. Groundwater Monitoring

Currently, groundwater monitoring at the Site is being performed on a quarterly basis, with events conducted in January, April, July, and October. The groundwater monitoring system consists of 58 monitor wells and 8 non-remedial wells screened in the Ogallala Aquifer approximately 120 feet below ground surface (bgs). Groundwater well designations are shown on Figure 2 and listed in Table 1. During the January and July semiannual events, all viable wells in the groundwater monitoring system were sampled. During the voluntary April and October events, only the wells installed during the 2015, 2016, and 2017 groundwater investigations were sampled to develop concentration trends over time.

5.1 Potentiometric Conditions

Prior to sampling during each quarterly event, depth-to-groundwater measurements were collected at each well with an oil/water interface probe, with an accuracy of 0.01 foot, to determine the groundwater elevation in each well. Groundwater potentiometric elevations and contours for the January through October 2018 events are shown on Figures 3 through 6, respectively and indicate that the groundwater flow direction is generally to the southwest, consistent with previous events. A summary of the depth-to-groundwater measurements and the corresponding groundwater elevations is included in Tables 2 through 5. Historical groundwater elevations are included in Appendix A.

5.2 Groundwater Sampling

All groundwater samples were collected via no-purge grab sampling techniques. The groundwater samples were collected directly from the screened interval of each well using a HydraSleeve. The HydraSleeve is deployed during the gauging event to allow the well to return to equilibrium prior to sampling. Groundwater samples were collected in laboratory-supplied containers, preserved on ice, and transported to Xenco Laboratory located in Odessa, Texas, following proper chain-of-custody procedures. The groundwater samples were submitted for analysis of chloride by United States

Environmental Protection Agency (EPA) Method 300/300.1 and total dissolved solids (TDS) by EPA Method SM2540C.

5.3 Analytical Results

Groundwater sample analytical results were compared to the Texas Commission of Environmental Quality (TCEQ) Secondary Drinking Water Standards and Secondary Constituent levels for chloride (300 milligrams per liter [mg/L]) and TDS (1,000 [mg/L]). The groundwater sample analytical results from the January, April, July, and October 2018 events are listed in Tables 6. The groundwater chloride and TDS concentrations and isopleths for the 2018 sampling events are shown on Figures 7 through 14, and the analytical laboratory reports are included in Appendix B. The concentrations of chlorides and TDS are generally consistent with historical events. A table of historical analytical results is included in Appendix C

5.4 Quality Assurance/Quality Control

During the 2018 sampling events, ten duplicate samples were collected for chloride and TDS during each sampling event to confirm sample quality and reproducibility. No significant deviations were encountered in the sample results for duplicate constituents. Additionally, the certified groundwater laboratory reports received from Xenco Laboratory were reviewed and approved by a GHD analytical chemist for laboratory and field method Quality Assurance/Quality Control (QA/QC). The associated data validation reports issued by GHD are included in Appendix D.

6. Conclusions and Path Forward

During the fourth quarter 2018 regulatory meetings, CEMC proposed an additional groundwater investigation to be conducted at the Site in 2019 to establish long-term plume management monitoring points in Texas and New Mexico, and further delineate the downgradient groundwater plume boundary in both states. Additionally, the proposed 2019 wells in New Mexico will be used to define groundwater model parameters, identify bedrock elevations across the Dollarhide field and the monument draw, and define saturated thickness of the Ogallala aquifer and groundwater flow conditions.

The scope of work and objectives for the additional groundwater investigation were included in the *2019 Work Plan for Additional Groundwater Investigation* that was submitted to the RRC and OCD on February 1, 2019. The RRC concurred with the proposed activities and responded with approval on February 7, 2019 for the 2019 groundwater investigation activities. The installation of additional monitor wells is scheduled to be completed in the second quarter 2019, pending access agreements and issuance of applicable well permits from the New Mexico Office of the State Engineer. CEMC anticipates scheduling an update meeting with the RRC and the OCD in the third or fourth quarter 2019 to discuss the results of the 2019 groundwater investigation.

CEMC will continue conducting quarterly monitoring only for the monitor wells recently installed in 2015, 2016, 2017, and 2019. Monitor wells installed before 2015 will continue to be sampled semi-annually. Additionally, the RRC has requested that groundwater reporting be moved from

Released to Imaging: 11/21/2023 10:32:34 AM

annual to semi-annual reporting. In compliance with this request, a report detailing the first two quarters of 2019 groundwater monitoring data will be submitted to the RRC by August 1, 2019.

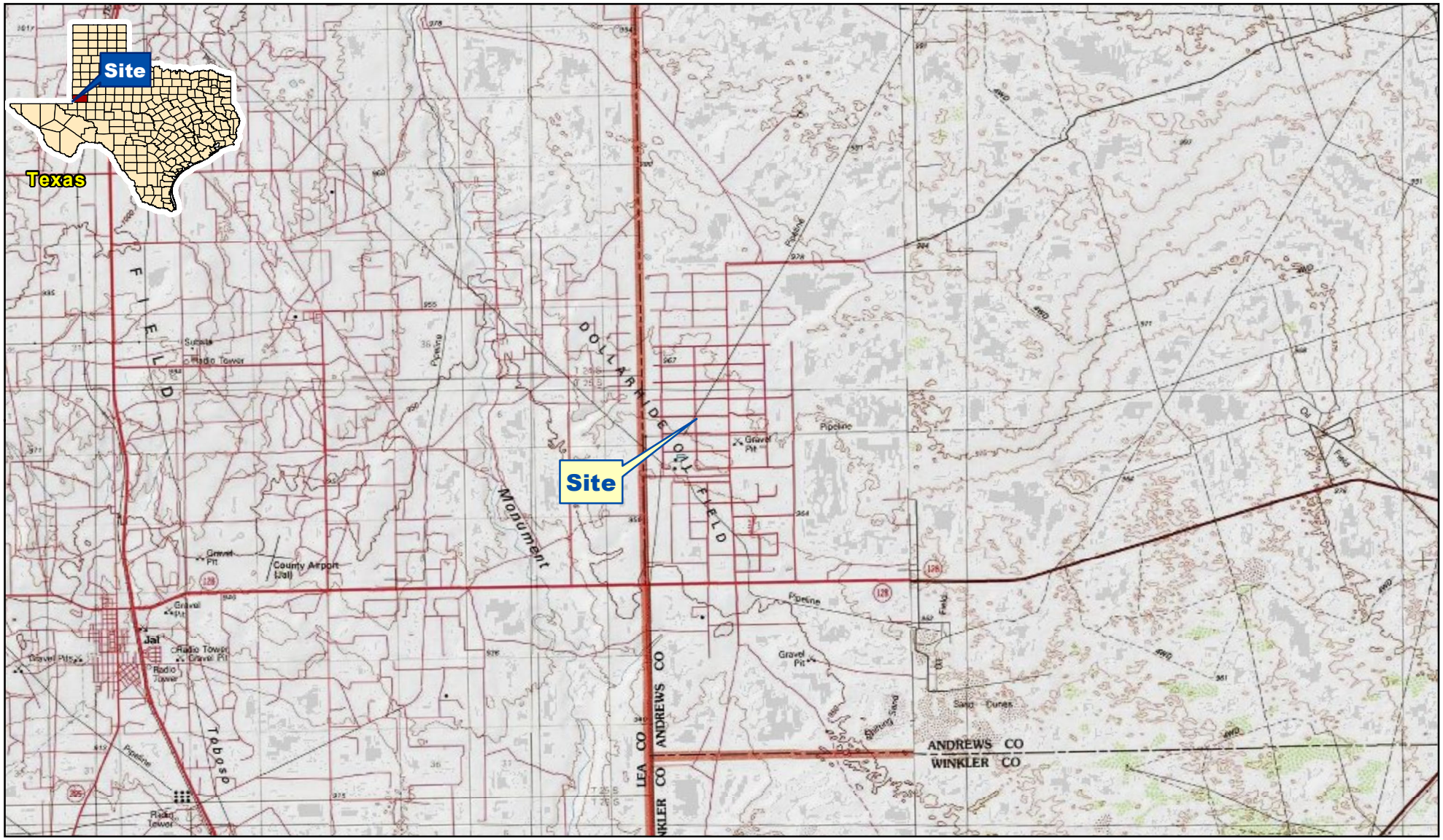
Should you have any questions regarding this submittal, please contact Nick G. Casten of GHD at (225) 296-6513 or Adriane Gifford of CEMC at (832) 854-5620.

All of which is Respectfully Submitted

GHD,

Nicholas G. Casten

Brian L. Carter, PhD
Texas PG No. 10319



Source: USGS 7.5 Minute Topographic Maps.

0 1 2
Miles

Coordinate System:
NAD 1983 UTM Zone 13N

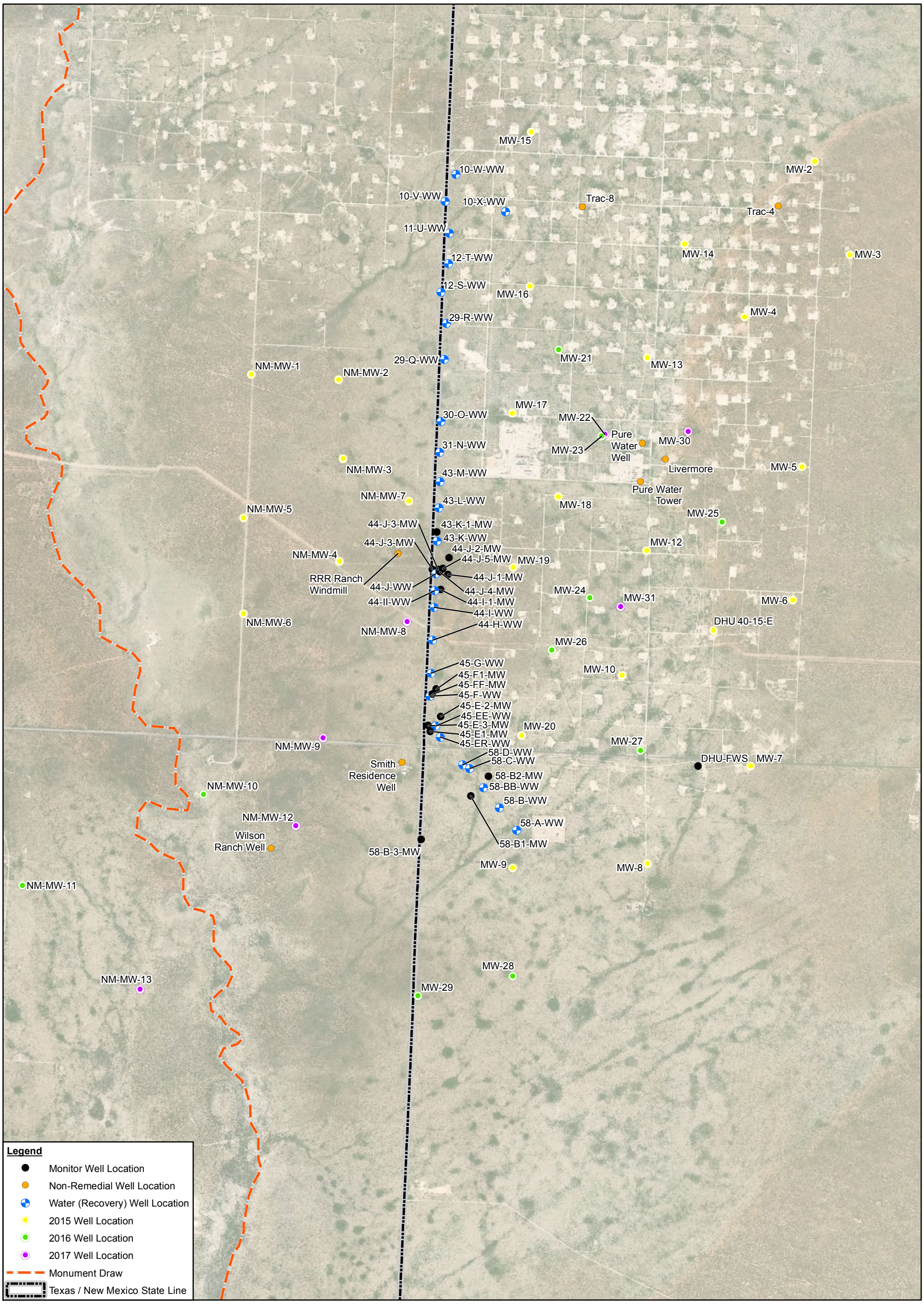
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
CHEVRON DOLLARHIDE UNIT

055270-2018
Feb 7, 2019

SITE VICINITY MAP

FIGURE 1

GIS File: \\ghdnet\ghd\US\Baton Rouge\Projects\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR013.mxd



Source: ESRI World Imagery Basemap Service, Digital Globe: 10/11/2016

0 2,700
Feet

Coordinate System:
NAD 1983 StatePlane Texas North Central FIPS 4202 Feet

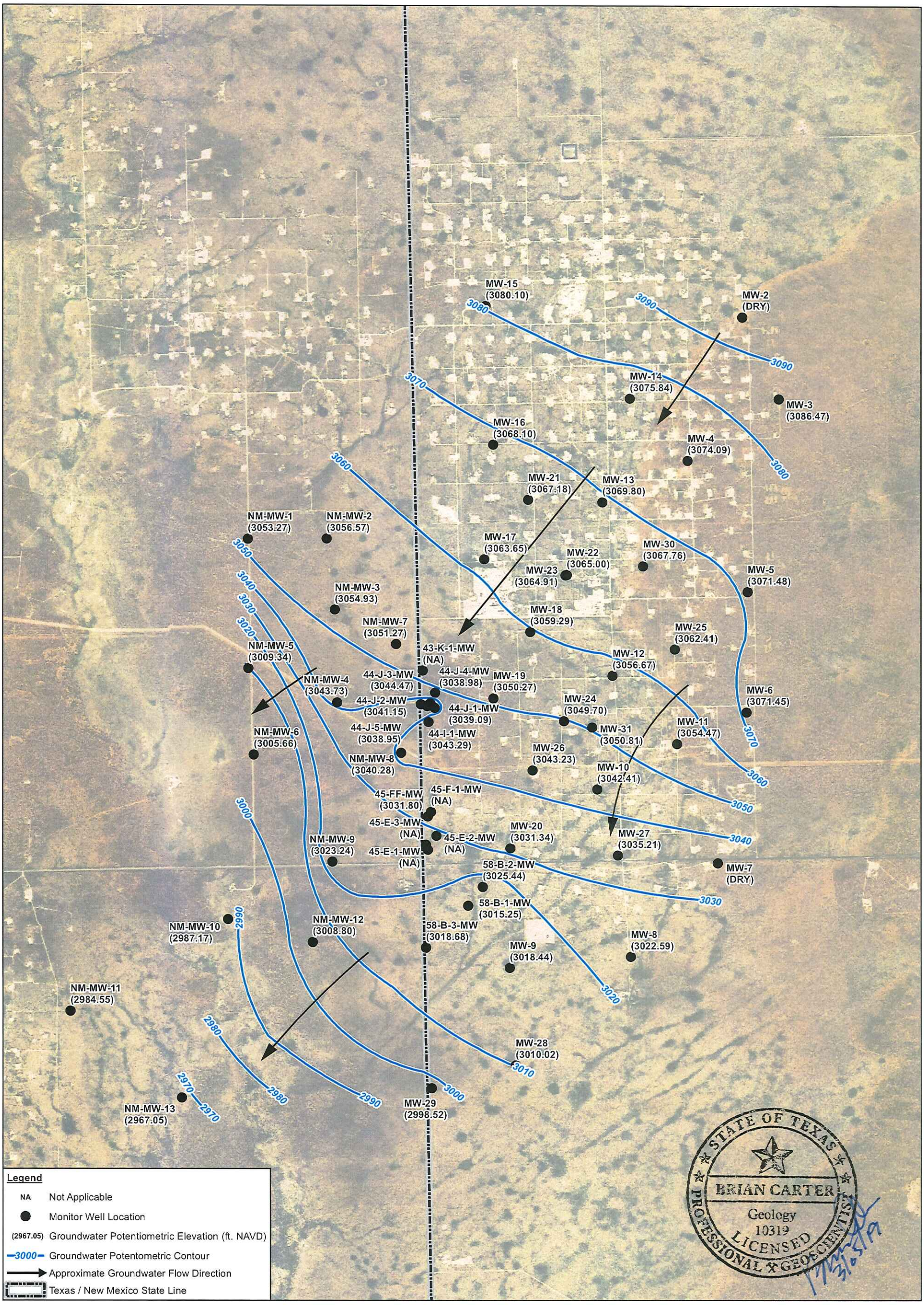
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270-2018
Feb 21, 2019

SITE DETAILS MAP

FIGURE 2

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR014.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

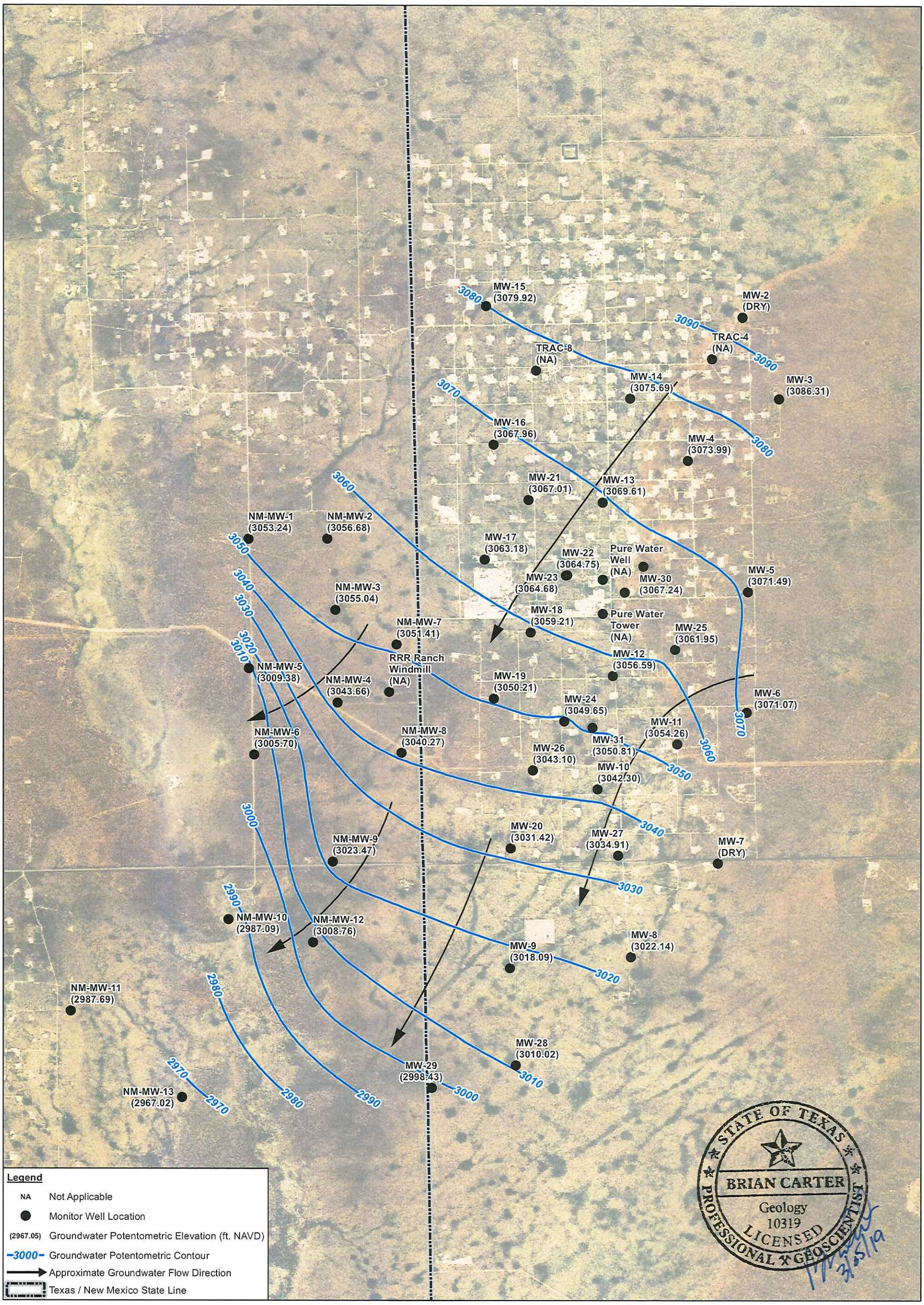
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JANUARY 2018 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270-2018
Feb 20, 2019

FIGURE 3

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR001.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

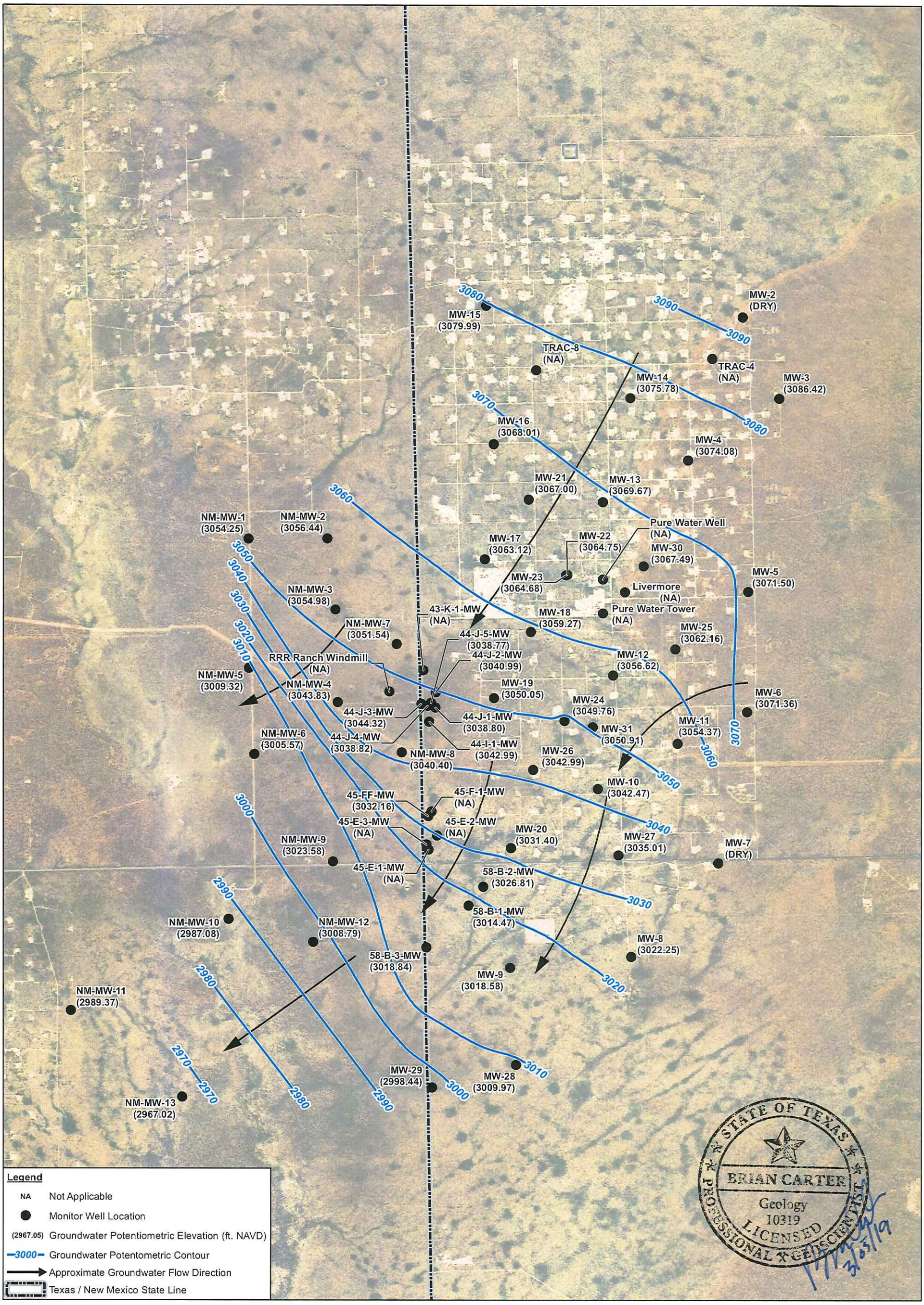
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2018 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270-2018
Feb 20, 2019

FIGURE 4

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR004.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

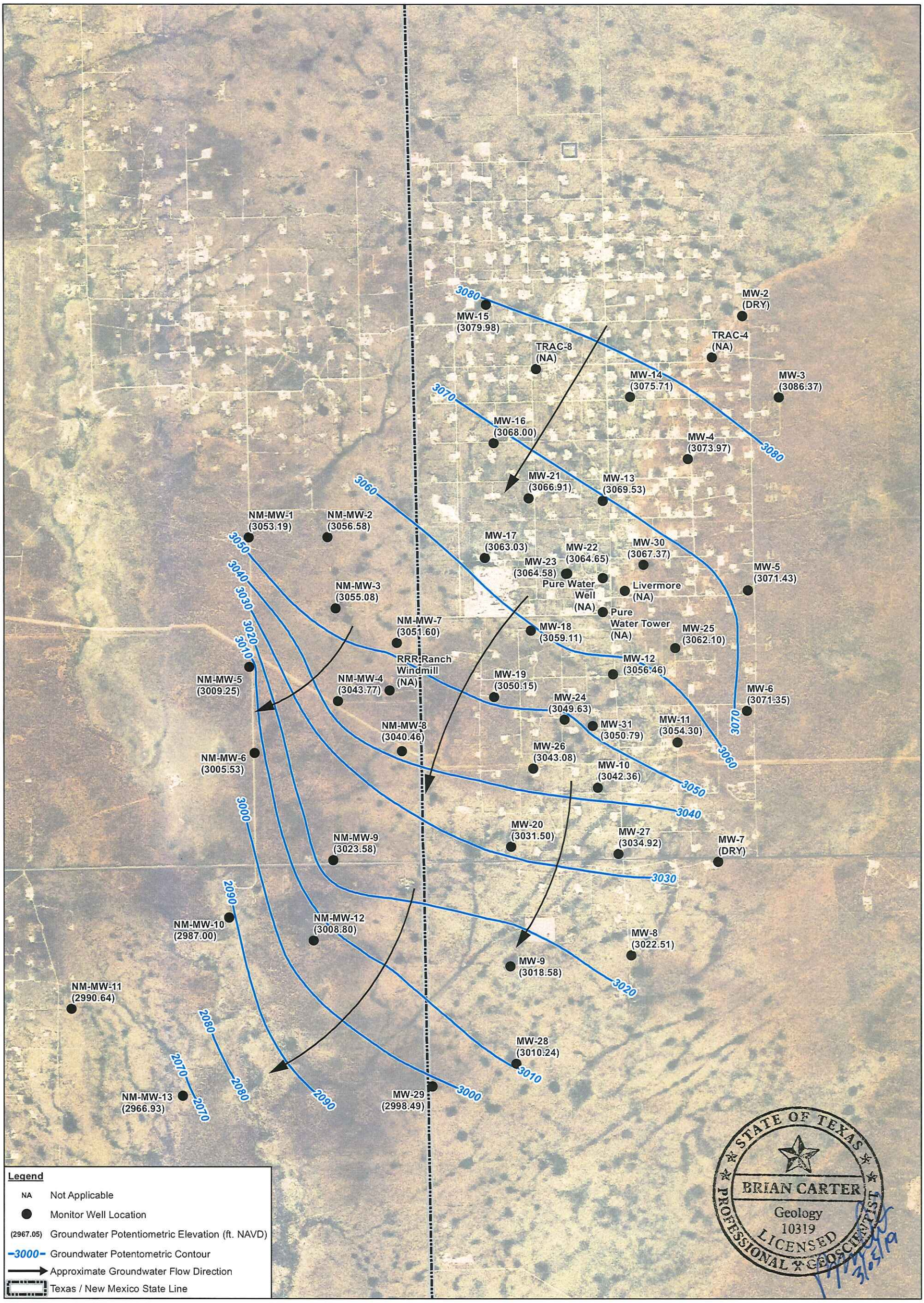
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JULY 2018 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270-2018
Feb 20, 2019

FIGURE 5

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR007.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

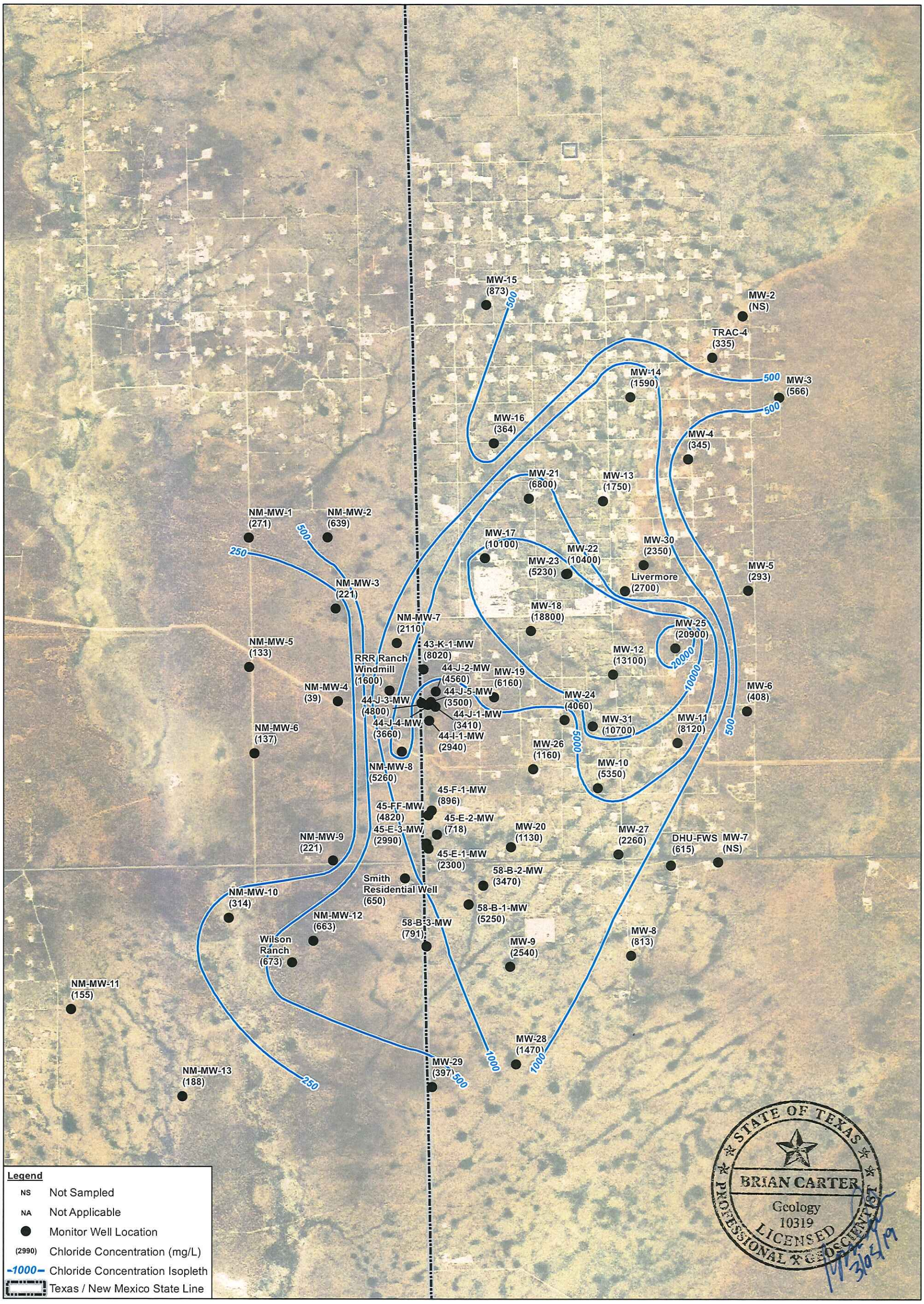
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

OCTOBER 2018 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270-2018
Feb 20, 2019

FIGURE 6

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR010.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

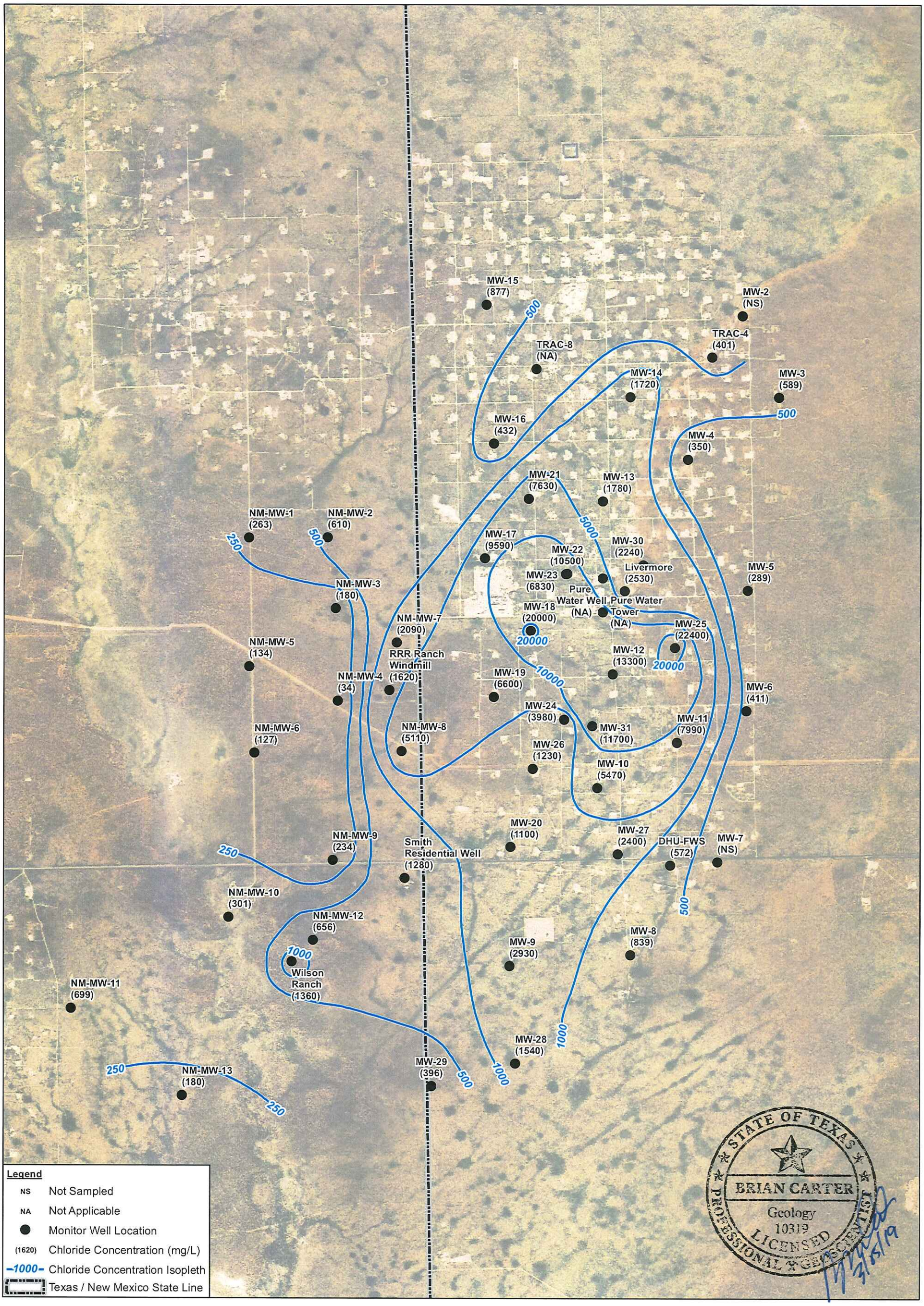
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JANUARY 2018 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 7

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR002.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

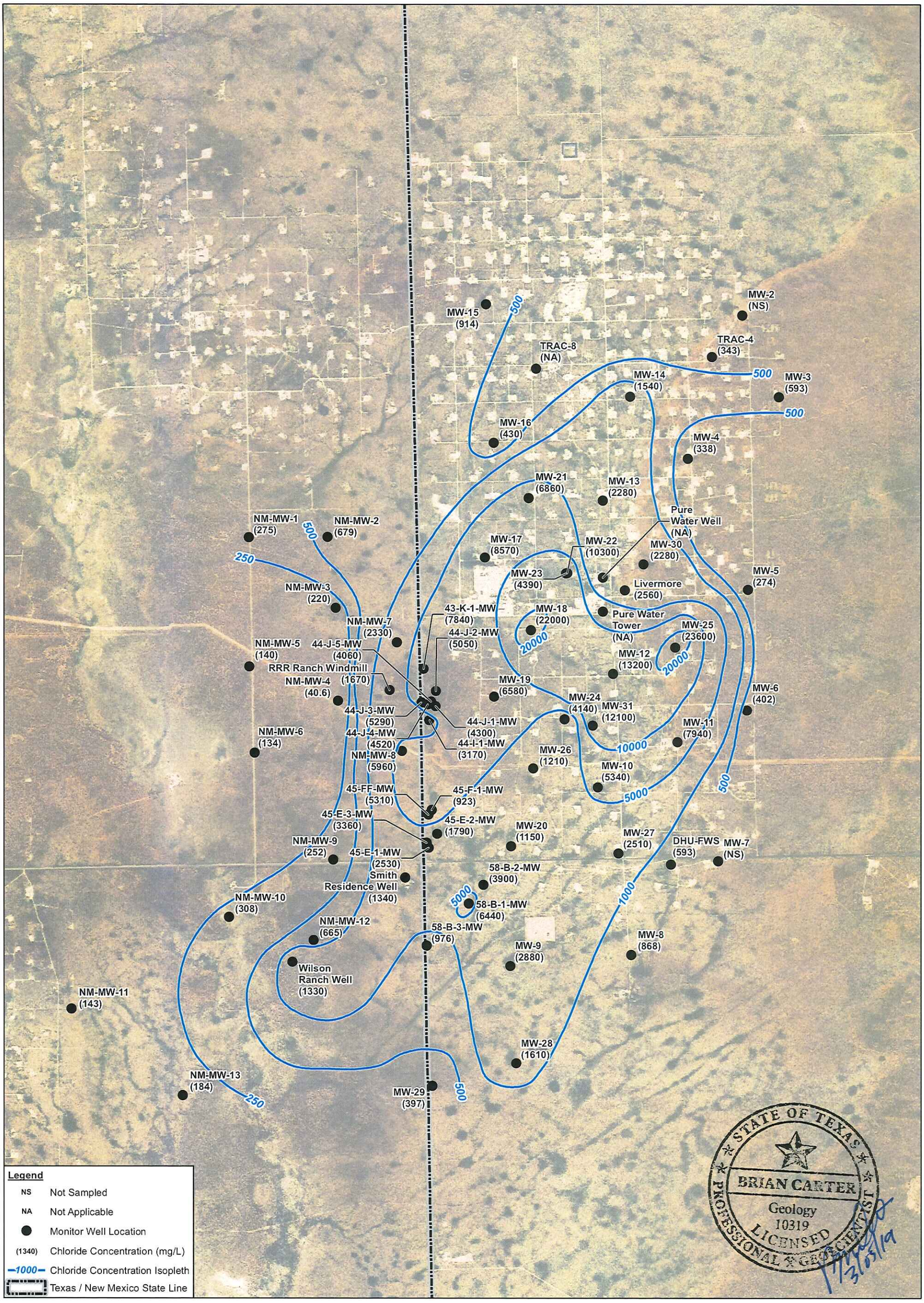
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2018 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 22, 2019

FIGURE 8

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR005.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

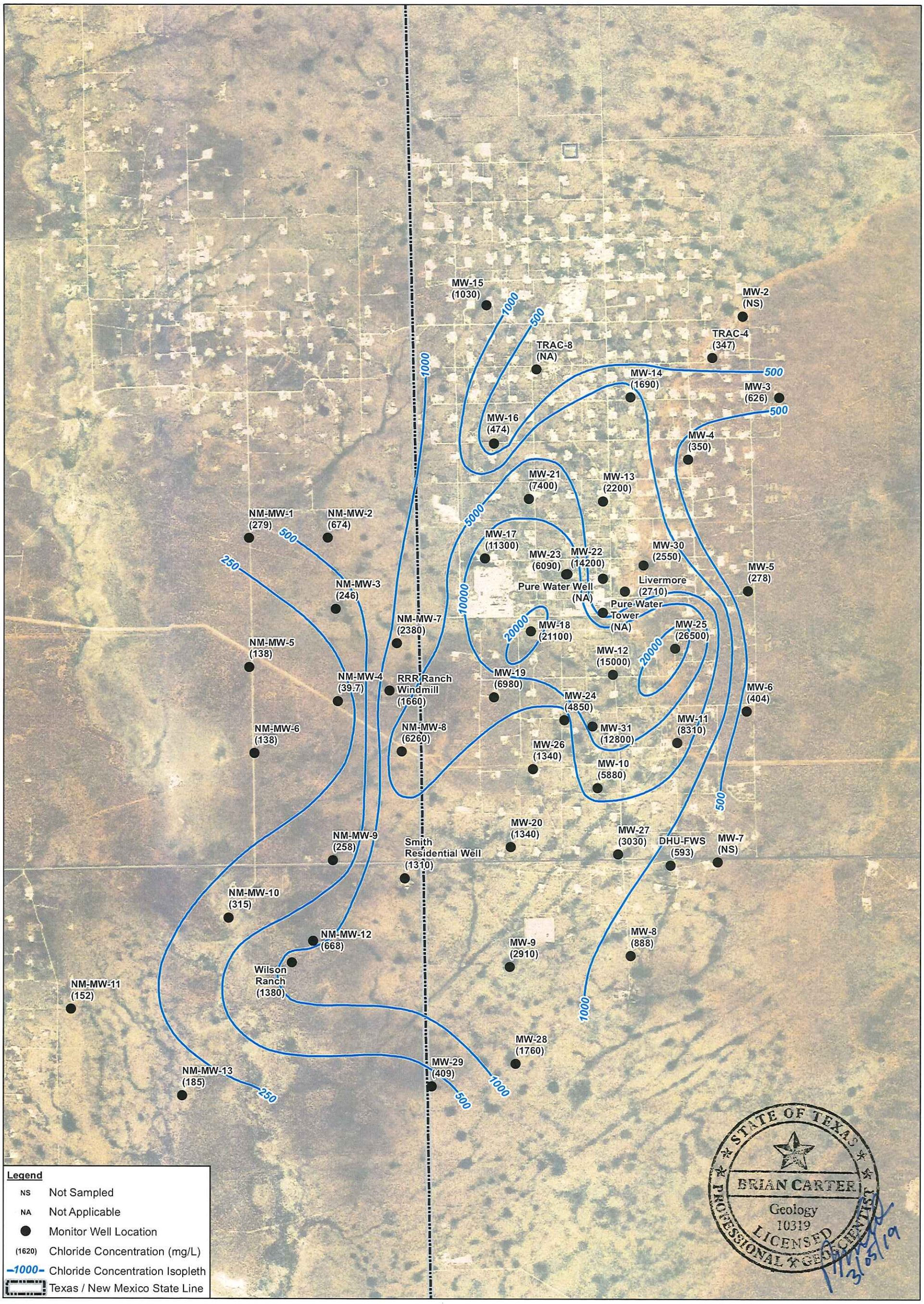
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JULY 2018 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 9

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR008.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

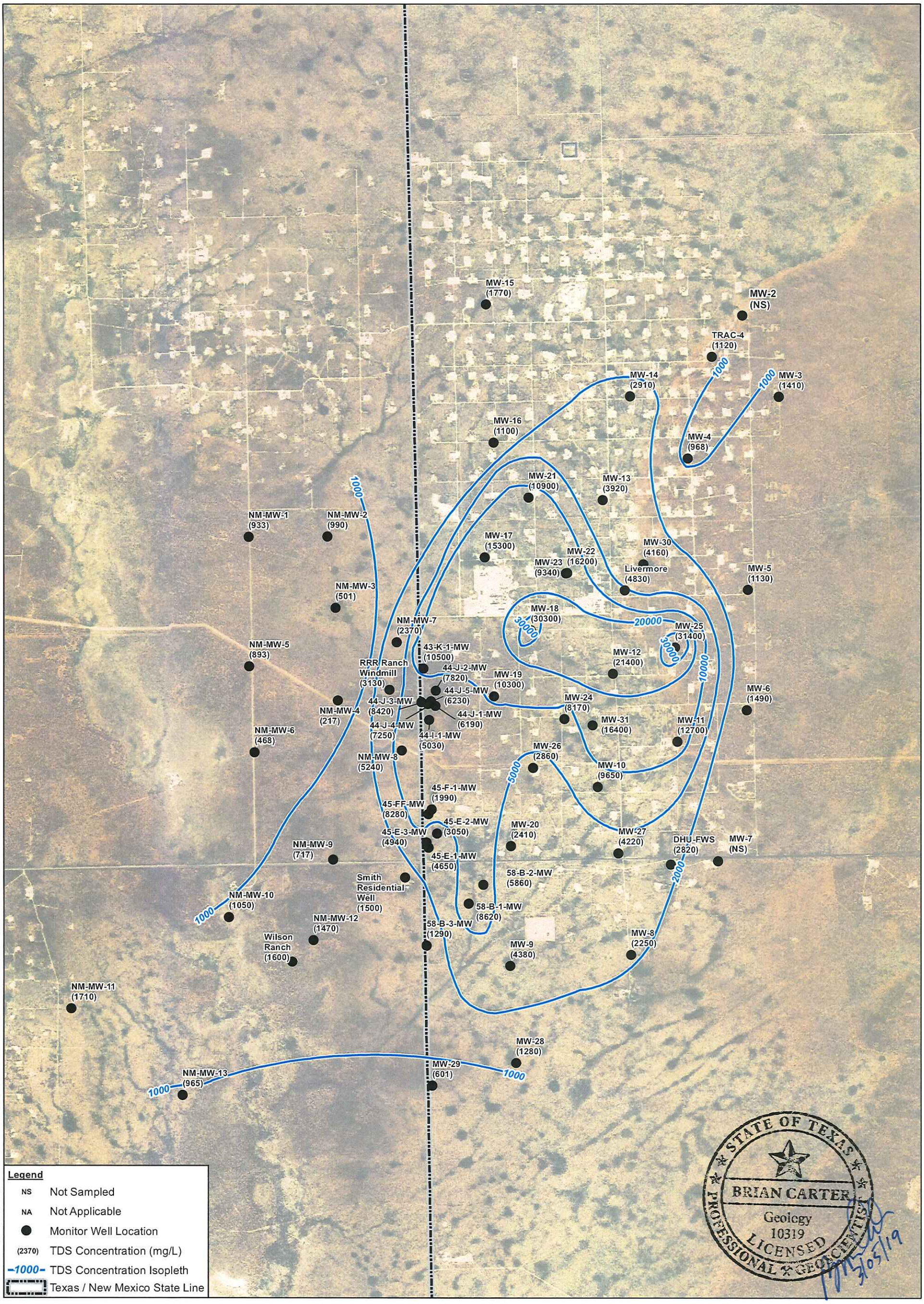
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

OCTOBER 2018 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 10

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR011.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

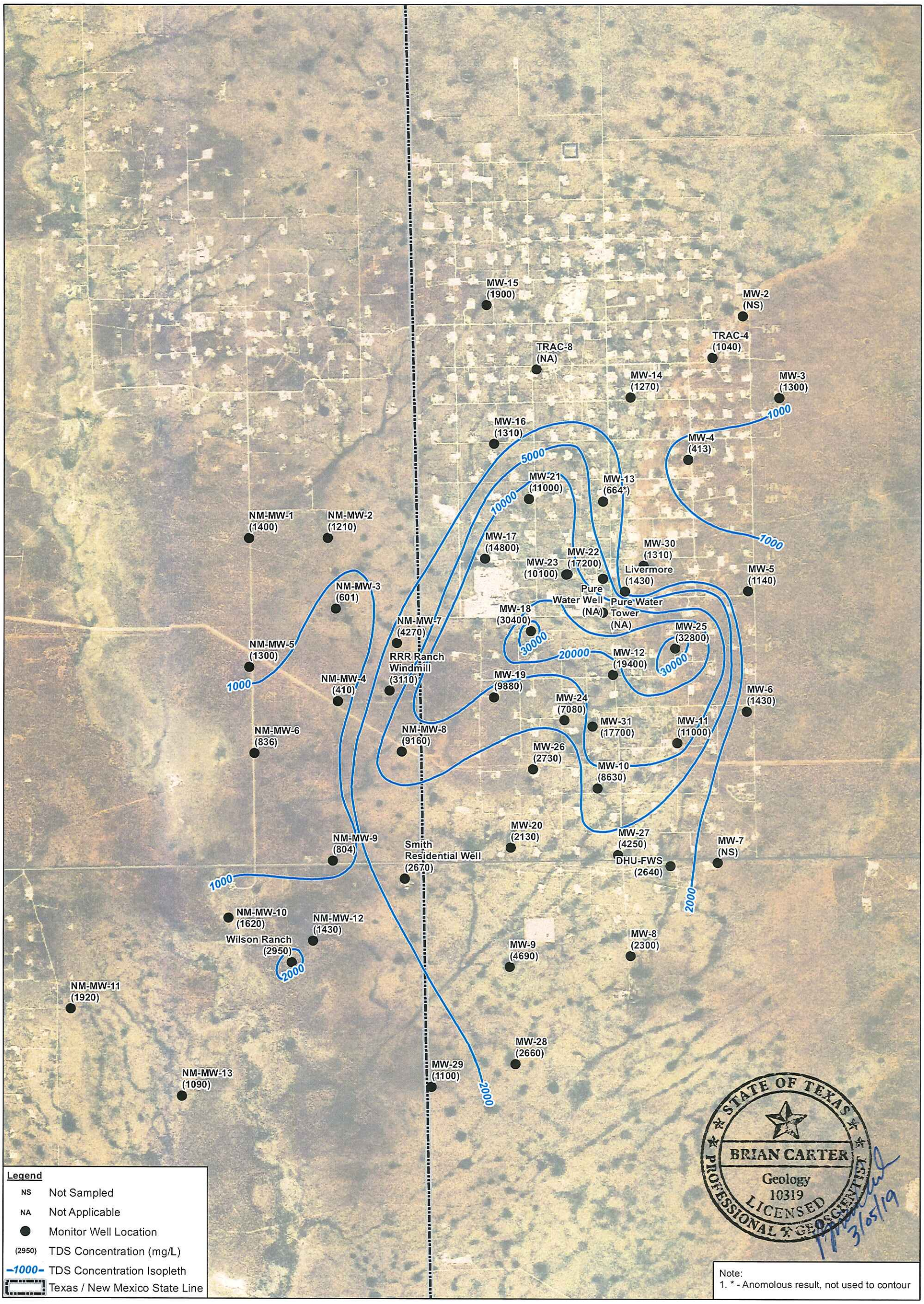
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JANUARY 2018 GROUNDWATER TDS CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 11

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR003.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

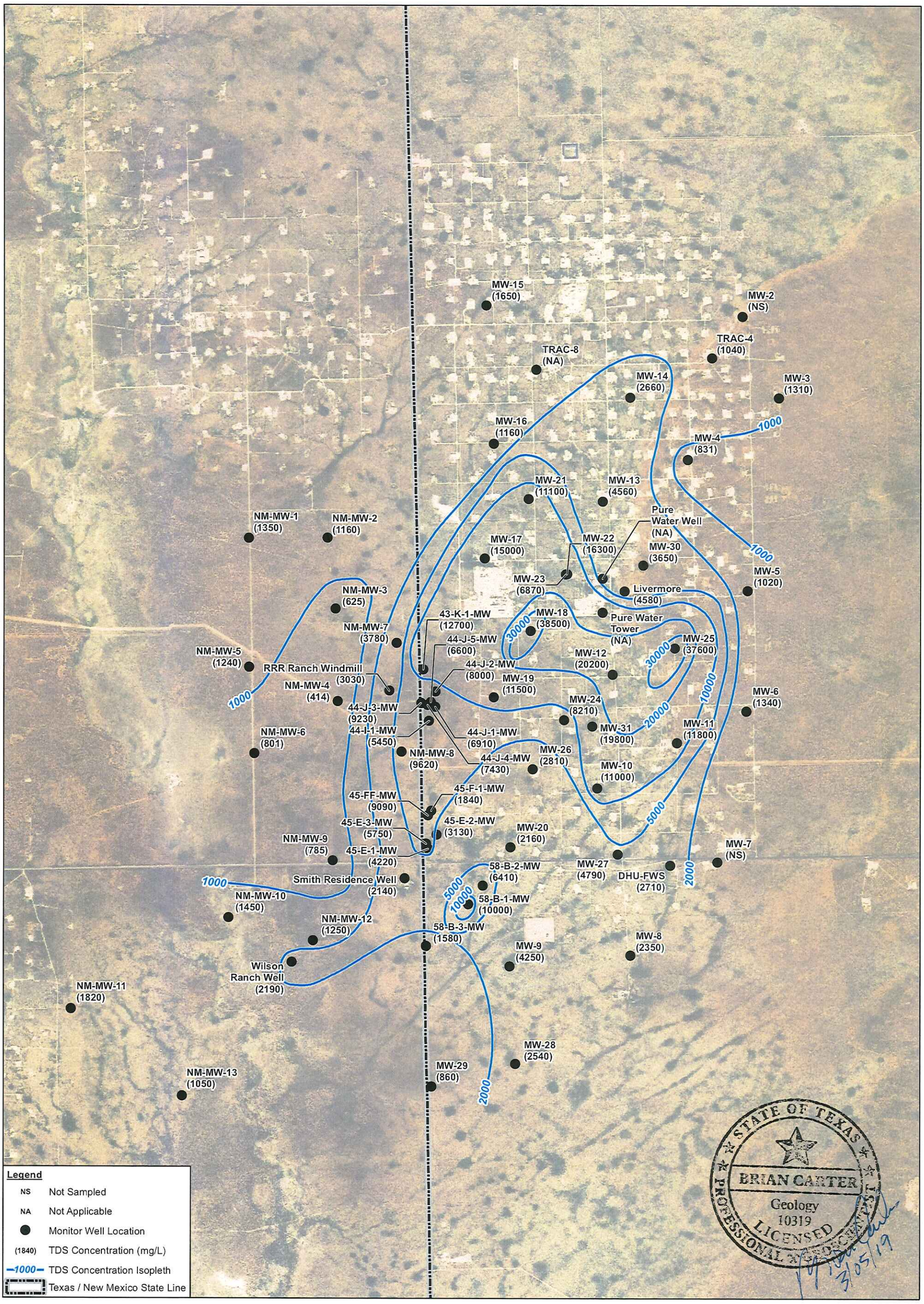
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2018 GROUNDWATER TDS CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 22, 2019

FIGURE 12

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR006.mxd



Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

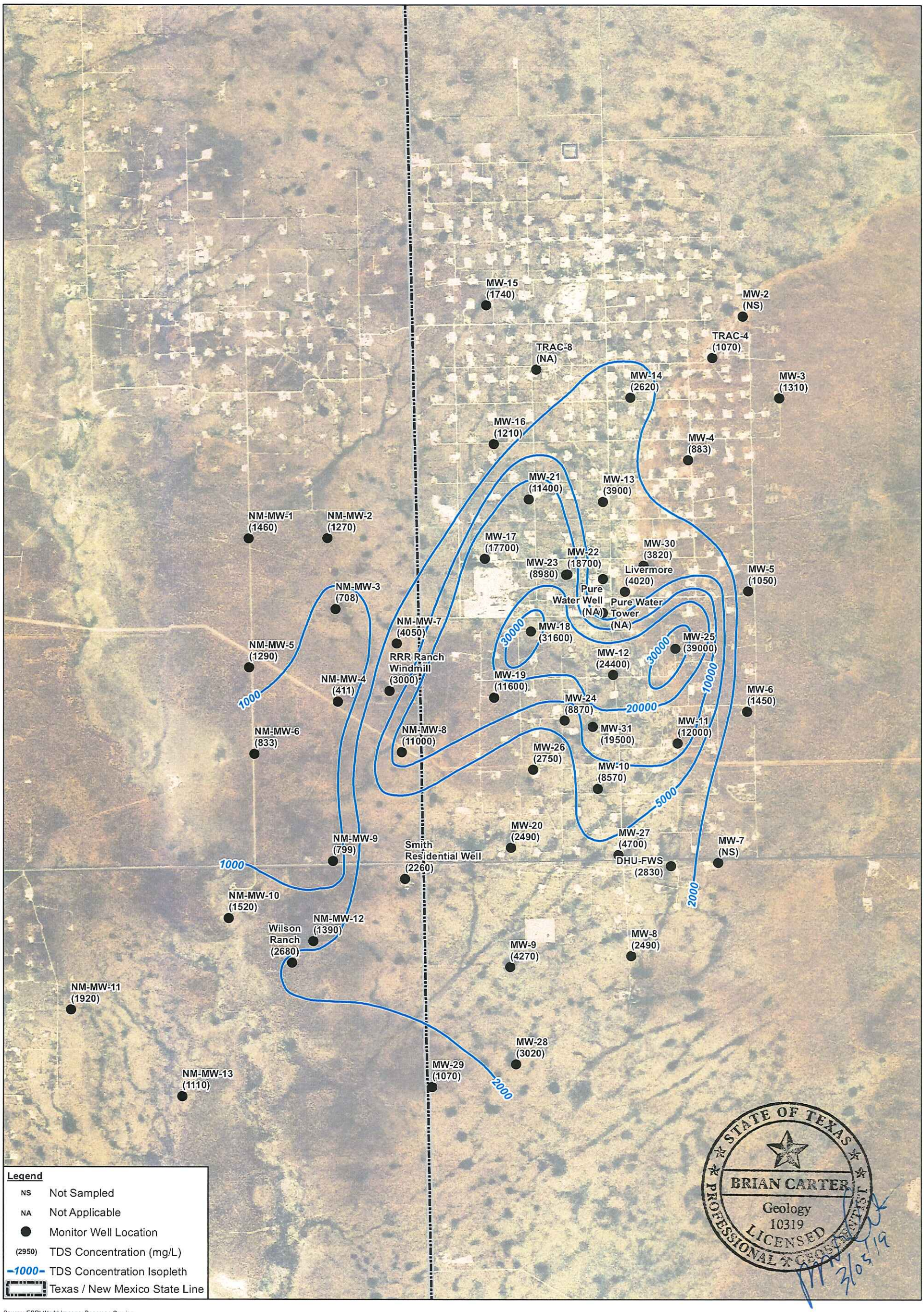
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

JULY 2018 GROUNDWATER TDS CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 13

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR009.mxd



STATE OF TEXAS
BRIAN CARTER
Geology
10319
LICENSED
PROFESSIONAL GEOSCIENTIST

3/05/19

Source: ESRI World Imagery Basemap Service.

0 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

OCTOBER 2018 GROUNDWATER TDS CONCENTRATIONS & ISOPLETHS

055270-2018
Feb 20, 2019

FIGURE 14

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\015\055270-00(015)GIS-BR012.mxd

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Recovery Wells	10-V-WW
	10-W-WW
	10-X-WW
	11-U-WW
	12-S-WW
	12-T-WW
	29-Q-WW
	29-R-WW
	30-O-WW
	31-N-WW
	43-K-WW
	43-L-WW
	43-M-WW
	44-H-WW
	44-I-WW
	44-II-WW
	44-J-WW
	45-EE-WW
	45-ER-WW
	45-F-WW
	45-G-WW
	58-A-WW
	58-B-WW
	58-BB-WW
	58-C-WW
	58-D-WW
Monitor Wells	43-K-1-MW
	44-I-1-MW
	44-J-1-MW
	44-J-2-MW
	44-J-3-MW
	44-J-4-MW
	44-J-5-MW
	45-E-1-MW
	45-E-2-MW
	45-E-3-MW
	45-F-1-MW
	45-FF-MW
	58-B-1-MW
	58-B-2-MW
	58-B-3-MW
	MW-2(1)
	MW-3(1)
	MW-4(1)
	MW-5(1)
	MW-6(1)
	MW-7(1)

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Monitor Wells	MW-8(1)
	MW-9(1)
	MW-10(1)
	MW-11(1)
	MW-12(1)
	MW-13(1)
	MW-14(1)
	MW-15(1)
	MW-16(1)
	MW-17(1)
	MW-18(1)
	MW-19(1)
	MW-20(1)
	MW-21(1)
	MW-22(1)
	MW-23(1)
	MW-24(1)
	MW-25(1)
	MW-26(1)
	MW-27(1)
	MW-28(1)
	MW-29(1)
	MW-30(1)
	MW-31(1)
	NM-MW-1(1)
	NM-MW-2(1)
	NM-MW-3(1)
	NM-MW-4(1)
	NM-MW-5(1)
	NM-MW-6(1)
	NM-MW-7(1)
	NM-MW-8(1)
	NM-MW-9(1)
	NM-MW-10(1)
	NM-MW-11(1)
	NM-MW-12(1)
	NM-MW-13(1)

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Non-Remedial Wells	Livermore
	Pure Water Tower
	Pure Water Well
	RRR Ranch Windmill
	TRAC-4
	TRAC-8
	Smith Residence
	Wilson Ranch Well

Note:
(1) Indicates monitor wells installed in 2015, 2016, and 2017 that are voluntarily sampled quarterly.

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

January 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
43-K-1-MW	NM	94.61	NA
44-I-1-MW	3,138.93	95.64	3,043.29
44-J-1-MW	3,134.50	95.41	3,039.09
44-J-2-MW	3,135.30	94.15	3,041.15
44-J-3-MW	3,140.19	95.72	3,044.47
44-J-4-MW	3,133.69	94.71	3,038.98
44-J-5-MW	3,134.75	95.80	3,038.95
45-E-1-MW	NM	88.74	NA
45-E-2-MW	NM	86.23	NA
45-E-3-MW	NM	89.35	NA
45-F-1-MW	NM	90.44	NA
45-FF-MW	3,122.70	90.90	3,031.80
58-B-1-MW	3,100.59	85.34	3,015.25
58-B-2-MW	3,111.91	86.47	3,025.44
58-B-3-MW	3,108.46	89.78	3,018.68
MW-2	3,204.56	109.15	3,095.41
MW-3	3,199.51	113.04	3,086.47
MW-4	3,189.69	115.60	3,074.09
MW-5	3,174.43	102.95	3,071.48
MW-6	3,165.25	93.80	3,071.45
MW-7	3,132.14	-	3,132.14
MW-8	3,107.34	84.75	3,022.59
MW-9	3,103.82	85.38	3,018.44
MW-10	3,139.71	97.30	3,042.41
MW-11	3,156.65	102.18	3,054.47
MW-12	3,151.33	94.66	3,056.67
MW-13	3,168.41	98.61	3,069.80
MW-14	3,182.69	106.85	3,075.84
MW-15	3,184.55	104.45	3,080.10
MW-16	3,167.93	99.83	3,068.10
MW-17	3,147.44	83.79	3,063.65
MW-18	3,155.01	95.72	3,059.29
MW-19	3,149.90	99.63	3,050.27
MW-20	3,120.09	88.75	3,031.34
MW-21	3,159.65	92.47	3,067.18
MW-22	3,152.50	87.50	3,065.00

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

January 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-23	3,151.66	86.75	3,064.91
MW-24	3,144.88	95.18	3,049.70
MW-25	3,165.45	103.04	3,062.41
MW-26	3,136.99	93.76	3,043.23
MW-27	3,126.99	91.78	3,035.21
MW-28	3,093.86	83.84	3,010.02
MW-29	3,098.60	100.08	2,998.52
MW-30	3,170.95	103.19	3,067.76
MW-31	3,145.41	94.60	3,050.81
NM-MW-1	3,124.90	71.63	3,053.27
NM-MW-2	3,152.86	96.29	3,056.57
NM-MW-3	3,146.86	91.93	3,054.93
NM-MW-4	3,154.21	110.48	3,043.73
NM-MW-5	3,109.14	99.80	3,009.34
NM-MW-6	3,093.23	87.57	3,005.66
NM-MW-7	3,147.67	96.40	3,051.27
NM-MW-8	3,138.62	98.34	3,040.28
NM-MW-9	3,118.18	94.94	3,023.24
NM-MW-10	3,066.32	79.15	2,987.17
NM-MW-11	3,075.44	90.89	2,984.55
NM-MW-12	3,105.47	96.67	3,008.80
NM-MW-13	3,051.17	84.12	2,967.05
Non-Remedial Wells			
RRR Ranch Windmill	NM	94.24	NA
Livermore	NM	94.97	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 3

April 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
MW-2	3,204.56	109.15	3,095.41
MW-3	3,199.51	113.20	3,086.31
MW-4	3,189.69	115.70	3,073.99
MW-5	3,174.43	102.94	3,071.49
MW-6	3,165.25	94.18	3,071.07
MW-7	3,132.14	116.66	3,132.14
MW-8	3,107.34	85.20	3,022.14
MW-9	3,103.82	85.73	3,018.09
MW-10	3,139.71	97.41	3,042.30
MW-11	3,156.65	102.39	3,054.26
MW-12	3,151.33	94.74	3,056.59
MW-13	3,168.41	98.80	3,069.61
MW-14	3,182.69	107.00	3,075.69
MW-15	3,184.55	104.63	3,079.92
MW-16	3,167.93	99.97	3,067.96
MW-17	3,147.44	84.26	3,063.18
MW-18	3,155.01	95.80	3,059.21
MW-19	3,149.90	99.69	3,050.21
MW-20	3,120.09	88.67	3,031.42
MW-21	3,159.65	92.64	3,067.01
MW-22	3,152.50	87.75	3,064.75
MW-23	3,151.66	86.98	3,064.68
MW-24	3,144.88	95.23	3,049.65
MW-25	3,165.45	103.50	3,061.95
MW-26	3,136.99	93.89	3,043.10
MW-27	3,126.99	92.08	3,034.91
MW-28	3,093.86	83.84	3,010.02
MW-29	3,098.60	100.17	2,998.43

Released to Imaging: 11/21/2023 10:32:34 AM

Table 3

April 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-30	3,170.95	103.71	3,067.24
MW-31	3,145.41	94.60	3,050.81
NM-MW-1	3,124.90	71.66	3,053.24
NM-MW-2	3,152.86	96.18	3,056.68
NM-MW-3	3,146.86	91.82	3,055.04
NM-MW-4	3,154.21	110.55	3,043.66
NM-MW-5	3,109.14	99.76	3,009.38
NM-MW-6	3,093.23	87.53	3,005.70
NM-MW-7	3,147.67	96.26	3,051.41
NM-MW-8	3,138.62	98.35	3,040.27
NM-MW-9	3,118.18	94.71	3,023.47
NM-MW-10	3,066.32	79.23	2,987.09
NM-MW-11	3,075.44	87.75	2,987.69
NM-MW-12	3,105.47	96.71	3,008.76
NM-MW-13	3,051.17	84.15	2,967.02
Non-Remedial Wells			
RRR Ranch Windmill	NM	94.23	NA
Livermore	NM	95.97	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

July 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
43-K-1-MW	NM	94.47	NA
44-I-1-MW	3,138.93	95.94	3,042.99
44-J-1-MW	3,134.50	95.70	3,038.80
44-J-2-MW	3,135.30	94.31	3,040.99
44-J-3-MW	3,140.19	95.87	3,044.32
44-J-4-MW	3,133.69	94.87	3,038.82
44-J-5-MW	3,134.75	95.98	3,038.77
45-E-1-MW	NM	88.37	NA
45-E-2-MW	NM	88.85	NA
45-E-3-MW	NM	88.75	NA
45-F-1-MW	NM	90.14	NA
45-FF-MW	3,122.70	90.54	3,032.16
58-B-1-MW	3,100.59	86.12	3,014.47
58-B-2-MW	3,111.91	85.10	3,026.81
58-B-3-MW	3,108.46	89.62	3,018.84
MW-2	3,204.56	109.15	3,095.41
MW-3	3,199.51	113.09	3,086.42
MW-4	3,189.69	115.61	3,074.08
MW-5	3,174.43	102.93	3,071.50
MW-6	3,165.25	93.89	3,071.36
MW-7	3,132.14	116.70	3,132.14
MW-8	3,107.34	85.09	3,022.25
MW-9	3,103.82	85.24	3,018.58
MW-10	3,139.71	97.24	3,042.47
MW-11	3,156.65	102.28	3,054.37
MW-12	3,151.33	94.71	3,056.62
MW-13	3,168.41	98.74	3,069.67
MW-14	3,182.69	106.91	3,075.78
MW-15	3,184.55	104.56	3,079.99
MW-16	3,167.93	99.92	3,068.01
MW-17	3,147.44	84.32	3,063.12
MW-18	3,155.01	95.74	3,059.27
MW-19	3,149.90	99.85	3,050.05
MW-20	3,120.09	88.69	3,031.40
MW-21	3,159.65	92.65	3,067.00
MW-22	3,152.50	87.75	3,064.75

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

July 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-23	3,151.66	86.98	3,064.68
MW-24	3,144.88	95.12	3,049.76
MW-25	3,165.45	103.29	3,062.16
MW-26	3,136.99	94.00	3,042.99
MW-27	3,126.99	91.98	3,035.01
MW-28	3,093.86	83.89	3,009.97
MW-29	3,098.60	100.16	2,998.44
MW-30	3,170.95	103.46	3,067.49
MW-31	3,145.41	94.50	3,050.91
NM-MW-1	3,124.90	70.65	3,054.25
NM-MW-2	3,152.86	96.42	3,056.44
NM-MW-3	3,146.86	91.88	3,054.98
NM-MW-4	3,154.21	110.38	3,043.83
NM-MW-5	3,109.14	99.82	3,009.32
NM-MW-6	3,093.23	87.66	3,005.57
NM-MW-7	3,147.67	96.13	3,051.54
NM-MW-8	3,138.62	98.22	3,040.40
NM-MW-9	3,118.18	94.60	3,023.58
NM-MW-10	3,066.32	79.24	2,987.08
NM-MW-11	3,075.44	86.07	2,989.37
NM-MW-12	3,105.47	96.68	3,008.79
NM-MW-13	3,051.17	84.15	2,967.02
Non-Remedial Wells			
RRR Ranch Windmill	NM	94.14	NA
Livermore	NM	95.19	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 5

October 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
MW-2	3,204.56	109.58	3,094.98
MW-3	3,199.51	113.14	3,086.37
MW-4	3,189.69	115.72	3,073.97
MW-5	3,174.43	103.00	3,071.43
MW-6	3,165.25	93.90	3,071.35
MW-7	3,132.14	116.61	3,132.14
MW-8	3,107.34	84.83	3,022.51
MW-9	3,103.82	85.24	3,018.58
MW-10	3,139.71	97.35	3,042.36
MW-11	3,156.65	102.35	3,054.30
MW-12	3,151.33	94.87	3,056.46
MW-13	3,168.41	98.88	3,069.53
MW-14	3,182.69	106.98	3,075.71
MW-15	3,184.55	104.57	3,079.98
MW-16	3,167.93	99.93	3,068.00
MW-17	3,147.44	84.41	3,063.03
MW-18	3,155.01	95.90	3,059.11
MW-19	3,149.90	99.75	3,050.15
MW-20	3,120.09	88.59	3,031.50
MW-21	3,159.65	92.74	3,066.91
MW-22	3,152.50	87.85	3,064.65
MW-23	3,151.66	87.08	3,064.58
MW-24	3,144.88	95.25	3,049.63
MW-25	3,165.45	103.35	3,062.10
MW-26	3,136.99	93.91	3,043.08
MW-27	3,126.99	92.07	3,034.92
MW-28	3,093.86	83.62	3,010.24
MW-29	3,098.60	100.11	2,998.49

Released to Imaging: 11/21/2023 10:32:34 AM

Table 5

October 2018 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-30	3,170.95	103.58	3,067.37
MW-31	3,145.41	94.62	3,050.79
NM-MW-1	3,124.90	71.71	3,053.19
NM-MW-2	3,152.86	96.28	3,056.58
NM-MW-3	3,146.86	91.78	3,055.08
NM-MW-4	3,154.21	110.44	3,043.77
NM-MW-5	3,109.14	99.89	3,009.25
NM-MW-6	3,093.23	87.7	3,005.53
NM-MW-7	3,147.67	96.07	3,051.60
NM-MW-8	3,138.62	98.16	NA
NM-MW-9	3,118.18	94.60	NA
NM-MW-10	3,066.32	79.32	2,987.00
NM-MW-11	3,075.44	84.80	2,990.64
NM-MW-12	3,105.47	96.67	NA
NM-MW-13	3,051.17	84.24	NA
Non-Remedial Wells			
RRR Ranch Windmill	NM	94.08	NA
Livermore	NM	95.26	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Released to Imaging: 11/21/2023 10:32:34 AM

Table 6

2018 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		April		July		October	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**
Monitor Wells								
43-K-1-MW	**8,020**	**10,500**	NS	NS	**7,840**	**12,700**	NS	NS
44-I-1-MW	**2,940**	**5,030**	NS	NS	**3,170**	**5,450**	NS	NS
44-J-1-MW	**3,410**	**6,190**	NS	NS	**4,300**	**6,910**	NS	NS
44-J-2-MW	**4,560**	**7,820**	NS	NS	**5,050**	**8,000**	NS	NS
44-J-3-MW	**4,800**	**8,420**	NS	NS	**5,290**	**9,230**	NS	NS
44-J-4-MW	**3,660**	**7,250**	NS	NS	**4,520**	**7,430**	NS	NS
44-J-5-MW	**3,500**	**6,230**	NS	NS	**4,060**	**6,600**	NS	NS
45-E-1-MW	**2,300**	**4,650**	NS	NS	**2,530**	**4,220**	NS	NS
45-E-2-MW	**718**	**3,050**	NS	NS	**1,790**	**3,130**	NS	NS
45-E-3-MW	**2,990**	**4,940**	NS	NS	**3,360**	**5,750**	NS	NS
45-F-1-MW	**896**	**1,990**	NS	NS	**923**	**1,840**	NS	NS
45-FF-MW	**4,820**	**8,280**	NS	NS	**5,310**	**9,090**	NS	NS
58-B-1-MW	**5,250**	**8,620**	NS	NS	**6,440**	**10,000**	NS	NS
58-B-2-MW	**3,470**	**5,860**	NS	NS	**3,900**	**6,410**	NS	NS
58-B-3-MW	**791**	**1,290**	NS	NS	**976**	**1,580**	NS	NS
MW-2	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	**566**	**1,410**	**589**	**1,300**	**593**	**1,310**	**626**	**1,310**
MW-4	**345**	968	**350**	413	**338**	831	**350**	883
MW-5	293	**1,130**	289	**1,140**	274	**1,020**	278	**1,050**
MW-6	**408**	**1,490**	**411**	**1,430**	**402**	**1,340**	**404**	**1,450**
MW-7	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	**813**	**2,250**	**839**	**2,300**	**868**	**2,350**	**888**	**2,490**
MW-9	**2,540**	**4,380**	**2,930**	**4,690**	**2,880**	**4,250**	**2,910**	**4,270**
MW-10	**5,350**	**9,650**	**5,470**	**8,630**	**5,340**	**11,000**	**5,880**	**8,570**
MW-11	**8,120**	**12,700**	**7,990**	**11,000**	**7,940**	**11,800**	**8,310**	**12,000**
MW-12	**13,100**	**21,400**	**13,300**	**19,400**	**13,200**	**20,200**	**15,000**	**24,400**
MW-13	**1,750**	**3,920**	**1,780**	**664**	**2,280**	**4,560**	**2,200**	**3,900**
MW-14	**1,590**	**2,910**	**1,720**	**1,270**	**1,540**	**2,660**	**1,690**	**2,620**
MW-15	**873**	**1,770**	**877**	**1,900**	**914**	**1,650**	**1,030**	**1,740**
MW-16	**364**	**1,100**	**432**	**1,310**	**430**	**1,160**	**474**	**1,210**
MW-17	**10,100**	**15,300**	**9,590**	**14,800**	**8,570**	**15,000**	**11,300**	**17,700**
MW-18	**18,800**	**30,300**	**20,000**	**30,400**	**22,000**	**38,500**	**21,100**	**31,600**
MW-19	**6,160**	**10,300**	**6,600**	**9,880**	**6,580**	**11,500**	**6,980**	**11,600**
MW-20	**1,130**	**2,410**	**1,100**	**2,130**	**1,150**	**2,160**	**1,340**	**2,490**
MW-21	**6,800**	**10,900**	**7,630**	**11,000**	**6,860**	**11,100**	**7,400**	**11,400**
MW-22	**10,400**	**16,200**	**10,500**	**17,200**	**10,300**	**16,300**	**14,200**	**18,700**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 6

2018 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		April		July		October	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**
MW-23	**5,230**	**9,340**	**6,830**	**10,100**	**4,390**	**6,870**	**6,090**	**8,980**
MW-24	**4,060**	**8,170**	**3,980**	**7,080**	**4,140**	**8,210**	**4,850**	**8,870**
MW-25	**20,900**	**31,400**	**22,400**	**32,800**	**23,600**	**37,600**	**26,500**	**39,000**
MW-26	**1,160**	**2,860**	**1,230**	**2,730**	**1,210**	**2,810**	**1,340**	**2,750**
MW-27	**2,260**	**4,220**	**2,400**	**4,250**	**2,510**	**4,790**	**3,030**	**4,700**
MW-28	**1,470**	**1,280**	**1,540**	**2,660**	**1,610**	**2,540**	**1,760**	**3,020**
MW-29	**397**	601	**396**	**1,100**	**397**	860	**409**	**1,070**
MW-30	**2,350**	**4,160**	**2,240**	**1,310**	**2,280**	**3,650**	**2,550**	**3,820**
MW-31	**10,700**	**16,400**	**11,700**	**17,700**	**12,100**	**19,800**	**12,800**	**19,500**
NM-MW-1	271	933	263	**1,400**	275	**1,350**	279	**1,460**
NM-MW-2	**639**	990	**610**	**1,210**	**679**	**1,160**	**674**	**1,270**
NM-MW-3	221	501	180	601	220	625	246	708
NM-MW-4	39	217	34	410	40.6	414	39.7	411
NM-MW-5	133	893	134	**1,300**	140	**1,240**	138	**1,290**
NM-MW-6	137	468	127	836	134	801	138	833
NM-MW-7	**2,110**	**2,370**	**2,090**	**4,270**	**2,330**	**3,780**	**2,380**	**4,050**
NM-MW-8	**5,260**	**5,240**	**5,110**	**9,160**	**5,960**	**9,620**	**6,260**	**11,000**
NM-MW-9	221	717	234	807	252	785	258	799
NM-MW-10	**314**	**1,050**	**301**	**1,620**	**308**	**1,450**	**315**	**1,520**
NM-MW-11	155	**1,710**	**699**	**1,920**	143	**1,820**	152	**1,920**
NM-MW-12	**663**	**1,470**	**656**	**1,430**	**665**	**1,250**	**668**	**1,390**
NM-MW-13	188	965	180	**1,090**	184	**1,050**	185	**1,110**
Non-Remedial Wells								
Livermore	**2,700**	**4,830**	**2,530**	**1,430**	**2,560**	**4,580**	**2,710**	**4,020**
Pure Water Tower	NA	NA	NA	NA	NA	NA	NA	NA
Pure Water Well	NA	NA	NA	NA	NA	NA	NA	NA
RRR Ranch Windmill	**1,600**	**3,130**	**1,620**	**3,110**	**1,670**	**3,030**	**1,660**	**3,000**
Smith Residential Well	**650**	**1,500**	**1,280**	**2,670**	**1,340**	**2,140**	**1,310**	**2,260**
TRAC-4	**335**	**1,120**	**401**	**1,040**	**343**	**1,040**	**347**	**1,070**
TRAC-8	NA	NA	NA	NA	NA	NA	NA	NA
Wilson Ranch	**673**	**1,600**	**1,360**	**2,950**	**1,330**	**2,190**	**1,380**	**2,680**
DHU-FWS	**615**	**2,820**	**572**	**2,640**	**593**	**2,710**	**596**	**2,830**

Notes:
1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result was above the TCEQ Secondary Drinking Water Standard.
NA = Not Applicable
NS = Not Sampled

Released to Imaging: 11/21/2023 10:32:34 AM

Appendices

Appendix A
Historical Groundwater Elevations

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
10-V-WW						
3,169.13	08/13/09	NM	102.00	NA	NA	3,067.13
	NA	111.80	97.30	NA	NA	3,071.83
	05/16/12	114.50	100.66	NA	NA	3,068.47
	01/29/14	112.55	100.50	NA	NA	3,068.63
	07/14/15	NM	101.17	NA	NA	3,067.96
3,170.45	07/19/16	NM	NM	NA	NA	NA
10-W-WW						
3,173.01	08/13/09	NM	113.98	NA	NA	3,059.03
	01/20/11	124.00	95.00	NA	NA	3,078.01
	08/15/12	122.25	102.30	NA	NA	3,070.71
	08/30/13	122.10	102.20	NA	NA	3,070.81
10-X-WW						
3,167.16	08/13/09	NM	101.57	NA	NA	3,065.59
	02/15/10	NM	101.30	NA	NA	3,065.86
	08/30/13	115.50	102.80	NA	NA	3,064.36
11-U-WW						
3,165.47	NA	NM	NM	NA	NA	NA
12-S-WW						
3,156.76	08/13/09	NM	93.68	NA	NA	3,063.08
	09/02/09	118.00	93.40	NA	NA	3,063.36
	07/20/11	112.70	93.35	NA	NA	3,063.41
	09/15/14	111.21	93.80	NA	NA	3,062.96
	07/14/15	NM	106.91	NA	NA	3,049.85
3,158.24	07/19/16	NM	NM	NA	NA	NA
12-T-WW						
3,162.32	07/20/11	115.60	96.19	NA	NA	3,066.13
	07/14/15	NM	94.05	NA	NA	3,068.27
3,163.22	07/19/16	NM	NM	NA	NA	NA
29-Q-WW						
3,146.57	08/13/09	NM	104.42	NA	NA	3,042.15
	01/20/11	115.30	86.80	NA	NA	3,059.77
	09/28/11	111.40	85.80	NA	NA	3,060.77
	04/18/13	NM	85.65	NA	NA	3,060.92
29-R-WW						
3,152.50	07/07/09	NM	94.45	NA	NA	3,058.05
	08/13/09	NM	90.80	NA	NA	3,061.70
	04/18/13	NM	90.43	NA	NA	3,062.07
	10/18/13	115.22	90.80	NA	NA	3,061.70
	01/29/14	114.72	92.70	NA	NA	3,059.80
	07/14/15	NM	90.68	NA	NA	3,061.82
3,153.69	01/25/16	NM	91.02	NA	NA	3,062.67
30-O-WW						
3,144.06	07/07/08	NM	93.15	NA	NA	3,050.91
	08/13/09	NM	113.14	NA	NA	3,030.92
3,145.43	07/19/16	NM	NM	NA	NA	NA
31-N-WW						
3,148.52	07/07/08	NM	99.11	NA	NA	3,049.41
	08/13/09	NM	102.36	NA	NA	3,046.16
	07/14/15	NM	104.45	NA	NA	3,044.07
3,149.99	07/19/16	NM	NM	NA	NA	NA
43-K-WW						
3,142.59	NA	NM	NM	NA	NA	NA
	07/14/15	NM	96.78	NA	NA	3,045.81
3,144.12	07/19/16	NM	NM	NA	NA	NA
43-L-WW						
3,144.71	01/26/09	NM	NM	NA	NA	NA
	09/28/11	117.10	93.30	NA	NA	3,051.41
	10/18/13	117.19	94.00	NA	NA	3,050.71
43-M-WW						
3,147.75	10/18/13	106.13	95.52	NA	NA	3,052.23
	07/14/15	NM	95.31	NA	NA	3,052.44
3,149.15	07/19/16	NM	NM	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
44-H-WW						
3,131.98	08/05/11	NM	95.97	NA	NA	3,036.01
	08/15/12	NM	95.85	NA	NA	3,036.13
	01/30/13	NM	95.71	NA	NA	3,036.27
	07/14/14	NM	95.95	NA	NA	3,036.03
	01/12/15	NM	96.10	NA	NA	3,035.88
	01/26/16	NM	95.89	NA	NA	3,036.09
	07/20/16	NM	95.81	NA	NA	3,036.17
	01/13/17	NM	95.80	NA	NA	3,036.18
44-I-WW						
3,133.95	08/05/11	NM	96.91	93.82	3.09	3,039.36
	08/15/12	NM	96.70	93.83	2.87	3,039.40
	01/30/13	NM	96.64	93.67	2.97	3,039.54
	04/30/13	NM	96.70	93.84	2.86	3,039.40
	01/13/14	NM	96.66	93.94	2.72	3,039.33
	07/14/14	NM	96.55	93.96	2.59	3,039.34
	01/12/15	NM	96.58	94.01	2.57	3,039.30
	07/14/15	NM	96.28	95.01	1.27	3,038.62
	01/25/16	NM	96.28	93.83	2.45	3,039.51
	07/20/16	NM	96.30	93.92	2.38	3,039.44
	01/13/17	NM	96.10	93.80	2.30	3,039.58
	07/13/17	NM	96.05	93.89	2.16	3,039.52
44-II-WW						
3,133.53	07/07/08	NM	96.58	92.87	3.71	3,039.73
	08/05/11	NM	95.47	91.60	3.87	3,040.96
	08/15/12	NM	95.75	92.25	3.50	3,040.41
	01/30/13	NM	94.64	91.71	2.93	3,041.09
	07/14/14	NM	94.63	91.91	2.72	3,040.94
	01/12/15	NM	94.32	92.11	2.21	3,040.87
	07/14/15	NM	94.05	93.11	0.94	3,040.19
3,135.26	01/25/16	NM	93.91	91.94	1.97	3,042.83
	07/20/16	NM	94.03	91.99	2.04	3,042.76
44-J-WW						
3,135.79	08/05/11	NM	93.65	NA	NA	3,042.14
	08/15/12	NM	93.91	NA	NA	3,041.88
	01/30/13	NM	93.62	NA	NA	3,042.17
	01/12/15	NM	93.74	NA	NA	3,042.05
	07/14/15	NM	93.46	NA	NA	3,042.33
	01/25/16	NM	93.47	NA	NA	3,042.32
	07/20/16	NM	93.54	NA	NA	3,042.25
45-EE-WW						
3,144.94	07/07/08	NM	94.97	NA	NA	3,049.97
	09/15/14	105.00	88.69	NA	NA	3,056.25
45-ER-WW						
3,113.82	07/07/08	NM	91.96	NA	NA	3,021.86
	01/29/14	106.33	89.23	NA	NA	3,024.59
	07/14/15	NM	89.17	NA	NA	3,024.65
45-F-WW						
3,216.88	NA	NM	NM	NA	NA	NA
45-G-WW						
3,125.80	12/03/08	111.20	94.10	NA	NA	3,031.70
	11/17/11	105.00	93.63	NA	NA	3,032.17
	09/15/14	105.76	93.84	NA	NA	3,031.96
	07/14/15	NM	96.41	NA	NA	3,029.39
58-A-WW						
3,100.29	04/18/13	NM	80.90	NA	NA	3,019.39
	07/14/15	NM	80.80	NA	NA	3,019.49
58-B-WW						
3,105.94	12/03/09	NM	85.40	NA	NA	3,020.54
	07/07/08	NM	89.98	NA	NA	3,015.96
	08/13/09	NM	92.52	NA	NA	3,013.42
	07/14/15	NM	80.80	NA	NA	3,025.14

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
58-BB-WW						
3,107.17	07/07/08	NM	87.94	NA	NA	3,019.23
	08/13/09	NM	89.28	NA	NA	3,017.89
	06/18/11	112.00	84.97	NA	NA	3,022.20
	05/16/12	106.85	85.62	NA	NA	3,021.55
58-C-WW						
3,112.13	08/13/09	NM	89.32	NA	NA	3,022.81
	08/16/12	109.50	89.30	NA	NA	3,022.83
58-D-WW						
NM	01/29/14	103.55	88.71	NA	NA	NA
Monitor Wells						
43-K-1-MW						
NM	02/28/07	NM	94.85	NA	NA	NA
	01/22/08	112.95	95.26	NA	NA	NA
	07/07/08	NM	95.33	NA	NA	NA
	08/26/09	114.28	95.69	NA	NA	NA
	01/28/09	112.95	95.32	NA	NA	NA
	08/16/10	NM	95.40	NA	NA	NA
	02/11/11	112.00	95.45	NA	NA	NA
	08/02/11	112.91	94.79	NA	NA	NA
	01/30/13	112.90	95.23	NA	NA	NA
	01/13/14	112.96	92.33	NA	NA	NA
	07/14/14	NM	95.29	NA	NA	NA
	01/12/15	NM	95.21	NA	NA	NA
	07/14/15	NM	95.00	NA	NA	NA
	01/25/16	116.47	94.90	NA	NA	NA
	07/20/16	NM	94.87	NA	NA	NA
	01/11/17	NM	94.82	NA	NA	NA
	07/13/17	NM	95.00	NA	NA	NA
	01/12/18	NM	94.61	NA	NA	NA
	07/02/18	NM	94.47	NA	NA	NA
44-I-1-MW						
3,133.50	06/13/06	108.25	93.55	NA	NA	3,039.95
	08/15/06	110.00	96.85	NA	NA	3,036.65
	09/13/06	106.38	96.91	NA	NA	3,036.59
	09/20/06	110.00	96.72	NA	NA	3,036.78
	10/04/06	110.00	96.94	NA	NA	3,036.56
	12/08/06	111.05	97.09	NA	NA	3,036.41
	02/13/07	108.25	96.85	NA	NA	3,036.65
	02/28/07	NM	96.85	NA	NA	3,036.65
	07/30/07	108.25	96.88	NA	NA	3,036.62
	01/22/08	108.25	97.05	NA	NA	3,036.45
	07/09/08	108.25	97.13	NA	NA	3,036.37
	01/28/09	108.25	97.46	NA	NA	3,036.04
	08/27/09	106.20	97.57	NA	NA	3,035.93
	02/19/10	NM	97.31	NA	NA	3,036.19
	08/16/10	NM	97.30	NA	NA	3,036.20
	02/11/11	NM	96.68	NA	NA	3,036.82
	08/02/11	106.70	96.17	NA	NA	3,037.33
	08/15/12	106.65	96.21	NA	NA	3,037.29
	01/30/13	106.26	95.97	NA	NA	3,037.53
	07/30/13	106.65	96.18	NA	NA	3,037.32
	01/13/14	106.65	96.21	NA	NA	3,037.29
	07/14/14	111.17	95.85	NA	NA	3,037.65
	01/12/15	NM	96.27	NA	NA	3,037.23
	07/14/15	NM	95.91	NA	NA	3,037.59
3,138.93	01/25/16	106.94	95.96	NA	NA	3,042.97
	07/20/16	NM	96.10	NA	NA	3,042.83
	01/12/17	NM	95.84	NA	NA	3,043.09
	07/13/17	NM	96.03	NA	NA	3,042.90
	01/12/18	NM	95.64	NA	NA	3,043.29
	07/02/18	NM	95.94	NA	NA	3,042.99

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
44-J-1-MW						
3,134.50	06/13/06	111.04	96.31	NA	NA	3,038.19
	07/13/06	111.04	96.38	NA	NA	3,038.12
	08/15/06	111.00	96.53	NA	NA	3,037.97
	09/13/06	110.00	96.54	NA	NA	3,037.96
	09/20/06	111.00	96.40	NA	NA	3,038.10
	10/04/06	111.00	96.64	NA	NA	3,037.86
	12/08/06	111.97	97.41	NA	NA	3,037.09
	02/13/07	111.04	96.39	NA	NA	3,038.11
	02/28/07	NM	96.39	NA	NA	3,038.11
	07/30/07	111.04	96.51	NA	NA	3,037.99
	01/22/08	111.04	96.86	NA	NA	3,037.64
	07/09/08	111.04	96.90	NA	NA	3,037.60
	01/28/09	111.04	97.21	NA	NA	3,037.29
	08/28/09	110.40	97.27	NA	NA	3,037.23
	08/16/10	NM	96.82	NA	NA	3,037.68
	02/11/11	NM	96.42	NA	NA	3,038.08
	08/02/11	110.72	95.90	NA	NA	3,038.60
	08/15/12	110.04	96.03	NA	NA	3,038.47
	01/30/13	110.69	95.79	NA	NA	3,038.71
	07/30/13	110.80	95.92	NA	NA	3,038.58
	01/13/14	110.81	95.96	NA	NA	3,038.54
	07/14/14	110.76	95.91	NA	NA	3,038.59
	01/12/15	NM	96.01	NA	NA	3,038.49
	01/25/16	NM	95.72	NA	NA	3,038.78
	07/20/16	NM	95.85	NA	NA	3,038.65
	01/12/17	NM	95.60	NA	NA	3,038.90
	07/13/17	NM	95.80	NA	NA	3,038.70
	01/12/18	NM	95.41	NA	NA	3,039.09
	07/02/18	NM	95.70	NA	NA	3,038.80
44-J-2-MW						
3,135.30	06/13/06	109.87	91.83	NA	NA	3,043.47
	07/13/06	109.87	94.82	NA	NA	3,040.48
	08/15/06	110.00	94.97	NA	NA	3,040.33
	09/13/06	110.00	95.01	NA	NA	3,040.29
	09/20/06	110.00	94.97	NA	NA	3,040.33
	10/04/06	110.00	96.56	NA	NA	3,038.74
	12/08/06	114.32	95.14	NA	NA	3,040.16
	02/13/07	109.87	94.68	NA	NA	3,040.62
	02/28/07	NM	94.68	NA	NA	3,040.62
	07/30/07	109.87	94.82	NA	NA	3,040.48
	01/22/08	109.87	95.04	NA	NA	3,040.26
	07/09/08	109.87	95.10	NA	NA	3,040.20
	01/28/09	109.87	95.29	NA	NA	3,040.01
	08/28/09	109.00	95.37	NA	NA	3,039.93
	02/19/10	NM	94.56	NA	NA	3,040.74
	08/16/10	NM	95.04	NA	NA	3,040.26
	02/11/11	NM	94.99	NA	NA	3,040.31
	08/02/11	108.75	94.48	NA	NA	3,040.82
	08/15/12	108.80	94.99	NA	NA	3,040.31
	01/30/13	108.90	94.57	NA	NA	3,040.73
	07/30/13	109.00	94.61	NA	NA	3,040.69
	01/13/14	109.03	94.56	NA	NA	3,040.74
	07/14/14	109.02	94.65	NA	NA	3,040.65
	01/12/15	NM	94.68	NA	NA	3,040.62
	07/14/15	NM	94.43	NA	NA	3,040.87
	01/25/16	109.01	94.39	NA	NA	3,040.91
	07/20/16	NM	94.45	NA	NA	3,040.85
	01/12/17	NM	94.30	NA	NA	3,041.00
	07/13/17	NM	94.48	NA	NA	3,040.82
	01/12/18	NM	94.15	NA	NA	3,041.15
	07/02/18	NM	94.31	NA	NA	3,040.99

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
44-J-3-MW						
3,135.25	07/13/06	113.00	96.77	NA	NA	3,038.48
	08/07/06	113.00	96.94	NA	NA	3,038.31
	08/15/06	113.00	96.98	NA	NA	3,038.27
	09/13/06	113.00	97.01	NA	NA	3,038.24
	09/20/06	113.00	95.96	NA	NA	3,039.29
	10/04/06	113.00	97.10	NA	NA	3,038.15
	12/08/06	120.40	97.04	NA	NA	3,038.21
	01/22/08	114.55	97.63	NA	NA	3,037.62
	08/28/09	114.60	97.97	NA	NA	3,037.28
	02/19/10	NM	97.21	NA	NA	3,038.04
	08/16/10	NM	97.20	NA	NA	3,038.05
	02/11/11	110.00	96.74	NA	NA	3,038.51
	08/02/11	114.71	96.27	NA	NA	3,038.98
	01/30/13	114.83	96.17	NA	NA	3,039.08
	07/30/13	114.55	96.22	NA	NA	3,039.03
	01/13/14	114.55	96.25	NA	NA	3,039.00
	07/14/14	114.51	96.23	NA	NA	3,039.02
	01/12/15	NM	96.30	NA	NA	3,038.95
	07/14/15	NM	96.01	NA	NA	3,039.24
3,140.19	01/25/16	114.59	96.02	NA	NA	3,044.17
	07/20/16	NM	96.03	NA	NA	3,044.16
	01/13/17	NM	95.94	NA	NA	3,044.25
	07/13/17	NM	96.05	NA	NA	3,044.14
	01/12/18	NM	95.72	NA	NA	3,044.47
	07/02/18	NM	95.87	NA	NA	3,044.32
44-J-4-MW						
3,133.69	07/13/06	111.00	95.79	NA	NA	3,037.90
	08/07/06	111.00	95.97	NA	NA	3,037.72
	08/15/06	111.00	96.02	NA	NA	3,037.67
	09/13/06	111.00	96.04	NA	NA	3,037.65
	09/20/06	111.00	96.00	NA	NA	3,037.69
	10/04/06	111.00	96.11	NA	NA	3,037.58
	12/08/06	115.05	96.09	NA	NA	3,037.60
	01/22/08	113.40	96.77	NA	NA	3,036.92
	08/27/09	113.20	97.09	NA	NA	3,036.60
	02/19/10	NM	96.26	NA	NA	3,037.43
	08/16/10	NM	96.23	NA	NA	3,037.46
	02/11/11	110.00	95.74	NA	NA	3,037.95
	08/02/11	113.43	95.22	NA	NA	3,038.47
	01/30/13	113.25	95.14	NA	NA	3,038.55
	07/30/13	112.95	95.19	NA	NA	3,038.50
	01/13/14	112.93	95.22	NA	NA	3,038.47
	07/14/14	112.94	95.21	NA	NA	3,038.48
	01/12/15	NM	95.25	NA	NA	3,038.44
	07/14/15	NM	94.98	NA	NA	3,038.71
	01/25/16	112.98	94.98	NA	NA	3,038.71
	07/20/16	NM	95.03	NA	NA	3,038.66
	01/12/17	NM	94.92	NA	NA	3,038.77
	07/13/17	NM	95.03	NA	NA	3,038.66
	01/12/18	NM	94.71	NA	NA	3,038.98
	07/02/18	NM	94.87	NA	NA	3,038.82

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
44-J-5-MW						
3,134.75	06/13/06	110.00	96.83	NA	NA	3,037.92
	07/13/06	110.00	96.83	NA	NA	3,037.92
	08/07/06	110.00	97.00	NA	NA	3,037.75
	08/15/06	110.00	97.01	NA	NA	3,037.74
	09/13/06	110.00	97.05	NA	NA	3,037.70
	09/20/06	110.00	97.02	NA	NA	3,037.73
	10/04/06	110.00	97.13	NA	NA	3,037.62
	12/08/06	117.61	97.13	NA	NA	3,037.62
	01/22/08	113.70	97.53	NA	NA	3,037.22
	08/27/09	113.60	97.88	NA	NA	3,036.87
	08/16/10	NM	97.23	NA	NA	3,037.52
	02/11/11	NM	96.84	NA	NA	3,037.91
	08/02/11	113.71	96.32	NA	NA	3,038.43
	01/30/13	113.70	96.23	NA	NA	3,038.52
	07/30/13	113.23	96.30	NA	NA	3,038.45
	01/13/14	113.25	96.33	NA	NA	3,038.42
	07/14/14	113.20	96.30	NA	NA	3,038.45
	01/12/15	NM	96.38	NA	NA	3,038.37
	07/14/15	NM	96.10	NA	NA	3,038.65
	01/25/16	113.26	96.10	NA	NA	3,038.65
	07/20/16	NM	96.14	NA	NA	3,038.61
	01/12/17	NM	96.02	NA	NA	3,038.73
	07/13/17	NM	96.16	NA	NA	3,038.59
	01/12/18	NM	95.80	NA	NA	3,038.95
	07/02/18	NM	95.98	NA	NA	3,038.77
45-E-1-MW						
NM	09/12/06	NM	88.92	NA	NA	NA
	12/08/06	105.50	89.15	NA	NA	NA
	02/13/07	107.06	88.51	NA	NA	NA
	02/28/07	NM	88.51	NA	NA	NA
	07/30/07	107.06	88.95	NA	NA	NA
	01/22/08	107.06	90.04	NA	NA	NA
	07/09/08	107.06	89.31	NA	NA	NA
	01/28/09	107.06	89.31	NA	NA	NA
	08/27/09	102.95	89.72	NA	NA	NA
	08/16/10	NM	90.37	NA	NA	NA
	02/11/11	NM	90.36	NA	NA	NA
	08/02/11	103.00	89.70	NA	NA	NA
	01/25/16	103.31	90.58	NA	NA	NA
	07/20/16	NM	90.65	NA	NA	NA
	01/12/17	NM	90.20	NA	NA	NA
	07/13/17	NM	89.96	NA	NA	NA
	01/12/18	NM	88.74	NA	NA	NA
	07/02/18	NM	88.37	NA	NA	NA
45-E-2-MW						
NM	09/12/06	NM	81.36	NA	NA	NA
	12/08/06	104.00	86.58	NA	NA	NA
	02/13/07	109.28	85.82	NA	NA	NA
	02/28/07	NM	85.82	NA	NA	NA
	07/30/07	109.28	86.49	NA	NA	NA
	01/22/08	109.28	86.58	NA	NA	NA
	07/09/08	109.28	86.86	NA	NA	NA
	01/28/09	109.28	86.79	NA	NA	NA
	08/26/09	104.20	87.28	NA	NA	NA
	08/16/10	NM	87.84	NA	NA	NA
	02/11/11	NM	88.03	NA	NA	NA
	08/02/11	104.25	87.21	NA	NA	NA
	08/15/12	104.23	87.82	NA	NA	NA
	01/25/16	104.48	88.34	NA	NA	NA
	07/20/16	NM	88.33	NA	NA	NA
	01/12/17	NM	87.93	NA	NA	NA
	07/13/17	NM	87.62	NA	NA	NA
	01/12/18	NM	86.23	NA	NA	NA
	07/02/18	NM	88.85	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
45-E-3-MW						
NM	02/13/07	107.95	88.68	NA	NA	NA
	02/28/07	NM	88.68	NA	NA	NA
	07/26/07	107.95	89.30	NA	NA	NA
	01/22/08	107.95	89.54	NA	NA	NA
	07/08/08	107.95	89.70	NA	NA	NA
	01/28/06	107.95	89.70	NA	NA	NA
	08/26/09	110.00	90.06	NA	NA	NA
	08/16/10	NM	90.63	NA	NA	NA
	02/11/11	107.00	90.74	NA	NA	NA
	08/02/11	107.91	90.19	NA	NA	NA
	07/20/16	NM	91.05	NA	NA	NA
	01/11/17	NM	90.50	NA	NA	NA
	07/13/17	NM	90.37	NA	NA	NA
	01/12/18	NM	89.35	NA	NA	NA
	07/02/18	NM	88.75	NA	NA	NA
45-F-1-MW						
NM	06/13/06	108.19	90.99	NA	NA	NA
	09/12/06	NM	90.15	NA	NA	NA
	12/08/06	107.40	90.34	NA	NA	NA
	02/13/07	108.19	90.22	NA	NA	NA
	02/28/07	NM	90.02	NA	NA	NA
	07/30/07	108.19	90.22	NA	NA	NA
	01/22/08	108.19	90.52	NA	NA	NA
	07/09/08	108.19	90.63	NA	NA	NA
	01/28/09	108.19	90.81	NA	NA	NA
	08/27/09	106.80	90.93	NA	NA	NA
	08/16/10	NM	91.41	NA	NA	NA
	02/11/11	NM	91.52	NA	NA	NA
	08/02/11	107.03	91.15	NA	NA	NA
	08/15/12	108.02	91.40	NA	NA	NA
	01/30/13	106.82	91.29	NA	NA	NA
	07/30/13	107.90	91.70	NA	NA	NA
	01/14/13	107.94	91.71	NA	NA	NA
	07/14/14	107.87	91.53	NA	NA	NA
	01/12/15	NM	91.78	NA	NA	NA
	07/14/15	NM	91.62	NA	NA	NA
	01/25/16	107.90	91.72	NA	NA	NA
	07/20/16	NM	91.56	NA	NA	NA
	01/12/17	NM	91.40	NA	NA	NA
	07/13/17	NM	90.96	NA	NA	NA
	01/12/18	NM	90.44	NA	NA	NA
	07/02/18	NM	90.14	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
45-FF-MW						
3,122.70	06/13/06	111.19	90.57	NA	NA	3,032.13
	09/12/06	NM	90.77	NA	NA	3,031.93
	12/08/06	114.00	90.94	NA	NA	3,031.76
	02/13/07	111.19	90.58	NA	NA	3,032.12
	02/28/07	NM	90.58	NA	NA	3,032.12
	07/30/07	111.19	90.81	NA	NA	3,031.89
	01/22/08	111.19	91.16	NA	NA	3,031.54
	07/09/08	111.19	91.22	NA	NA	3,031.48
	01/28/09	111.19	91.16	NA	NA	3,031.54
	08/27/09	107.50	91.54	NA	NA	3,031.16
	08/16/10	NM	92.01	NA	NA	3,030.69
	02/11/11	NM	92.19	NA	NA	3,030.51
	08/02/11	111.11	91.71	NA	NA	3,030.99
	01/30/13	110.91	91.92	NA	NA	3,030.78
	07/30/13	110.50	92.30	NA	NA	3,030.40
	01/13/14	110.51	92.33	NA	NA	3,030.37
	07/14/14	110.48	92.02	NA	NA	3,030.68
	01/12/15	NM	92.41	NA	NA	3,030.29
	07/14/15	NM	92.30	NA	NA	3,030.40
	01/25/16	110.94	92.36	NA	NA	3,030.34
	07/20/16	NM	92.16	NA	NA	3,030.54
	01/12/17	NM	91.96	NA	NA	3,030.74
	07/13/17	NM	91.55	NA	NA	3,031.15
	01/12/18	NM	90.90	NA	NA	3,031.80
	07/02/18	NM	90.54	NA	NA	3,032.16
58-B-1-MW						
3,100.59	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	87.12	NA	NA	3,013.47
	12/08/06	106.20	87.06	NA	NA	3,013.53
	02/13/07	105.50	87.02	NA	NA	3,013.57
	02/28/07	NM	87.02	NA	NA	3,013.57
	07/26/07	105.50	87.37	NA	NA	3,013.22
	01/22/08	105.50	87.79	NA	NA	3,012.80
	07/08/08	105.50	87.67	NA	NA	3,012.92
	01/28/09	104.79	87.67	NA	NA	3,012.92
	08/26/09	104.80	87.77	NA	NA	3,012.82
	08/16/10	NM	87.88	NA	NA	3,012.71
	02/11/11	NM	87.43	NA	NA	3,013.16
	08/05/11	104.55	87.00	NA	NA	3,013.59
	08/15/12	104.59	88.12	NA	NA	3,012.47
	01/30/13	107.53	87.76	NA	NA	3,012.83
	07/30/13	104.50	88.56	NA	NA	3,012.03
	01/13/14	104.56	88.60	NA	NA	3,011.99
	07/14/14	104.47	87.92	NA	NA	3,012.67
	01/12/15	NM	88.38	NA	NA	3,012.21
	07/22/16	NM	87.70	NA	NA	3,012.89
	01/13/17	NM	87.20	NA	NA	3,013.39
	07/13/17	NM	86.71	NA	NA	3,013.88
	01/12/18	NM	85.34	NA	NA	3,015.25
	07/02/18	NM	86.12	NA	NA	3,014.47

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
58-B-2-MW						
3,111.91	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	85.80	NA	NA	3,026.11
	12/08/06	NM	85.60	NA	NA	3,026.31
	02/13/07	105.45	85.61	NA	NA	3,026.30
	02/28/07	NM	85.61	NA	NA	3,026.30
	07/26/07	105.45	85.88	NA	NA	3,026.03
	01/22/08	105.45	86.28	NA	NA	3,025.63
	07/08/08	105.45	86.16	NA	NA	3,025.75
	01/28/09	105.45	86.23	NA	NA	3,025.68
	08/26/09	104.50	86.33	NA	NA	3,025.58
	08/16/10	NM	86.42	NA	NA	3,025.49
	02/11/11	NM	86.11	NA	NA	3,025.80
	08/02/11	105.12	85.75	NA	NA	3,026.16
	08/15/12	105.43	86.70	NA	NA	3,025.21
	07/14/15	NM	88.61	NA	NA	3,023.30
	01/25/16	105.08	85.92	NA	NA	3,025.99
	07/22/16	NM	86.40	NA	NA	3,025.51
	01/13/17	NM	85.92	NA	NA	3,025.99
	07/13/17	NM	85.55	NA	NA	3,026.36
	01/12/18	NM	86.47	NA	NA	3,025.44
	07/02/18	NM	85.10	NA	NA	3,026.81
58-B-3-MW						
3,108.46	02/13/07	100.75	89.48	NA	NA	3,018.98
	02/28/07	NM	89.48	NA	NA	3,018.98
	07/26/07	100.75	89.39	NA	NA	3,019.07
	01/22/08	100.75	89.71	NA	NA	3,018.75
	07/08/08	100.75	89.75	NA	NA	3,018.71
	01/28/09	100.75	89.81	NA	NA	3,018.65
	08/26/09	104.00	89.88	NA	NA	3,018.58
	08/16/10	NM	90.05	NA	NA	3,018.41
	02/11/11	102.00	90.02	NA	NA	3,018.44
	08/02/11	100.68	89.97	NA	NA	3,018.49
	08/15/12	100.73	90.11	NA	NA	3,018.35
	01/30/13	100.89	90.16	NA	NA	3,018.30
	07/30/13	100.80	90.24	NA	NA	3,018.22
	01/13/14	100.80	90.33	NA	NA	3,018.13
	07/14/14	100.79	90.39	NA	NA	3,018.07
	01/12/15	NM	89.80	NA	NA	3,018.66
	07/14/15	NM	90.06	NA	NA	3,018.40
	01/25/16	100.78	90.08	NA	NA	3,018.38
	07/22/16	NM	90.14	NA	NA	3,018.32
	01/10/17	NM	90.02	NA	NA	3,018.44
	07/13/17	NM	89.88	NA	NA	3,018.58
	01/12/18	NM	89.78	NA	NA	3,018.68
	07/02/18	NM	89.62	NA	NA	3,018.84
MW-2						
3,204.56	8/7/2015	NM	104.07	NA	NA	3,100.49
	1/25/2016	109.14	109.05	NA	NA	3,095.51
	7/21/2016	NM	109.10	NA	NA	3,095.46
	1/12/2017	NM	109.20	NA	NA	3,095.36
	4/10/2017	109.71	DRY	NA	NA	DRY
	7/13/2017	NM	109.14	NA	NA	3,095.42
	10/3/2017	109.33	DRY	NA	NA	DRY
	1/12/2018	109.15	DRY	NA	NA	DRY
	4/2/2018	109.15	DRY	NA	NA	DRY
	07/02/18	109.15	DRY	NA	NA	DRY
	10/1/2018	109.58	DRY	NA	NA	DRY

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-3						
3,199.51	8/7/2015	NM	112.88	NA	NA	3,086.63
	1/25/2016	119.30	112.95	NA	NA	3,086.56
	7/21/2016	NM	113.02	NA	NA	3,086.49
	1/11/2017	NM	112.95	NA	NA	3,086.56
	4/10/2017	NM	113.17	NA	NA	3,086.34
	7/13/2017	NM	113.04	NA	NA	3,086.47
	10/3/2017	NM	113.11	NA	NA	3,086.40
	1/12/2018	NM	113.04	NA	NA	3,086.47
	4/2/2018	NM	113.20	NA	NA	3,086.31
	07/02/18	NM	113.09	NA	NA	3,086.42
	10/1/2018	NM	113.14	NA	NA	3,086.37
MW-4						
3,189.69	8/7/2015	NM	115.53	NA	NA	3,074.16
	1/25/2016	116.91	115.60	NA	NA	3,074.09
	7/21/2016	NM	115.65	NA	NA	3,074.04
	1/11/2017	NM	115.55	NA	NA	3,074.14
	4/10/2017	117.74	115.67	NA	NA	3,074.02
	7/13/2017	NM	115.64	NA	NA	3,074.05
	10/3/2017	118.13	115.65	NA	NA	3,074.04
	1/12/2018	NM	115.60	NA	NA	3,074.09
	4/2/2018	NM	115.70	NA	NA	3,073.99
	07/02/18	NM	115.61	NA	NA	3,074.08
	10/1/2018	NM	115.72	NA	NA	3,073.97
MW-5						
3,174.43	8/7/2015	NM	102.74	NA	NA	3,071.69
	1/25/2016	116.91	102.78	NA	NA	3,071.65
	7/21/2016	NM	102.84	NA	NA	3,071.59
	1/11/2017	NM	102.80	NA	NA	3,071.63
	4/10/2017	116.95	102.85	NA	NA	3,071.58
	7/13/2017	NM	102.88	NA	NA	3,071.55
	10/3/2017	NM	102.91	NA	NA	3,071.52
	1/12/2018	NM	102.95	NA	NA	3,071.48
	4/2/2018	NM	102.94	NA	NA	3,071.49
	07/02/18	NM	102.93	NA	NA	3,071.50
	10/1/2018	NM	103.00	NA	NA	3,071.43
MW-6						
3,165.25	8/7/2015	NM	93.97	NA	NA	3,071.28
	1/25/2016	130.94	94.21	NA	NA	3,071.04
	7/21/2016	NM	94.28	NA	NA	3,070.97
	1/11/2017	NM	94.01	NA	NA	3,071.24
	4/10/2017	130.83	94.21	NA	NA	3,071.04
	7/13/2017	NM	94.11	NA	NA	3,071.14
	10/3/2017	NM	94.14	NA	NA	3,071.11
	1/12/2018	NM	93.80	NA	NA	3,071.45
	4/2/2018	NM	94.18	NA	NA	3,071.07
	07/02/18	NM	93.89	NA	NA	3,071.36
	10/1/2018	NM	93.90	NA	NA	3,071.35
MW-7						
3,132.14	8/7/2015	NM	112.10	NA	NA	3,020.04
	1/25/2016	117.20	112.77	NA	NA	3,019.37
	7/21/2016	NM	114.50	NA	NA	3,017.64
	1/11/2017	NM	115.92	NA	NA	3,016.22
	4/10/2017	116.73	DRY	NA	NA	DRY
	7/13/2017	116.55	DRY	NA	NA	DRY
	10/3/2017	116.46	DRY	NA	NA	DRY
	1/12/2018	NM	DRY	NA	NA	DRY
	4/2/2018	116.66	DRY	NA	NA	DRY
	07/02/18	116.70	DRY	NA	NA	DRY
	10/1/2018	116.61	DRY	NA	NA	DRY

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-8						
3,107.34	8/7/2015	NM	85.03	NA	NA	3,022.31
	1/25/2016	110.98	85.46	NA	NA	3,021.88
	7/21/2016	NM	85.10	NA	NA	3,022.24
	1/13/2017	NM	84.95	NA	NA	3,022.39
	4/7/2017	110.98	85.00	NA	NA	3,022.34
	7/13/2017	NM	84.68	NA	NA	3,022.66
	10/3/2017	NM	84.86	NA	NA	3,022.48
	1/12/2018	NM	84.75	NA	NA	3,022.59
	4/2/2018	NM	85.20	NA	NA	3,022.14
	07/02/18	NM	85.09	NA	NA	3,022.25
	10/1/2018	NM	84.83	NA	NA	3,022.51
MW-9						
3,103.82	8/7/2015	NM	85.68	NA	NA	3,018.14
	1/25/2016	105.30	85.87	NA	NA	3,017.95
	7/21/2016	NM	85.80	NA	NA	3,018.02
	1/13/2017	NM	85.76	NA	NA	3,018.06
	4/7/2017	105.28	85.65	NA	NA	3,018.17
	7/13/2017	NM	85.50	NA	NA	3,018.32
	10/3/2017	NM	85.53	NA	NA	3,018.29
	1/12/2018	NM	85.38	NA	NA	3,018.44
	4/2/2018	NM	85.73	NA	NA	3,018.09
	07/02/18	NM	85.24	NA	NA	3,018.58
	10/1/2018	NM	85.24	NA	NA	3,018.58
MW-10						
3,139.71	8/7/2015	NM	97.21	NA	NA	3,042.50
	1/25/2016	116.50	97.33	NA	NA	3,042.38
	7/20/2016	NM	97.18	NA	NA	3,042.53
	1/12/2017	NM	97.21	NA	NA	3,042.50
	4/7/2017	116.36	97.22	NA	NA	3,042.49
	7/13/2017	NM	97.12	NA	NA	3,042.59
	10/3/2017	NM	97.35	NA	NA	3,042.36
	1/12/2018	NM	97.30	NA	NA	3,042.41
	4/2/2018	NM	97.41	NA	NA	3,042.30
	07/02/18	NM	97.24	NA	NA	3,042.47
	10/1/2018	NM	97.35	NA	NA	3,042.36
MW-11						
3,156.65	8/7/2015	NM	102.00	NA	NA	3,054.65
	1/25/2016	110.23	102.08	NA	NA	3,054.57
	7/21/2016	NM	102.16	NA	NA	3,054.49
	1/11/2017	NM	102.10	NA	NA	3,054.55
	4/10/2017	110.02	102.22	NA	NA	3,054.43
	7/13/2017	NM	102.22	NA	NA	3,054.43
	10/3/2017	NM	102.28	NA	NA	3,054.37
	1/12/2018	NM	102.18	NA	NA	3,054.47
	4/2/2018	NM	102.39	NA	NA	3,054.26
	07/02/18	NM	102.28	NA	NA	3,054.37
	10/1/2018	NM	102.35	NA	NA	3,054.30
MW-12						
3,151.33	8/7/2015	NM	94.70	NA	NA	3,056.63
	1/25/2016	114.18	94.68	NA	NA	3,056.65
	7/20/2016	NM	94.69	NA	NA	3,056.64
	1/11/2017	NM	94.70	NA	NA	3,056.63
	4/7/2017	114.15	94.66	NA	NA	3,056.67
	7/13/2017	NM	94.60	NA	NA	3,056.73
	10/3/2017	NM	94.87	NA	NA	3,056.46
	1/12/2018	NM	94.66	NA	NA	3,056.67
	4/2/2018	NM	94.74	NA	NA	3,056.59
	07/02/18	NM	94.71	NA	NA	3,056.62
	10/1/2018	NM	94.87	NA	NA	3,056.46

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-13						
3,168.41	8/7/2015	NM	98.61	NA	NA	3,069.80
	1/25/2016	127.85	98.88	NA	NA	3,069.53
	7/21/2016	NM	98.78	NA	NA	3,069.63
	1/11/2017	NM	98.49	NA	NA	3,069.92
	4/10/2017	127.90	98.70	NA	NA	3,069.71
	7/13/2017	NM	98.60	NA	NA	3,069.81
	10/3/2017	NM	98.70	NA	NA	3,069.71
	1/12/2018	NM	98.61	NA	NA	3,069.80
	4/2/2018	NM	98.80	NA	NA	3,069.61
	07/02/18	NM	98.74	NA	NA	3,069.67
	10/1/2018	NM	98.88	NA	NA	3,069.53
MW-14						
3,182.69	8/7/2015	NM	106.69	NA	NA	3,076.00
	1/25/2016	124.62	106.78	NA	NA	3,075.91
	7/21/2016	NM	106.90	NA	NA	3,075.79
	1/11/2017	NM	106.78	NA	NA	3,075.91
	4/10/2017	124.48	107.01	NA	NA	3,075.68
	7/13/2017	NM	106.88	NA	NA	3,075.81
	10/3/2017	NM	106.95	NA	NA	3,075.74
	1/12/2018	NM	106.85	NA	NA	3,075.84
	4/2/2018	NM	107.00	NA	NA	3,075.69
	07/02/18	NM	106.91	NA	NA	3,075.78
	10/1/2018	NM	106.98	NA	NA	3,075.71
MW-15						
3,184.55	8/7/2015	NM	104.29	NA	NA	3,080.26
	1/25/2016	126.36	104.56	NA	NA	3,079.99
	7/21/2016	NM	104.60	NA	NA	3,079.95
	1/11/2017	NM	104.45	NA	NA	3,080.10
	4/10/2017	NM	104.76	NA	NA	3,079.79
	7/13/2017	NM	104.52	NA	NA	3,080.03
	10/3/2017	NM	104.66	NA	NA	3,079.89
	1/12/2018	NM	104.45	NA	NA	3,080.10
	4/2/2018	NM	104.63	NA	NA	3,079.92
	07/02/18	NM	104.56	NA	NA	3,079.99
	10/1/2018	NM	104.57	NA	NA	3,079.98
MW-16						
3,167.93	8/7/2015	NM	99.76	NA	NA	3,068.17
	1/25/2016	119.30	99.86	NA	NA	3,068.07
	7/21/2016	NM	100.02	NA	NA	3,067.91
	1/11/2017	NM	99.88	NA	NA	3,068.05
	4/10/2017	119.07	100.03	NA	NA	3,067.90
	7/13/2017	NM	99.94	NA	NA	3,067.99
	10/3/2017	NM	100.01	NA	NA	3,067.92
	1/12/2018	NM	99.83	NA	NA	3,068.10
	4/2/2018	NM	99.97	NA	NA	3,067.96
	07/02/18	NM	99.92	NA	NA	3,068.01
	10/1/2018	NM	99.93	NA	NA	3,068.00
MW-17						
3,147.44	8/7/2015	NM	83.74	NA	NA	3,063.70
	1/25/2016	118.27	84.18	NA	NA	3,063.26
	7/20/2016	NM	82.79	NA	NA	3,064.65
	1/11/2017	NM	83.75	NA	NA	3,063.69
	4/10/2017	118.26	84.27	NA	NA	3,063.17
	7/13/2017	NM	84.06	NA	NA	3,063.38
	10/3/2017	NM	84.08	NA	NA	3,063.36
	1/12/2018	NM	83.79	NA	NA	3,063.65
	4/2/2018	NM	84.26	NA	NA	3,063.18
	07/02/18	NM	84.32	NA	NA	3,063.12
	10/1/2018	NM	84.41	NA	NA	3,063.03

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-18						
3,155.01	8/7/2015	NM	95.94	NA	NA	3,059.07
	1/25/2016	122.40	95.81	NA	NA	3,059.20
	7/20/2016	NM	95.91	NA	NA	3,059.10
	1/12/2017	NM	95.82	NA	NA	3,059.19
	4/7/2017	122.37	95.76	NA	NA	3,059.25
	7/13/2017	NM	95.67	NA	NA	3,059.34
	10/3/2017	NM	95.87	NA	NA	3,059.14
	1/12/2018	NM	95.72	NA	NA	3,059.29
	4/2/2018	NM	95.80	NA	NA	3,059.21
	07/02/18	NM	95.74	NA	NA	3,059.27
	10/1/2018	NM	95.90	NA	NA	3,059.11
MW-19						
3,149.90	8/7/2015	NM	99.58	NA	NA	3,050.32
	1/25/2016	115.04	99.68	NA	NA	3,050.22
	7/20/2016	NM	99.78	NA	NA	3,050.12
	1/12/2017	NM	99.68	NA	NA	3,050.22
	4/7/2017	115.03	99.78	NA	NA	3,050.12
	7/13/2017	NM	99.61	NA	NA	3,050.29
	10/3/2017	NM	99.83	NA	NA	3,050.07
	1/12/2018	NM	99.63	NA	NA	3,050.27
	4/2/2018	NM	99.69	NA	NA	3,050.21
	07/02/18	NM	99.85	NA	NA	3,050.05
	10/1/2018	NM	99.75	NA	NA	3,050.15
MW-20						
3,120.09	8/7/2015	NM	88.96	NA	NA	3,031.13
	1/25/2016	112.91	88.96	NA	NA	3,031.13
	7/20/2016	NM	89.07	NA	NA	3,031.02
	1/12/2017	NM	89.00	NA	NA	3,031.09
	4/7/2017	112.65	88.97	NA	NA	3,031.12
	7/13/2017	NM	88.76	NA	NA	3,031.33
	10/3/2017	NM	88.88	NA	NA	3,031.21
	1/12/2018	NM	88.75	NA	NA	3,031.34
	4/2/2018	NM	88.67	NA	NA	3,031.42
	07/02/18	NM	88.69	NA	NA	3,031.40
	10/1/2018	NM	88.59	NA	NA	3,031.50
MW-21						
3,159.65	7/21/2016	NM	92.31	NA	NA	3,067.34
	1/12/2017	NM	92.41	NA	NA	3,067.24
	4/10/2017	123.74	92.65	NA	NA	3,067.00
	7/13/2017	NM	92.55	NA	NA	3,067.10
	10/3/2017	NM	92.65	NA	NA	3,067.00
	1/12/2018	NM	92.47	NA	NA	3,067.18
	4/2/2018	NM	92.64	NA	NA	3,067.01
	07/02/18	NM	92.65	NA	NA	3,067.00
	10/1/2018	NM	92.74	NA	NA	3,066.91
MW-22						
3,152.50	4/10/2017	117.94	87.78	NA	NA	3,064.72
	7/13/2017	NM	87.64	NA	NA	3,064.86
	10/3/2017	NM	87.71	NA	NA	3,064.79
	1/12/2018	NM	87.50	NA	NA	3,065.00
	4/2/2018	NM	87.75	NA	NA	3,064.75
	07/02/18	NM	87.75	NA	NA	3,064.75
	10/1/2018	NM	87.85	NA	NA	3,064.65
MW-23						
3,151.66	7/21/2016	NM	87.03	NA	NA	3,064.63
	1/11/2017	NM	86.74	NA	NA	3,064.92
	4/10/2017	124.94	87.02	NA	NA	3,064.64
	7/13/2017	NM	86.86	NA	NA	3,064.80
	10/3/2017	NM	86.95	NA	NA	3,064.71
	1/12/2018	NM	86.75	NA	NA	3,064.91
	4/2/2018	NM	86.98	NA	NA	3,064.68
	07/02/18	NM	86.98	NA	NA	3,064.68
	10/1/2018	NM	87.08	NA	NA	3,064.58

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-24						
3,144.88	7/20/2016	NM	95.02	NA	NA	3,049.86
	1/12/2017	NM	95.11	NA	NA	3,049.77
	4/7/2017	115.39	95.15	NA	NA	3,049.73
	7/13/2017	NM	95.11	NA	NA	3,049.77
	10/3/2017	NM	95.33	NA	NA	3,049.55
	1/12/2018	NM	95.18	NA	NA	3,049.70
	4/2/2018	NM	95.23	NA	NA	3,049.65
	07/02/18	NM	95.12	NA	NA	3,049.76
	10/1/2018	NM	95.25	NA	NA	3,049.63
MW-25						
3,165.45	7/21/2016	NM	103.05	NA	NA	3,062.40
	1/11/2017	NM	103.00	NA	NA	3,062.45
	4/10/2017	116.81	103.26	NA	NA	3,062.19
	7/13/2017	NM	103.17	NA	NA	3,062.28
	10/3/2017	NM	103.20	NA	NA	3,062.25
	1/12/2018	NM	103.04	NA	NA	3,062.41
	4/2/2018	NM	103.50	NA	NA	3,061.95
	07/02/18	NM	103.29	NA	NA	3,062.16
	10/1/2018	NM	103.34	NA	NA	3,062.11
MW-26						
3,136.99	1/12/2017	NM	93.78	NA	NA	3,043.21
	4/7/2017	108.41	93.83	NA	NA	3,043.16
	7/13/2017	NM	93.75	NA	NA	3,043.24
	10/3/2017	NM	94.00	NA	NA	3,042.99
	1/12/2018	NM	93.76	NA	NA	3,043.23
	4/2/2018	NM	93.89	NA	NA	3,043.10
	07/02/18	NM	94.00	NA	NA	3,042.99
	10/1/2018	NM	93.91	NA	NA	3,043.08
MW-27						
3,126.99	7/20/2016	NM	91.61	NA	NA	3,035.38
	1/11/2017	NM	91.40	NA	NA	3,035.59
	4/7/2017	108.40	91.65	NA	NA	3,035.34
	7/13/2017	NM	91.60	NA	NA	3,035.39
	10/3/2017	NM	91.80	NA	NA	3,035.19
	1/12/2018	NM	91.78	NA	NA	3,035.21
	4/2/2018	NM	92.08	NA	NA	3,034.91
	07/02/18	NM	91.98	NA	NA	3,035.01
	10/1/2018	NM	92.07	NA	NA	3,034.92
MW-28						
3,093.86	1/10/2017	NM	83.60	NA	NA	3,010.26
	4/7/2017	104.02	83.74	NA	NA	3,010.12
	7/13/2017	NM	83.78	NA	NA	3,010.08
	10/3/2017	NM	83.79	NA	NA	3,010.07
	1/12/2018	NM	83.84	NA	NA	3,010.02
	4/2/2018	NM	83.84	NA	NA	3,010.02
	07/02/18	NM	83.89	NA	NA	3,009.97
	10/1/2018	NM	83.62	NA	NA	3,010.24
MW-29						
3,098.60	1/10/2017	NM	99.85	NA	NA	2,998.75
	4/7/2017	113.55	99.97	NA	NA	2,998.63
	7/13/2017	NM	100.00	NA	NA	2,998.60
	10/3/2017	NM	99.95	NA	NA	2,998.65
	1/12/2018	NM	100.08	NA	NA	2,998.52
	4/2/2018	NM	100.17	NA	NA	2,998.43
	07/02/18	NM	100.16	NA	NA	2,998.44
	10/1/2018	NM	100.11	NA	NA	2,998.49
MW-30						
3,170.95	7/13/2017	NM	103.41	NA	NA	3,067.54
	10/3/2017	NM	103.57	NA	NA	3,067.38
	1/12/2018	NM	103.19	NA	NA	3,067.76
	4/2/2018	NM	103.71	NA	NA	3,067.24
	07/02/18	NM	103.46	NA	NA	3,067.49
	10/1/2018	NM	103.58	NA	NA	3,067.37

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
MW-31						
3,145.41	7/13/2017	NM	94.50	NA	NA	3,050.91
	10/3/2017	NM	94.74	NA	NA	3,050.67
	1/12/2018	NM	94.60	NA	NA	3,050.81
	4/2/2018	NM	94.60	NA	NA	3,050.81
	07/02/18	NM	94.50	NA	NA	3,050.91
	10/1/2018	NM	94.62	NA	NA	3,050.79
NM-MW-1						
3,124.90	12/2/2015	NM	72.01	NA	NA	3,052.89
	1/25/2016	106.86	72.01	NA	NA	3,052.89
	7/22/2016	NM	71.90	NA	NA	3,053.00
	1/12/2017	NM	71.73	NA	NA	3,053.17
	4/7/2017	106.36	71.78	NA	NA	3,053.12
	7/13/2017	NM	71.67	NA	NA	3,053.23
	10/3/2017	NM	71.65	NA	NA	3,053.25
	1/12/2018	NM	71.63	NA	NA	3,053.27
	4/2/2018	NM	71.66	NA	NA	3,053.24
	07/02/18	NM	70.65	NA	NA	3,054.25
	10/1/2018	NM	71.71	NA	NA	3,053.19
NM-MW-2						
3,152.86	12/2/2015	NM	96.14	NA	NA	3,056.72
	1/25/2016	120.55	96.38	NA	NA	3,056.48
	7/22/2016	NM	96.28	NA	NA	3,056.58
	1/12/2017	NM	96.20	NA	NA	3,056.66
	4/7/2017	120.60	96.49	NA	NA	3,056.37
	7/13/2017	NM	96.25	NA	NA	3,056.61
	10/3/2017	NM	96.17	NA	NA	3,056.69
	1/12/2018	NM	96.29	NA	NA	3,056.57
	4/2/2018	NM	96.18	NA	NA	3,056.68
	07/02/18	NM	96.42	NA	NA	3,056.44
	10/1/2018	NM	96.28	NA	NA	3,056.58
NM-MW-3						
3,146.86	12/2/2015	NM	91.70	NA	NA	3,055.16
	1/25/2016	105.01	91.80	NA	NA	3,055.06
	7/22/2016	NM	91.81	NA	NA	3,055.05
	1/12/2017	NM	91.75	NA	NA	3,055.11
	4/7/2017	105.28	91.99	NA	NA	3,054.87
	7/13/2017	NM	91.92	NA	NA	3,054.94
	10/3/2017	NM	91.90	NA	NA	3,054.96
	1/12/2018	NM	91.93	NA	NA	3,054.93
	4/2/2018	NM	91.82	NA	NA	3,055.04
	07/02/18	NM	91.88	NA	NA	3,054.98
	10/1/2018	NM	91.78	NA	NA	3,055.08
NM-MW-4						
3,154.21	12/2/2015	NM	110.59	NA	NA	3,043.62
	1/25/2016	116.91	110.46	NA	NA	3,043.75
	7/22/2016	NM	110.57	NA	NA	3,043.64
	1/12/2017	NM	110.40	NA	NA	3,043.81
	4/7/2017	117.19	110.52	NA	NA	3,043.69
	7/13/2017	NM	110.50	NA	NA	3,043.71
	10/3/2017	NM	110.52	NA	NA	3,043.69
	1/12/2018	NM	110.48	NA	NA	3,043.73
	4/2/2018	NM	110.55	NA	NA	3,043.66
	07/02/18	NM	110.38	NA	NA	3,043.83
	10/1/2018	NM	110.44	NA	NA	3,043.77

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
NM-MW-5						
3,109.14	12/2/2015	NM	DRY	NA	NA	DRY
	1/25/2016	115.00	99.95	NA	NA	3,009.19
	7/22/2016	NM	99.78	NA	NA	3,009.36
	1/12/2017	NM	99.70	NA	NA	3,009.44
	4/7/2017	114.92	99.66	NA	NA	3,009.48
	7/13/2017	NM	99.80	NA	NA	3,009.34
	10/32017	NM	99.69	NA	NA	3,009.45
	1/12/2018	NM	99.80	NA	NA	3,009.34
	4/2/2018	NM	99.76	NA	NA	3,009.38
	07/02/18	NM	99.82	NA	NA	3,009.32
	10/1/2018	NM	99.89	NA	NA	3,009.25
NM-MW-6						
3,093.23	12/2/2015	NM	86.98	NA	NA	3,006.25
	1/25/2016	123.21	86.93	NA	NA	3,006.30
	7/22/2016	NM	87.10	NA	NA	3,006.13
	1/12/2017	NM	87.35	NA	NA	3,005.88
	4/7/2017	123.16	87.42	NA	NA	3,005.81
	7/13/2017	NM	87.47	NA	NA	3,005.76
	10/3/2017	NM	87.47	NA	NA	3,005.76
	1/12/2018	NM	87.57	NA	NA	3,005.66
	4/2/2018	NM	87.53	NA	NA	3,005.70
	07/02/18	NM	87.66	NA	NA	3,005.57
	10/1/2018	NM	87.70	NA	NA	3,005.53
NM-MW-7						
3,147.67	12/2/2015	NM	96.71	NA	NA	3,050.96
	1/25/2016	105.52	96.79	NA	NA	3,050.88
	7/22/2016	NM	96.91	NA	NA	3,050.76
	1/12/2017	NM	96.80	NA	NA	3,050.87
	4/7/2017	105.89	97.20	NA	NA	3,050.47
	7/13/2017	NM	97.12	NA	NA	3,050.55
	10/3/2017	NM	96.73	NA	NA	3,050.94
	1/12/2018	NM	96.40	NA	NA	3,051.27
	4/2/2018	NM	96.26	NA	NA	3,051.41
	07/02/18	NM	96.13	NA	NA	3,051.54
	10/1/2018	NM	96.07	NA	NA	3,051.60
NM-MW-8						
3,138.62	4/7/2017	108.33	98.63	NA	NA	3,039.99
	7/13/2017	NM	98.49	NA	NA	3,040.13
	10/3/2017	NM	98.42	NA	NA	3,040.20
	1/12/2018	NM	98.34	NA	NA	3,040.28
	4/2/2018	NM	98.35	NA	NA	3,040.27
	07/02/18	NM	98.22	NA	NA	3,040.40
	10/1/2018	NM	98.16	NA	NA	3,040.46
NM-MW-9						
3,118.18	4/7/2017	96.79	96.73	NA	NA	3,021.45
	7/13/2017	NM	95.58	NA	NA	3,022.60
	10/3/2017	NM	95.37	NA	NA	3,022.81
	1/12/2018	NM	94.94	NA	NA	3,023.24
	4/2/2018	NM	94.71	NA	NA	3,023.47
	07/02/18	NM	94.60	NA	NA	3,023.58
	10/1/2018	NM	94.60	NA	NA	3,023.58
NM-MW-10						
3,066.32	1/10/2017	NM	78.94	NA	NA	2,987.38
	4/7/2017	108.10	79.02	NA	NA	2,987.30
	7/13/2017	NM	79.09	NA	NA	2,987.23
	10/3/2017	NM	79.12	NA	NA	2,987.20
	1/12/2018	NM	79.15	NA	NA	2,987.17
	4/2/2018	NM	79.23	NA	NA	2,987.09
	07/02/18	NM	79.24	NA	NA	2,987.08
	10/1/2018	NM	79.32	NA	NA	2,987.00

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
NM-MW-11						
3,075.44	1/10/2017	NM	150.11	NA	NA	2,925.33
	4/7/2017	163.56	127.16	NA	NA	2,948.28
	7/13/2017	NM	107.66	NA	NA	2,967.78
	10/3/2017	NM	97.78	NA	NA	2,977.66
	1/12/2018	NM	90.89	NA	NA	2,984.55
	4/2/2018	NM	87.75	NA	NA	2,987.69
	07/02/18	NM	86.07	NA	NA	2,989.37
	10/1/2018	NM	84.80	NA	NA	2,990.64
NM-MW-12						
3,105.47	4/7/2017	98.54	96.70	NA	NA	3,008.77
	7/13/2017	NM	96.72	NA	NA	3,008.75
	10/3/2017	NM	96.69	NA	NA	3,008.78
	1/12/2018	NM	96.67	NA	NA	3,008.80
	4/2/2018	NM	96.71	NA	NA	3,008.76
	07/02/18	NM	96.68	NA	NA	3,008.79
	10/1/2018	NM	96.67	NA	NA	3,008.80
NM-MW-13						
3,051.17	4/7/2017	111.80	84.04	NA	NA	2,967.13
	7/13/2017	NM	84.05	NA	NA	2,967.12
	10/3/2017	NM	84.10	NA	NA	2,967.07
	1/12/2018	NM	84.12	NA	NA	2,967.05
	4/2/2018	NM	84.15	NA	NA	2,967.02
	07/02/18	NM	84.15	NA	NA	2,967.02
	10/1/2018	NM	84.24	NA	NA	2,966.93
Non-Remedial Wells						
Livermore						
NM	12/07/06	111.60	95.96	NA	NA	NA
	02/13/07	110.72	95.08	NA	NA	NA
	02/28/07	NM	95.08	NA	NA	NA
	07/30/07	110.72	95.71	NA	NA	NA
	07/09/08	110.72	94.89	NA	NA	NA
	01/28/09	110.81	94.81	NA	NA	NA
	08/28/09	111.11	95.08	NA	NA	NA
	02/19/10	NM	94.70	NA	NA	NA
	08/16/10	NM	94.67	NA	NA	NA
	02/11/11	NM	95.00	NA	NA	NA
	07/31/13	104.21	95.29	NA	NA	NA
	07/16/14	NM	95.85	NA	NA	NA
	01/25/16	104.23	95.20	NA	NA	NA
	07/21/16	NM	95.30	NA	NA	NA
	01/11/17	NM	95.10	NA	NA	NA
	07/13/17	NM	95.17	NA	NA	NA
	10/03/17	NM	95.27	NA	NA	NA
	01/12/18	NM	94.97	NA	NA	NA
	04/02/18	NM	94.97	NA	NA	NA
	07/02/18	NM	95.19	NA	NA	NA
	10/1/2018	NM	95.26	NA	NA	NA
Pure Water Tower						
3,154.43	06/18/11	137.00	87.30	NA	NA	3,067.13
Pure Water Well						
3,151.80	08/16/12	104.80	88.00	NA	NA	3,063.80
	08/30/13	100.50	88.35	NA	NA	3,063.45
	07/14/15	NM	88.35	NA	NA	3,063.45
RRR Ranch Windmill						
NM	08/28/09	117.05	95.05	NA	NA	NA
	07/22/16	NM	94.36	NA	NA	NA
	01/12/17	NM	94.28	NA	NA	NA
	07/13/17	99.61	94.37	NA	NA	NA
	10/03/17	NM	94.34	NA	NA	NA
	01/12/18	NM	94.24	NA	NA	NA
	04/02/18	NM	94.24	NA	NA	NA
	07/02/18	NM	94.14	NA	NA	NA
	10/1/2018	NM	94.08	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix A

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Recovery Wells						
TRAC-4						
NM	NA	NM	NM	NA	NA	NA
TRAC-8						
NM	NA	NM	NM	NA	NA	NA
Wilson Ranch Well						
NM	NA	NM	NM	NA	NA	NA

Notes:
[1] Formula for Adjusted Groundwater Elevation: TOC - Depth to Water + 0.75(LNAPL thickness).
ft = feet
NAVD = North American Vertical Datum
TOC = top of casing
LNAPL = light non-aqueous phase liquid
NM = Not Measured
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix B
Groundwater Sample Analytical Laboratory Reports

Released to Imaging: 11/21/2023 10:32:34 AM

Analytical Report 573507

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270-2017-01

22-JAN-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

22-JAN-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **573507**
Dollarhide
Project Address: Andrews County,TX and Lea County,NM

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 573507. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 573507 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 573507

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-28-W-180112	W	01-12-18 13:40		573507-001
MW-29-W-180112	W	01-12-18 13:30		573507-002
NM-MW-1-W-180112	W	01-12-18 12:00		573507-003
NM-MW-2-W-180112	W	01-12-18 11:50		573507-004
NM-MW-3-W-180112	W	01-12-18 11:40		573507-005
NM-MW-4-W-180112	W	01-12-18 11:15		573507-006
NM-MW-5-W-180112	W	01-12-18 12:10		573507-007
NM-MW-6-W-180112	W	01-12-18 12:15		573507-008
NM-MW-7-W-180112	W	01-12-18 11:05		573507-009
NM-MW-8-W-180112	W	01-12-18 11:25		573507-010
NM-MW-10-W-180112	W	01-12-18 12:25		573507-011
NM-MW-11-W-180112	W	01-12-18 12:35		573507-012
NM-MW-13-W-180112	W	01-12-18 13:00		573507-013
58-B-3-MW-W-180112	W	01-12-18 13:20		573507-014

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270-2017-01*
Work Order Number(s): *573507*

Report Date: *22-JAN-18*
Date Received: *01/15/2018*

Sample receipt non conformances and comments:

Revision to correct sample name

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 573507

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270-2017-01
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Mon Jan-15-18 09:41 am
Report Date: 22-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573507-001		573507-002		573507-003		573507-004		573507-005		573507-006	
	Field Id:	MW-28-W-180112		MW-29-W-180112		NM-MW-1-W-180112		NM-MW-2-W-180112		NM-MW-3-W-180112		NM-MW-4-W-180112	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-12-18 13:40		Jan-12-18 13:30		Jan-12-18 12:00		Jan-12-18 11:50		Jan-12-18 11:40		Jan-12-18 11:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00	
	Analyzed:	Jan-17-18 16:09		Jan-17-18 16:30		Jan-17-18 16:37		Jan-17-18 16:44		Jan-17-18 16:51		Jan-17-18 17:05	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1470	10.0	397	2.50	271	2.50	639	2.50	221	2.50	39.3	0.500
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1280	5.00	601	5.00	933	5.00	990	5.00	501	5.00	217	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 573507

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270-2017-01
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Mon Jan-15-18 09:41 am
Report Date: 22-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573507-007		573507-008		573507-009		573507-010		573507-011		573507-012	
	Field Id:	NM-MW-5-W-180112		NM-MW-6-W-180112		NM-MW-7-W-180112		NM-MW-8-W-180112		NM-MW-10-W-180112		NM-MW-11-W-180112	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-12-18 12:10		Jan-12-18 12:15		Jan-12-18 11:05		Jan-12-18 11:25		Jan-12-18 12:25		Jan-12-18 12:35	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00		Jan-17-18 12:00	
	Analyzed:	Jan-19-18 09:28		Jan-17-18 17:26		Jan-17-18 17:33		Jan-17-18 17:54		Jan-17-18 18:01		Jan-17-18 18:08	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		133	2.50	137	2.50	2110	10.0	5260	25.0	314	5.00	155	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00		Jan-15-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		893	5.00	468	5.00	2370	5.00	5240	5.00	1050	5.00	1710	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 573507

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270-2017-01
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Mon Jan-15-18 09:41 am
Report Date: 22-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	573507-013		573507-014					
	Field Id:	NM-MW-13-W-180112		58-B-3-MW-W-180112					
	Depth:								
	Matrix:	GROUND WATER		GROUND WATER					
	Sampled:	Jan-12-18 13:00		Jan-12-18 13:20					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-17-18 12:00		Jan-17-18 12:00					
	Analyzed:	Jan-17-18 18:15		Jan-17-18 18:22					
	Units/RL:	mg/L	RL	mg/L	RL				
Chloride		188	2.50	791	5.00				
TDS by SM2540C	***Extracted:***								
	Analyzed:	Jan-15-18 10:00		Jan-15-18 10:00					
	Units/RL:	mg/L	RL	mg/L	RL				
Total Dissolved Solids		965	5.00	1290	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 573507 **Project ID:** 055270-2017-01

Lab Batch #: 3038368 **Sample:** 3038368-1-BKS **Matrix:** Water

Date Analyzed: 01/15/2018 **Date Prepared:** 01/15/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	1040	104	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 573507 **Project ID:** 055270-2017-01

Analyst: OJS **Date Prepared:** 01/17/2018 **Date Analyzed:** 01/17/2018

Lab Batch ID: 3038656 **Sample:** 7637622-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	25.9	104	25.0	26.1	104	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 573507 **Project ID:** 055270-2017-01

Lab Batch ID: 3038656 **QC- Sample ID:** 573507-006 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/17/2018 **Date Prepared:** 01/17/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	39.3	25.0	63.5	97	25.0	63.5	97	0	90-110	20	

Lab Batch ID: 3038656 **QC- Sample ID:** 573644-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 01/17/2018 **Date Prepared:** 01/17/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	22.8	25.0	48.7	104	25.0	48.3	102	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 573507

Lab Batch #: 3038368 **Project ID:** 055270-2017-01

Date Analyzed: 01/15/2018 10:00 **Date Prepared:** 01/15/2018 **Analyst:** LRI

QC- Sample ID: 573507-014 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1290	1280	1	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 790 of 1515

CHAIN OF CUSTODY

Page 1 Of 2

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 573507

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name: Joe Mireles, Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270-2017-01

Project Location: Andrews County, TX and Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-28-W-180112	-	1/12	1340	GW	1								X	X	X	
2	MW-29-W-180112	-	1/12	1330	GW	1								X	X	X	
3	NM-MW-1-W-180112	-	1/12	1200	GW	1								X	X	X	
4	NM-MW-2-W-180112	-	1/12	1150	GW	1								X	X	X	
5	NM-MW-3-W-180112	-	1/12	1140	GW	1								X	X	X	
6	NM-MW-4-W-180112	-	1/12	1115	GW	1								X	X	X	
7	NM-MW-5-W-180112	-	1/12	1210	GW	1								X	X	X	
8	NM-MW-6-W-180112	-	1/12	1215	GW	1								X	X	X	
9	NM-MW-7-W-180112	-	1/12	1105	GW	1								X	X	X	
10	NM-MW-8-W-180112	-	1/12	1125	GW	1								X	X	X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

FED-EX / UPS: 1

Notes: Please verify with SSow

Temp: -1.4 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: -1.6

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Rece
1	Joe Mireles	1/15/18 0835	1	2	1/15/18 9:41	2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Rece 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. | Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Final 1.000
Page 13 of 15
Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM

Page 791 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 2 Of 2

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #

Xenco Job # 573507

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joe Murdock Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270-2017-01
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	NM-MW-10-W-180112	-	1/12	1225	GW	1								X	X	X	
2	NM-MW-11-W-180112	-	1/12	1235	GW	1								X	X	X	
3	NM-MW-13-W-180112	-	1/12	1300	GW	1								X	X	X	
4	58-B-3-MW-W-180112	-	1/12	1320	GW	1								X	X	X	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes: Please verify tests with SS Oil

FED-EX / UPS: Tra

Temp: -1.4 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -1.6

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler / Relinquished by	Date Time	Received By	Relinquished By	Date Time	Receive
1	Joe Murdock	1/15/18 0835		2	1/15/18 9.4	
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. | Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 14 of 15

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01/15/2018 09:41:00 AM

Work Order #: 573507

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	-1.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Houston
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: ch

PH Device/Lot#: 213315

Checklist completed by: Connie Hernandez Date: 01/15/2018

Checklist reviewed by: Kelsey Brooks Date: 01/15/2018

Analytical Report 573667

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

30-JAN-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

30-JAN-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **573667**
Dollarhide
Project Address: Andrews County,TX and Lea County,NM

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 573667. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 573667 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 573667

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
58-B-1-MW-W-180115	W	01-15-18 13:55		573667-001
58-B-2-MW-W-180115	W	01-15-18 13:40		573667-002
MW-8-W-180115	W	01-15-18 14:30		573667-003
MW-9-W-180115	W	01-15-18 14:15		573667-004
NM-MW-9-W-180115	W	01-15-18 11:20		573667-005
NM-MW-12-W-180115	W	01-15-18 11:45		573667-006
RRR Ranch Windmill-W-180115	W	01-15-18 11:00		573667-007
Smith Residence-W-180115	W	01-15-18 13:20		573667-008
RRR Ranch Windmill-WD-180115	W	01-15-18 00:00		573667-009
58-B-2-MW-WD-180115	W	01-15-18 00:00		573667-010
Wilson Ranch Well-W-180115	W	01-15-18 12:00		573667-011
43-K-1-MW-W-180116	W	01-16-18 14:00		573667-012
44-I-1-MW-W-180116	W	01-16-18 12:50		573667-013
44-J-1-MW-W-180116	W	01-16-18 12:55		573667-014
44-J-2-MW-W-180116	W	01-16-18 13:15		573667-015
44-J-3-MW-W-180116	W	01-16-18 13:10		573667-016
44-J-4-MW-W-180116	W	01-16-18 13:15		573667-017
44-J-5-MW-W-180116	W	01-16-18 13:00		573667-018
45-E-1-MW-W-180116	W	01-16-18 12:35		573667-019
45-E-2-MW-W-180116	W	01-16-18 12:30		573667-020
45-E-3-MW-W-180116	W	01-16-18 13:45		573667-021
45-F-1-MW-W-180116	W	01-16-18 12:20		573667-022
45-FF-MW-W-180116	W	01-16-18 12:25		573667-023
MW-10-W-180116	W	01-16-18 10:15		573667-024
MW-12-W-180116	W	01-16-18 10:35		573667-025
MW-18-W-180116	W	01-16-18 10:40		573667-026
MW-19-W-180116	W	01-16-18 10:50		573667-027
MW-20-W-180116	W	01-16-18 10:00		573667-028
MW-24-W-180116	W	01-16-18 10:25		573667-029
MW-26-W-180116	W	01-16-18 10:10		573667-030
MW-27-W-180116	W	01-16-18 09:40		573667-031
DHU-FWS-W-180116	W	01-16-18 13:35		573667-032

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *573667*

Report Date: *30-JAN-18*
Date Received: *01/17/2018*

Sample receipt non conformances and comments:

Revision to correct sample names

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3039007 Inorganic Anions by EPA 300/300.1
Lab Sample ID 573667-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 573667-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested	*Lab Id:*	573667-001		573667-002		573667-003		573667-004		573667-005		573667-006	
	Field Id:	58-B-1-MW-W-180115		58-B-2-MW-W-180115		MW-8-W-180115		MW-9-W-180115		NM-MW-9-W-180115		NM-MW-12-W-180115	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-15-18 13:55		Jan-15-18 13:40		Jan-15-18 14:30		Jan-15-18 14:15		Jan-15-18 11:20		Jan-15-18 11:45	
Inorganic Anions by EPA 300/300.1	*Extracted:*	Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00	
	Analyzed:	Jan-22-18 11:25		Jan-22-18 11:32		Jan-22-18 11:39		Jan-22-18 11:46		Jan-22-18 11:53		Jan-22-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5250	25.0	3470	25.0	813	10.0	2540	25.0	221	2.50	663	5.00
TDS by SM2540C	*Extracted:*												
	Analyzed:	Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		8620	5.00	5860	5.00	2250	5.00	4380	5.00	717	5.00	1470	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.001

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573667-007		573667-008		573667-009		573667-010		573667-011		573667-012	
	Field Id:	RRR Ranch Windmill-W-18(		Smith Residence-W-180115		RRR Ranch Windmill-WD-1		58-B-2-MW-WD-180115		Wilson Ranch Well-W-1801		43-K-1-MW-W-180116	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-15-18 11:00		Jan-15-18 13:20		Jan-15-18 00:00		Jan-15-18 00:00		Jan-15-18 12:00		Jan-16-18 14:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00	
	Analyzed:	Jan-22-18 12:42		Jan-22-18 10:15		Jan-22-18 12:49		Jan-22-18 12:56		Jan-22-18 12:07		Jan-22-18 13:03	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1600	25.0	650	5.00	1570	25.0	3600	25.0	673	5.00	8020	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3130	5.00	1500	5.00	3240	5.00	5940	5.00	1600	5.00	10500	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573667-013		573667-014		573667-015		573667-016		573667-017		573667-018	
	Field Id:	44-I-1-MW-W-180116		44-J-1-MW-W-180116		44-J-2-MW-W-180116		44-J-3-MW-W-180116		44-J-4-MW-W-180116		44-J-5-MW-W-180116	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-16-18 12:50		Jan-16-18 12:55		Jan-16-18 13:15		Jan-16-18 13:10		Jan-16-18 13:15		Jan-16-18 13:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 09:00		Jan-22-18 12:00	
	Analyzed:	Jan-22-18 13:10		Jan-22-18 13:17		Jan-22-18 13:24		Jan-22-18 13:31		Jan-22-18 13:38		Jan-22-18 14:40	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2940	25.0	3410	25.0	4560	25.0	4800	25.0	3660	25.0	3500	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		5030	5.00	6190	5.00	7820	5.00	8420	5.00	7250	5.00	6230	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573667-019		573667-020		573667-021		573667-022		573667-023		573667-024	
	Field Id:	45-E-1-MW-W-180116		45-E-2-MW-W-180116		45-E-3-MW-W-180116		45-F-1-MW-W-180116		45-FF-MW-W-180116		MW-10-W-180116	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-16-18 12:35		Jan-16-18 12:30		Jan-16-18 13:45		Jan-16-18 12:20		Jan-16-18 12:25		Jan-16-18 10:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00	
	Analyzed:	Jan-22-18 14:47		Jan-22-18 14:54		Jan-22-18 15:01		Jan-22-18 15:22		Jan-22-18 15:29		Jan-22-18 15:36	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2300	25.0	718	10.0	2990	25.0	896	10.0	4820	25.0	5350	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-18-18 09:00		Jan-18-18 09:00		Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4650	5.00	3050	5.00	4940	5.00	1990	5.00	8280	5.00	9650	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.001

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573667-025		573667-026		573667-027		573667-028		573667-029		573667-030	
	Field Id:	MW-12-W-180116		MW-18-W-180116		MW-19-W-180116		MW-20-W-180116		MW-24-W-180116		MW-26-W-180116	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-16-18 10:35		Jan-16-18 10:40		Jan-16-18 10:50		Jan-16-18 10:00		Jan-16-18 10:25		Jan-16-18 10:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00	
	Analyzed:	Jan-22-18 15:43		Jan-22-18 15:50		Jan-22-18 16:18		Jan-22-18 16:25		Jan-22-18 16:46		Jan-22-18 16:53	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		13100 D	100	18800	100	6160	25.0	1130	10.0	4060	25.0	1160	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00		Jan-18-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		21400	5.00	30300	5.00	10300	5.00	2410	5.00	8170	5.00	2860	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 573667

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County,TX and Lea County,NM

Date Received in Lab: Wed Jan-17-18 09:07 am
Report Date: 30-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573667-031		573667-032									
	Field Id:	MW-27-W-180116		DHU-FWS-W-180116									
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER									
	Sampled:	Jan-16-18 09:40		Jan-16-18 13:35									
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 12:00		Jan-22-18 12:00									
	Analyzed:	Jan-22-18 17:00		Jan-22-18 14:19									
	Units/RL:	mg/L	RL	mg/L	RL								
Chloride		2260	25.0	615	10.0								
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-18-18 10:00		Jan-18-18 10:00									
	Units/RL:	mg/L	RL	mg/L	RL								
Total Dissolved Solids		4220	5.00	2820	5.00								

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 573667 **Project ID:** 055270

Lab Batch #: 3039007 **Sample:** 7637856-1-BKS **Matrix:** Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

Inorganic Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<0.500	25.0	25.2	101	90-110	

Lab Batch #: 3038638 **Sample:** 3038638-1-BKS **Matrix:** Water

Date Analyzed: 01/18/2018 **Date Prepared:** 01/18/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	1030	103	80-120	

Lab Batch #: 3038640 **Sample:** 3038640-1-BKS **Matrix:** Water

Date Analyzed: 01/18/2018 **Date Prepared:** 01/18/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	1040	104	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 573667, 573667 **Project ID:** 055270

Analyst: OJS **Date Prepared:** 01/22/2018 **Date Analyzed:** 01/22/2018

Lab Batch ID: 3039028 **Sample:** 7637858-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.5	94	25.0	23.5	94	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 573667 **Project ID:** 055270

Lab Batch ID: 3039007 **QC- Sample ID:** 573667-008 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	650	250	933	113	250	933	113	0	90-110	20	X

Lab Batch ID: 3039007 **QC- Sample ID:** 573667-011 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	673	250	946	109	250	951	111	1	90-110	20	X

Lab Batch ID: 3039028 **QC- Sample ID:** 573667-032 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	615	500	1100	97	500	1100	97	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 573667 **Project ID:** 055270

Lab Batch ID: 3039028 **QC- Sample ID:** 573809-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	566	250	830	106	250	838	109	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 573667

Lab Batch #: 3038638 **Project ID:** 055270

Date Analyzed: 01/18/2018 09:00 **Date Prepared:** 01/18/2018 **Analyst:** LRI

QC- Sample ID: 573667-008 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1500	1510	1	10	

Lab Batch #: 3038638

Date Analyzed: 01/18/2018 09:00 **Date Prepared:** 01/18/2018 **Analyst:** LRI

QC- Sample ID: 573667-011 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1600	1680	5	10	

Lab Batch #: 3038640

Date Analyzed: 01/18/2018 10:00 **Date Prepared:** 01/18/2018 **Analyst:** LRI

QC- Sample ID: 573667-032 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	2820	2770	2	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 809 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of ~~2~~ JM 1-19-18

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #
Xenco Job # ~~573667~~ 573667

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joe Mireles Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270-2017-01
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	58-B-1-mw-W-180115	—	1/15	1355	GW	1								X	X	X	
2	58-B-2-mw-W-180115	—	1/15	1340	GW	1								X	X	X	
3	mw-8-W-180115	—	1/15	1430	GW	1								X	X	X	
4	mw-9-W-180115	—	1/15	1415	GW	1								X	X	X	
5	NM-mw-9-W-180115	—	1/15	1120	GW	1								X	X	X	
6	NM-mw-12-W-180115	—	1/15	1145	GW	1								X	X	X	
7	RRR Ranch Windmill-W-180115	—	1/15	1100	GW	1								X	X	X	
8	Smith Residence-W-180115	—	1/15	1320	GW	3								X	X	X	MS/MSD
9	RRR Ranch Windmill-WD-180115	—	1/15	—	GW	1								X	X	X	
10	58-B-2-mw-WD-180115	—	1/15	—	GW	1								X	X	X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: -.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -.5

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	1/17/18 0907		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			X

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 17 of 21

Page 810 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 2 Of 4 JM 1-17-18

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

Dallas Texas (214-902-0300) | Norcross, Georgia (770-449-8800) | Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # | Xenco Job # 573665 573667

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com | Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glenn Quinney Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270-2017-01

Project Location: Andrews County, TX and Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	Wilson Ranch Well-W-180115	—	1/15	1200	GW	3								X	X	X	MS/MSD
2	43-K-1-MW-W-180116	—	1/16	1400	GW	1								X	X	X	
3	44-I-1-MW-W-180116	—	1/16	1250	GW	1								X	X	X	
4	44-J-1-MW-W-180116	—	1/16	1255	GW	1								X	X	X	
5	44-J-2-MW-W-180116	—	1/16	1315	GW	1								X	X	X	
6	44-J-3-MW-W-180116	—	1/16	1310	GW	1								X	X	X	
7	44-J-4-MW-W-180116	—	1/16	1315	GW	1								X	X	X	
8	44-J-5-MW-W-180116	—	1/16	1300	GW	1								X	X	X	
9	45-E-1-MW-W-180116	—	1/16	1235	GW	1								X	X	X	
10	45-E-2-MW-W-180116	—	1/16	1230	GW	1								X	X	X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: -.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -.5

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1/17/18 0907				
2						
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
						X

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 18 of 21

Page 811 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 3 Of 4

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote # 573 Xenco Job # 573067

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name Joe Mireles Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270-2017-01
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	45-E-3-MW-W-180116	—	1/16	1345	GW	1								X	X	X	
2	45-F-1-mw-w-180116	—	1/16	1220	GW	1								X	X	X	
3	45-FF-mw-w-180116	—	1/16	1225	GW	1								X	X	X	
4	mw-10-w-180116	—	1/16	1015	GW	1								X	X	X	
5	mw-12-w-180116	—	1/16	1035	GW	1								X	X	X	
6	mw-18-w-180116	—	1/16	1040	GW	1								X	X	X	
7	mw-19-w-180116	—	1/16	1050	GW	1								X	X	X	
8	mw-20-w-180116	—	1/16	1000	GW	1								X	X	X	
9	mw-24-w-180116	—	1/16	1025	GW	1								X	X	X	
10	mw-26-w-180116	—	1/16	1010	GW	1								X	X	X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Temp: -.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -.5

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	1/17/18 0907		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			X

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.001
Page 19 of 21
Released to Imaging: 11/21/2023 10:32:34 AM

Page 812 of 1515

CHAIN OF CUSTODY

Page 4 Of 4

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #
Xenco Job # 573667

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name Glenn Quinney Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270-2017-01
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-27-W-180116	-	1/16	0940	GW	1								X	X	X	
2	DHG-FWS-W-180116	-	1/16	1335	GW	3								X	X	X	MS/MSD
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: -.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -.5

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	1/17/18 0907	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 20 of 21

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01/17/2018 09:07:00 AM

Work Order #: 573667

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: ss

PH Device/Lot#: 213315

Checklist completed by: Shawnee Smith Date: 01/17/2018

Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 01/17/2018

Kelsey Brooks

Analytical Report 573809

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

25-JAN-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

25-JAN-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **573809**
Dollarhide
Project Address: New Mexico

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 573809. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 573809 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 573809

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3-W-180117	W	01-17-18 11:00		573809-001
MW-4-W-180117	W	01-17-18 11:30		573809-002
MW-5-W-180117	W	01-17-18 10:50		573809-003
MW-6-W-180117	W	01-17-18 10:40		573809-004
MW-11-W-180117	W	01-17-18 10:25		573809-005
MW-13-W-180117	W	01-17-18 12:00		573809-006
MW-14-W-180117	W	01-17-18 11:15		573809-007
MW-15-W-180117	W	01-17-18 13:00		573809-008
MW-16-W-180117	W	01-17-18 12:50		573809-009
MW-17-W-180117	W	01-17-18 12:30		573809-010
MW-21-W-180117	W	01-17-18 12:40		573809-011
MW-22-W-180117	W	01-17-18 12:20		573809-012
MW-23-W-180117	W	01-17-18 12:25		573809-013
MW-25-W-180117	W	01-17-18 10:15		573809-014
MW-30-W-180117	W	01-17-18 12:05		573809-015
MW-31-W-180117	W	01-17-18 09:50		573809-016
Livermore-W-180117	W	01-17-18 12:10		573809-017
Trac-4-W-180117	W	01-17-18 11:10		573809-018
Trac-4-WD-180117	W	01-17-18 00:00		573809-019

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *573809*

Report Date: *25-JAN-18*
Date Received: *01/18/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 573809

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Thu Jan-18-18 10:18 am
Report Date: 25-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573809-001		573809-002		573809-003		573809-004		573809-005		573809-006	
	Field Id:	MW-3-W-180117		MW-4-W-180117		MW-5-W-180117		MW-6-W-180117		MW-11-W-180117		MW-13-W-180117	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-17-18 11:00		Jan-17-18 11:30		Jan-17-18 10:50		Jan-17-18 10:40		Jan-17-18 10:25		Jan-17-18 12:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 12:00		Jan-22-18 13:55	
	Analyzed:	Jan-22-18 15:57		Jan-22-18 17:07		Jan-22-18 17:14		Jan-22-18 17:21		Jan-22-18 17:28		Jan-22-18 18:31	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		566	5.00	345	5.00	293	5.00	408	5.00	8120	50.0	1750	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1410	5.00	968	5.00	1130	5.00	1490	5.00	12700	5.00	3920	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 573809

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Thu Jan-18-18 10:18 am
Report Date: 25-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573809-007		573809-008		573809-009		573809-010		573809-011		573809-012	
	Field Id:	MW-14-W-180117		MW-15-W-180117		MW-16-W-180117		MW-17-W-180117		MW-21-W-180117		MW-22-W-180117	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-17-18 11:15		Jan-17-18 13:00		Jan-17-18 12:50		Jan-17-18 12:30		Jan-17-18 12:40		Jan-17-18 12:20	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55	
	Analyzed:	Jan-22-18 18:38		Jan-22-18 18:45		Jan-22-18 18:10		Jan-22-18 18:52		Jan-22-18 19:13		Jan-22-18 19:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1590	25.0	873	10.0	364	5.00	10100	50.0	6800	25.0	10400	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2910	5.00	1770	5.00	1100	5.00	15300	5.00	10900	5.00	16200	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 573809

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Thu Jan-18-18 10:18 am
Report Date: 25-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	573809-013		573809-014		573809-015		573809-016		573809-017		573809-018	
	Field Id:	MW-23-W-180117		MW-25-W-180117		MW-30-W-180117		MW-31-W-180117		Livermore-W-180117		Trac-4-W-180117	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jan-17-18 12:25		Jan-17-18 10:15		Jan-17-18 12:05		Jan-17-18 09:50		Jan-17-18 12:10		Jan-17-18 11:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55		Jan-22-18 13:55	
	Analyzed:	Jan-22-18 19:26		Jan-22-18 19:33		Jan-22-18 19:40		Jan-22-18 20:08		Jan-22-18 20:15		Jan-22-18 20:36	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5230	25.0	20900	100	2350	25.0	10700	50.0	2700	25.0	335	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00		Jan-19-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		9340	5.00	31400	5.00	4160	5.00	16400	5.00	4830	5.00	1120	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 573809

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Thu Jan-18-18 10:18 am
Report Date: 25-JAN-18
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	573809-019						
	Field Id:	Trac-4-WD-180117						
	Depth:							
	Matrix:	GROUND WATER						
	Sampled:	Jan-17-18 00:00						
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jan-22-18 13:55						
	Analyzed:	Jan-22-18 20:43						
	Units/RL:	mg/L	RL					
Chloride		336	5.00					
TDS by SM2540C	***Extracted:***							
	Analyzed:	Jan-19-18 12:00						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		1150	5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	Phone	Fax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 573809 **Project ID:** 055270

Lab Batch #: 3038750 **Sample:** 3038750-1-BKS **Matrix:** Water

Date Analyzed: 01/19/2018 **Date Prepared:** 01/19/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	1000	100	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 573809 **Project ID:** 055270

Analyst: OJS **Date Prepared:** 01/22/2018 **Date Analyzed:** 01/22/2018

Lab Batch ID: 3039028 **Sample:** 7637858-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.5	94	25.0	23.5	94	0	90-110	20	

Analyst: OJS **Date Prepared:** 01/22/2018 **Date Analyzed:** 01/22/2018

Lab Batch ID: 3039246 **Sample:** 7637859-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.5	94	25.0	23.4	94	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 573809 **Project ID:** 055270

Lab Batch ID: 3039028 **QC- Sample ID:** 573667-032 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	615	500	1100	97	500	1100	97	0	90-110	20	

Lab Batch ID: 3039028 **QC- Sample ID:** 573809-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	566	250	830	106	250	838	109	1	90-110	20	

Lab Batch ID: 3039246 **QC- Sample ID:** 573809-009 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	364	250	617	101	250	628	106	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 573809 **Project ID:** 055270

Lab Batch ID: 3039246 **QC- Sample ID:** 573933-002 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 01/22/2018 **Date Prepared:** 01/22/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	857	250	1090	93	250	1080	89	1	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 573809

Lab Batch #: 3038750 **Project ID:** 055270

Date Analyzed: 01/19/2018 12:00 **Date Prepared:** 01/19/2018 **Analyst:** LRI

QC- Sample ID: 573809-011 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	10900	10800	1	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 828 of 1515

CHAIN OF CUSTODY

Page 1 Of 2

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 573809

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name: Glenn Quinney, Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270-2017-01

Project Location: Andrews County, TX and Lea County, NM

Invoice To:

PO Number:

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TDS	Chloride	Field Comments
1	MW-3-W-180117	—	1/17	1100	GW	1								X	X	X	
2	MW-4-W-180117	—	1/17	1130	GW	1								X	X	X	
3	MW-5-W-180117	—	1/17	1050	GW	1								X	X	X	
4	MW-6-W-180117	—	1/17	1040	GW	1								X	X	X	
5	MW-11-W-180117	—	1/17	1025	GW	1								X	X	X	
6	MW-13-W-180117	—	1/17	1200	GW	1								X	X	X	
7	MW-14-W-180117	—	1/17	1115	GW	1								X	X	X	
8	MW-15-W-180117	—	1/17	1300	GW	1								X	X	X	
9	MW-16-W-180117	—	1/17	1250	GW	1								X	X	X	
10	MW-17-W-180117	—	1/17	1230	GW	1								X	X	X	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: -0.7 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -0.5

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	1/18/18 1015		2		2
3	Relinquished by:	Date Time:	Received By: 10:18	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X — Cooler Temp. — Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM

Released to Imaging: 11/21/2023 10:32:34 AM

Final 1.000

Page 15 of 17

Page 829 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 2 Of 2

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #
Xenco Job # 573809

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name Glenna Quinney, Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270-2017-01
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-21-W-180117	—	1/17	1240	GW	1								X	X	X	
2	MW-22-W-180117	—	1/17	1220	GW	1								X	X	X	
3	MW-23-W-180117	—	1/17	1225	GW	1								X	X	X	
4	MW-25-W-180117	—	1/17	1015	GW	1								X	X	X	
5	MW-30-W-180117	—	1/17	1205	GW	1								X	X	X	
6	MW-31-W-180117	—	1/17	0950	GW	1								X	X	X	
7	Livermore-W-180117	—	1/17	1210	GW	1								X	X	X	
8	TRAC-4-W-180117	—	1/17	1110	GW	1								X	X	X	
9	TRAC-4-WD-180117	—	1/17	—	GW	1								X	X	X	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Temp: -0.7 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 0.5

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	1/18/17 1050	1	2		2
3	Relinquished by:	Date Time:	Received By: 10:18	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 16 of 17

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01/18/2018 10:18:00 AM

Work Order #: 573809

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: ss

PH Device/Lot#: 213315

Checklist completed by: Shawnee Smith Date: 01/18/2018

Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 01/18/2018

Kelsey Brooks

Analytical Report 581708

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

13-APR-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

13-APR-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **581708**
Dollarhide
Project Address: Andrews County, TX and Lea County, NM

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 581708. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 581708 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 581708

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Livermore-W-180406	W	04-06-18 10:30		581708-001
MW-30-W-180406	W	04-06-18 10:50		581708-002
MW-13-W-180406	W	04-06-18 11:00		581708-003
MW-4-W-180406	W	04-06-18 11:10		581708-004
MW-14-W-180406	W	04-06-18 11:20		581708-005
Trac-4-W-180406	W	04-06-18 11:30		581708-006
MW-15-W-180406	W	04-06-18 11:40		581708-007
MW-16-W-180406	W	04-06-18 11:50		581708-008
MW-21-W-180406	W	04-06-18 12:10		581708-009
MW-17-W-180406	W	04-06-18 12:20		581708-010
MW-22-W-180406	W	04-06-18 12:30		581708-011
MW-23-W-180406	W	04-06-18 12:40		581708-012
Wilson Ranch-W-180406	W	04-06-18 13:00		581708-013

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *581708*

Report Date: *13-APR-18*
Date Received: *04/06/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3046106 Inorganic Anions by EPA 300/300.1

Lab Sample ID 581708-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 581708-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 581708

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County, TX and Lea County, N

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581708-001		581708-002		581708-003		581708-004		581708-005		581708-006	
	Field Id:	Livermore-W-180406		MW-30-W-180406		MW-13-W-180406		MW-4-W-180406		MW-14-W-180406		Trac-4-W-180406	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-06-18 10:30		Apr-06-18 10:50		Apr-06-18 11:00		Apr-06-18 11:10		Apr-06-18 11:20		Apr-06-18 11:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00	
	Analyzed:	Apr-09-18 14:56		Apr-09-18 15:02		Apr-09-18 15:07		Apr-09-18 15:31		Apr-09-18 15:37		Apr-09-18 15:13	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2530	25.0	2240	25.0	1780	25.0	350	5.00	1720	25.0	401	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-09-18 11:00		Apr-09-18 11:00		Apr-09-18 11:00		Apr-09-18 11:00		Apr-09-18 11:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1430	5.00	1310	5.00	664	5.00	413	5.00	1270	5.00	1040	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581708

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County, TX and Lea County, N

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581708-007		581708-008		581708-009		581708-010		581708-011		581708-012	
	Field Id:	MW-15-W-180406		MW-16-W-180406		MW-21-W-180406		MW-17-W-180406		MW-22-W-180406		MW-23-W-180406	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-06-18 11:40		Apr-06-18 11:50		Apr-06-18 12:10		Apr-06-18 12:20		Apr-06-18 12:30		Apr-06-18 12:40	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00		Apr-09-18 09:00	
	Analyzed:	Apr-09-18 15:43		Apr-09-18 15:49		Apr-09-18 16:07		Apr-09-18 16:13		Apr-09-18 16:19		Apr-09-18 16:25	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		877	10.0	432	5.00	7630	50.0	9590	50.0	10500	50.0	6830	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1900	5.00	1310	5.00	11000	5.00	14800	5.00	17200	5.00	10100	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581708

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Andrews County, TX and Lea County, N

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	581708-013						
	Field Id:	Wilson Ranch-W-180406						
	Depth:							
	Matrix:	GROUND WATER						
	Sampled:	Apr-06-18 13:00						
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-09-18 09:00						
	Analyzed:	Apr-09-18 16:31						
	Units/RL:	mg/L	RL					
Chloride		1360	25.0					
TDS by SM2540C	***Extracted:***							
	Analyzed:	Apr-10-18 09:00						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		2950	5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 581708 **Project ID:** 055270

Lab Batch #: 3046235 **Sample:** 3046235-1-BKS **Matrix:** Water

Date Analyzed: 04/09/2018 **Date Prepared:** 04/09/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	988	99	80-120	

Lab Batch #: 3046321 **Sample:** 3046321-1-BKS **Matrix:** Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	995	100	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 581708 **Project ID:** 055270

Analyst: OJS **Date Prepared:** 04/09/2018 **Date Analyzed:** 04/09/2018

Lab Batch ID: 3046106 **Sample:** 7642270-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	24.9	100	25.0	24.3	97	2	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 581708 **Project ID:** 055270

Lab Batch ID: 3046106 **QC- Sample ID:** 581663-004 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 04/09/2018 **Date Prepared:** 04/09/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	15.8	25.0	39.0	93	25.0	39.1	93	0	90-110	20	

Lab Batch ID: 3046106 **QC- Sample ID:** 581708-006 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 04/09/2018 **Date Prepared:** 04/09/2018 **Analyst:** OJS

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	401	250	562	64	250	613	85	9	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 581708

Lab Batch #: 3046235 **Project ID:** 055270

Date Analyzed: 04/09/2018 11:00 **Date Prepared:** 04/09/2018 **Analyst:** LRI

QC- Sample ID: 581708-005 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1270	1290	2	10	

Lab Batch #: 3046235

Date Analyzed: 04/09/2018 11:00 **Date Prepared:** 04/09/2018 **Analyst:** LRI

QC- Sample ID: 581717-004 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	529	540	2	10	

Lab Batch #: 3046321

Date Analyzed: 04/10/2018 09:00 **Date Prepared:** 04/10/2018 **Analyst:** LRI

QC- Sample ID: 581708-006 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1040	1040	0	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 843 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 2

Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #

Xenco Job # 581708

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joe Mireles, Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	Livermore-W-180406		4/6	1030	GW	1								X	X	X	
2	MW-30-W-180406		4/6	1050													
3	MW-13-W-180406		4/6	1100													
4	MW-4-W-180406		4/6	1110													
5	MW-14-W-180406		4/6	1120													
6	Trac-4-W-180406		4/6	1130		3											MS/MSD
7	MW-15-W-180406		4/6	1140		1											
8	MW-16-W-180406		4/6	1150													
9	MW-21-W-180406		4/6	1210													
10	MW-17-W-180406		4/6	1220													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:
1		4/6/18 1515		2	
	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:
3			3	4	
	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable
5			5		

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 13 of 15

Page 844 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 2

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote # | Xenco Job # 581708

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joe Mireles Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-22-W-180406		4/6	1230	GW	1								X	X	X	
2	MW-23-W-180406		4/6	1240	↓	↓								↓	↓	↓	
3	Wilson Ranch-W-180406		4/6	1300	↓	↓								↓	↓	↓	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days) | Data Deliverable Information | Notes:

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY
- [ ] Level II Std QC
- [ ] Level III Std QC+ Forms
- [ ] Level 3 (CLP Forms)
- [ ] TRRP Checklist
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] TRRP Level IV
- [ ] UST / RG -411

TAT Starts Day received by Lab, if received by 5:00 pm

FED-E

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:
1	Joe Mireles	4/6/18 1515	1	2	
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable / On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 14 of 15
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04/06/2018 03:15:00 PM

Work Order #: 581708

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: KL

PH Device/Lot#: 213315

Checklist completed by: Katie Lowe Date: 04/06/2018

Checklist reviewed by: Kelsey Brooks Date: 04/12/2018

Analytical Report 581714

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

13-APR-18

Collected By: Client





1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

13-APR-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **581714**
Dollarhide
Project Address: New Mexico

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 581714. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 581714 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 581714

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-1-W-180405	W	04-05-18 12:50		581714-001
NM-MW-2-W-180405	W	04-05-18 13:15		581714-002
NM-MW-3-W-180405	W	04-05-18 13:25		581714-003
NM-MW-4-W-180405	W	04-05-18 14:10		581714-004
NM-MW-5-W-180405	W	04-05-18 12:40		581714-005
NM-MW-6-W-180405	W	04-05-18 13:00		581714-006
NM-MW-7-W-180405	W	04-05-18 14:00		581714-007
NM-MW-8-W-180405	W	04-05-18 14:15		581714-008
NM-MW-9-W-180405	W	04-05-18 12:05		581714-009
NM-MW-10-W-180405	W	04-05-18 11:30		581714-010
NM-MW-11-W-180405	W	04-05-18 11:10		581714-011
NM-MW-12-W-180405	W	04-05-18 11:55		581714-012
NM-MW-13-W-180405	W	04-05-18 10:45		581714-013
NM-MW-11-WD-180405	W	04-05-18 00:00		581714-014
RRR Ranch Windmill-WW-180405	W	04-05-18 13:45		581714-015
Smith Ranch House-WW-W-180405	W	04-05-18 12:30		581714-016
MW-18-W-180405	W	04-05-18 10:20		581714-017
MW-19-W-180405	W	04-05-18 10:30		581714-018
MW-12-W-180405	W	04-05-18 10:40		581714-019
MW-31-W-180405	W	04-05-18 10:50		581714-020
MW-24-W-180405	W	04-05-18 11:00		581714-021
MW-26-W-180405	W	04-05-18 11:10		581714-022
MW-20-W-180405	W	04-05-18 11:20		581714-023
MW-27-W-180405	W	04-05-18 11:35		581714-024
DHU-FWS-180405	W	04-05-18 11:40		581714-025
MW-8-W-180405	W	04-05-18 11:50		581714-026
MW-9-W-180405	W	04-05-18 12:00		581714-027
MW-29-W-180405	W	04-05-18 12:25		581714-028
MW-28-W-180405	W	04-05-18 12:35		581714-029
MW-10-W-180405	W	04-05-18 12:50		581714-030
MW-10-WD-180405	W	04-05-18 00:00		581714-031
MW-11-W-180405	W	04-05-18 13:00		581714-032
MW-6-W-180405	W	04-05-18 13:10		581714-033
MW-5-W-180405	W	04-05-18 13:20		581714-034
MW-3-W-180405	W	04-05-18 13:40		581714-035
MW-25-W-180405	W	04-05-18 14:00		581714-036

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *581714*

Report Date: *13-APR-18*
Date Received: *04/06/2018*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-001		581714-002		581714-003		581714-004		581714-005		581714-006	
	Field Id:	NM-MW-1-W-180405		NM-MW-2-W-180405		NM-MW-3-W-180405		NM-MW-4-W-180405		NM-MW-5-W-180405		NM-MW-6-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 12:50		Apr-05-18 13:15		Apr-05-18 13:25		Apr-05-18 14:10		Apr-05-18 12:40		Apr-05-18 13:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00	
	Analyzed:	Apr-10-18 10:56		Apr-10-18 11:02		Apr-10-18 11:08		Apr-10-18 11:14		Apr-10-18 11:32		Apr-10-18 11:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		263	5.00	610	5.00	180	2.50	34.1	2.50	134	5.00	127	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1400	5.00	1210	5.00	601	5.00	410	5.00	1300	5.00	836	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-007		581714-008		581714-009		581714-010		581714-011		581714-012	
	Field Id:	NM-MW-7-W-180405		NM-MW-8-W-180405		NM-MW-9-W-180405		NM-MW-10-W-180405		NM-MW-11-W-180405		NM-MW-12-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 14:00		Apr-05-18 14:15		Apr-05-18 12:05		Apr-05-18 11:30		Apr-05-18 11:10		Apr-05-18 11:55	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00	
	Analyzed:	Apr-10-18 11:44		Apr-10-18 11:50		Apr-10-18 11:56		Apr-10-18 15:24		Apr-10-18 15:30		Apr-10-18 15:48	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2090	25.0	5110	25.0	234	5.00	301	5.00	699	10.0	656	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4270	5.00	9160	5.00	807	5.00	1620	5.00	1920	5.00	1430	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-013		581714-014		581714-015		581714-016		581714-017		581714-018	
	Field Id:	NM-MW-13-W-180405		NM-MW-11-WD-180405		RRR Ranch Windmill-WW-		Smith Ranch House-WW-W-		MW-18-W-180405		MW-19-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 10:45		Apr-05-18 00:00		Apr-05-18 13:45		Apr-05-18 12:30		Apr-05-18 10:20		Apr-05-18 10:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00		Apr-10-18 10:00	
	Analyzed:	Apr-10-18 15:54		Apr-10-18 16:00		Apr-10-18 16:06		Apr-10-18 12:02		Apr-10-18 16:12		Apr-10-18 16:18	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		180	5.00	135	10.0	1620	25.0	1280	25.0	20000	100	6600	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1090	5.00	1600	5.00	3110	5.00	2670	5.00	30400	5.00	9880	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-019		581714-020		581714-021		581714-022		581714-023		581714-024	
	Field Id:	MW-12-W-180405		MW-31-W-180405		MW-24-W-180405		MW-26-W-180405		MW-20-W-180405		MW-27-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 10:40		Apr-05-18 10:50		Apr-05-18 11:00		Apr-05-18 11:10		Apr-05-18 11:20		Apr-05-18 11:35	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-10-18 10:00		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30	
	Analyzed:	Apr-10-18 16:24		Apr-11-18 12:52		Apr-11-18 12:58		Apr-11-18 13:04		Apr-11-18 13:22		Apr-11-18 13:28	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		13300	100	11700	50.0	3980	25.0	1230	25.0	1100	10.0	2400	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		19400	5.00	17700	5.00	7080	5.00	2730	5.00	2130	5.00	4250	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-025		581714-026		581714-027		581714-028		581714-029		581714-030	
	Field Id:	DHU-FWS-180405		MW-8-W-180405		MW-9-W-180405		MW-29-W-180405		MW-28-W-180405		MW-10-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 11:40		Apr-05-18 11:50		Apr-05-18 12:00		Apr-05-18 12:25		Apr-05-18 12:35		Apr-05-18 12:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30	
	Analyzed:	Apr-11-18 13:34		Apr-11-18 13:40		Apr-11-18 13:46		Apr-11-18 14:10		Apr-11-18 14:16		Apr-11-18 14:45	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		572	25.0	839	10.0	2930	25.0	396	5.00	1540	25.0	5470	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2640	5.00	2300	5.00	4690	5.00	1100	5.00	2660	5.00	8630	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 581714

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Fri Apr-06-18 03:15 pm
Report Date: 13-APR-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	581714-031		581714-032		581714-033		581714-034		581714-035		581714-036	
	Field Id:	MW-10-WD-180405		MW-11-W-180405		MW-6-W-180405		MW-5-W-180405		MW-3-W-180405		MW-25-W-180405	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Apr-05-18 00:00		Apr-05-18 13:00		Apr-05-18 13:10		Apr-05-18 13:20		Apr-05-18 13:40		Apr-05-18 14:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30		Apr-11-18 10:30	
	Analyzed:	Apr-11-18 14:51		Apr-11-18 14:57		Apr-11-18 15:03		Apr-11-18 15:09		Apr-11-18 15:15		Apr-11-18 15:21	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5420	25.0	7990	50.0	411	5.00	289	5.00	589	5.00	22400	100
TDS by SM2540C	***Extracted:***												
	Analyzed:	Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00		Apr-10-18 09:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		8540	5.00	11000	5.00	1430	5.00	1140	5.00	1300	5.00	32800	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 581714 **Project ID:** 055270

Lab Batch #: 3046321 **Sample:** 3046321-1-BKS **Matrix:** Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	995	100	80-120	

Lab Batch #: 3046384 **Sample:** 3046384-1-BKS **Matrix:** Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	1000	100	80-120	

Lab Batch #: 3046385 **Sample:** 3046385-1-BKS **Matrix:** Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** LRI

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	5.00	1000	982	98	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Received by OCD: 3/23/2023 11:36:17 AM

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 581714 **Project ID:** 055270

Analyst: SCM **Date Prepared:** 04/10/2018 **Date Analyzed:** 04/10/2018

Lab Batch ID: 3046282 **Sample:** 7642340-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.3	93	25.0	23.0	92	1	90-110	20	

Analyst: SCM **Date Prepared:** 04/11/2018 **Date Analyzed:** 04/11/2018

Lab Batch ID: 3046419 **Sample:** 7642453-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.0	92	25.0	23.2	93	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Released to Imaging: 11/21/2023 10:32:34 AM

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 581714 **Project ID:** 055270

Lab Batch ID: 3046282 **QC- Sample ID:** 581714-016 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1280	1250	2480	96	1250	2560	102	3	90-110	20	

Lab Batch ID: 3046282 **QC- Sample ID:** 581837-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 04/10/2018 **Date Prepared:** 04/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	18.2	25.0	41.7	94	25.0	41.2	92	1	90-110	20	

Lab Batch ID: 3046419 **QC- Sample ID:** 581936-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 04/11/2018 **Date Prepared:** 04/11/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1.46	25.0	26.5	100	25.0	25.8	97	3	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 581714 **Project ID:** 055270

Lab Batch ID: 3046419 **QC- Sample ID:** 581938-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 04/11/2018 **Date Prepared:** 04/11/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	25.4	25.0	50.1	99	25.0	50.2	99	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 581714

Lab Batch #: 3046321 **Project ID:** 055270

Date Analyzed: 04/10/2018 09:00 **Date Prepared:** 04/10/2018 **Analyst:** LRI

QC- Sample ID: 581708-006 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	1040	1040	0	10	

Lab Batch #: 3046384

Date Analyzed: 04/10/2018 09:00 **Date Prepared:** 04/10/2018 **Analyst:** LRI

QC- Sample ID: 581714-016 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	2670	2540	5	10	

Lab Batch #: 3046384

Date Analyzed: 04/10/2018 09:00 **Date Prepared:** 04/10/2018 **Analyst:** LRI

QC- Sample ID: 581714-032 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	11000	11500	4	10	

Lab Batch #: 3046385

Date Analyzed: 04/10/2018 09:00 **Date Prepared:** 04/10/2018 **Analyst:** LRI

QC- Sample ID: 581714-036 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Dissolved Solids	32800	33000	1	10	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 862 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 1 Of 2

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #
Xenco Job # 581714

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joshua Shurley Matt Laughlin

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	NM-MW-1-W-180405	—	04/05/18	1250	GW	1								X	X	X	
2	NM-MW-2-W-180405	—		1315													
3	NM-MW-3-W-180405	—		1325													
4	NM-MW-4-W-180405	—		1410													
5	NM-MW-5-W-180405	—		1240													
6	NM-MW-6-W-180405	—		1300													
7	NM-MW-7-W-180405	—		1400													
8	NM-MW-8-W-180405	—		1415													
9	NM-MW-9-W-180405	—		1205													
10	NM-MW-10-W-180405	—		1130													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

FED-EX

Notes:

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		4/6/18 1515		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 17 of 21

Page 863 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 2 Of 2

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
www.xenco.com
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)

Xenco Quote # | Xenco Job # 581714

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joshua Shamley Matt Laughlin

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TDS	Chloride	Field Comments
1	NM-MW-11-W-180405	—	04/05/18	1110	GW	4								X	X	X	
2	NM-MW-12-W-180405	—		1155													
3	NM-MW-13-W-180405	—		1045													
4	NM-MW-11-WD-180405	—		—													
5	RRR Ranch windmill-well-W-180405	—		1345													
6	Smith Ranchhouse-WW-W-180405	—		1230		3								X	X	X	MS / MSD
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1	Joe Muela	4/6/18 1515		2		2
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 18 of 21

Page 864 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

CHAIN OF CUSTODY

Page 3 Of 4

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

Dallas Texas (214-902-0300) | Norcross, Georgia (770-449-8800) | Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # | Xenco Job # 581714

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com | Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Joe Mireles Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Andrews County, TX and Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-18-W-180405	-	4/5	1020	GW	1								X	X	X	
2	MW-19-W-180405		4/5	1030													
3	MW-12-W-180405		4/5	1040													
4	MW-31-W-180405		4/5	1050													
5	MW-24-W-180405		4/5	1100													
6	MW-26-W-180405		4/5	1110													
7	MW-20-W-180405		4/5	1120													
8	MW-27-W-180405		4/5	1135													
9	DHV-FWS-180405		4/5	1140													
10	MW-8-W-180405		4/5	1150													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	4/6/23 1515		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
				4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 19 of 21

Page 865 of 1515

CHAIN OF CUSTODY

Page 4 Of 4

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #
Xenco Job # 581714

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Joe Mireles Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Andrews County, TX and Lea County, NM
Invoice To:
PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-9-W-180405		4/5	1200	GW	1								X	X	X	
2	MW-29-W-180405		4/5	1225													
3	MW-28-W-180405		4/5	1235													
4	MW-10-W-180405		4/5	1250													
5	MW-10-WD-180405		4/5														
6	MW-11-W-180405		4/5	1300													
7	MW-6-W-180405		4/5	1310													
8	MW-5-W-180405		4/5	1320													
9	MW-3-W-180405		4/5	1340													
10	MW-25-W-180405		4/5	1400													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [x] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

FED-EX

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joe Mireles	4/6/23 1515				
2						
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 20 of 21

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04/06/2018 03:15:00 PM

Work Order #: 581714

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: KL

PH Device/Lot#: 213315

Checklist completed by: Jessica Kramer — Date: 04/06/2018

Jessica Kramer

Checklist reviewed by: Kelsey Brooks — Date: 04/09/2018

Kelsey Brooks

Analytical Report 591257

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

18-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-JUL-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **591257**
Dollarhide
Project Address: Lea County, NM

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 591257. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 591257 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 591257

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-15-180703	W	07-03-18 09:05		591257-001
MW-16-180703	W	07-03-18 09:20		591257-002
MW-21-180703	W	07-03-18 09:30		591257-003
MW-17-180703	W	07-03-18 09:40		591257-004
MW-22-180703	W	07-03-18 10:00		591257-005
MW-23-180703	W	07-03-18 09:55		591257-006
MW-13-180703	W	07-03-18 10:05		591257-007
MW-14-180703	W	07-03-18 10:25		591257-008
Trac-4-180703	W	07-03-18 10:30		591257-009
MW-3	W	07-03-18 10:50		591257-010
MW-4	W	07-03-18 11:05		591257-011
MW-5	W	07-03-18 11:20		591257-012
MW-6	W	07-03-18 11:30		591257-013
MW-11	W	07-03-18 11:40		591257-014
MW-25	W	07-03-18 11:55		591257-015
Livermore	W	07-03-18 12:10		591257-016
MW-30	W	07-03-18 12:30		591257-017
MW-27	W	07-03-18 13:45		591257-018
MW-10	W	07-03-18 14:00		591257-019
MW-24	W	07-03-18 14:10		591257-020
MW-31	W	07-03-18 14:25		591257-021
MW-12	W	07-03-18 14:35		591257-022
MW-18	W	07-03-18 14:45		591257-023
DUP-1	W	07-03-18 00:00		591257-024
DUP-2	W	07-03-18 00:00		591257-025

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *591257*

Report Date: *18-JUL-18*
Date Received: *07/05/2018*

Sample receipt non conformances and comments:

Revision to correct sample name on 591257-015-- KB

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 591257

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Lea County, NM

Date Received in Lab: Thu Jul-05-18 08:59 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591257-001		591257-002		591257-003		591257-004		591257-005		591257-006	
	Field Id:	MW-15-180703		MW-16-180703		MW-21-180703		MW-17-180703		MW-22-180703		MW-23-180703	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-03-18 09:05		Jul-03-18 09:20		Jul-03-18 09:30		Jul-03-18 09:40		Jul-03-18 10:00		Jul-03-18 09:55	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00	
	Analyzed:	Jul-06-18 17:37		Jul-06-18 17:48		Jul-06-18 17:58		Jul-06-18 18:08		Jul-06-18 18:39		Jul-06-18 18:50	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		914	10.0	430	5.00	6860	50.0	8570	50.0	10300	50.0	4390	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1650	5.00	1160	5.00	11100	5.00	15000	5.00	16300	5.00	6870	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591257

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Lea County, NM

Date Received in Lab: Thu Jul-05-18 08:59 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591257-007		591257-008		591257-009		591257-010		591257-011		591257-012	
	Field Id:	MW-13-180703		MW-14-180703		Trac-4-180703		MW-3		MW-4		MW-5	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-03-18 10:05		Jul-03-18 10:25		Jul-03-18 10:30		Jul-03-18 10:50		Jul-03-18 11:05		Jul-03-18 11:20	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00	
	Analyzed:	Jul-06-18 19:00		Jul-06-18 19:10		Jul-06-18 19:21		Jul-06-18 20:13		Jul-06-18 20:44		Jul-06-18 20:54	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2280	25.0	1540	25.0	343	5.00	593	5.00	338	5.00	274	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4560	5.00	2660	5.00	1040	5.00	1310	5.00	831	5.00	1020	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591257

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Lea County, NM

Date Received in Lab: Thu Jul-05-18 08:59 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591257-013		591257-014		591257-015		591257-016		591257-017		591257-018	
	Field Id:	MW-6		MW-11		MW-25		Livermore		MW-30		MW-27	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-03-18 11:30		Jul-03-18 11:40		Jul-03-18 11:55		Jul-03-18 12:10		Jul-03-18 12:30		Jul-03-18 13:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-06-18 16:00		Jul-10-18 10:30	
	Analyzed:	Jul-06-18 21:04		Jul-06-18 21:15		Jul-06-18 21:25		Jul-06-18 21:35		Jul-06-18 21:46		Jul-10-18 13:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		402	5.00	7940	50.0	23600	100	2560	25.0	2280	25.0	2510	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 10:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1340	5.00	11800	5.00	37600	5.00	4580	5.00	3650	5.00	4790	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591257

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Lea County, NM

Date Received in Lab: Thu Jul-05-18 08:59 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591257-019		591257-020		591257-021		591257-022		591257-023		591257-024	
	Field Id:	MW-10		MW-24		MW-31		MW-12		MW-18		DUP-1	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-03-18 14:00		Jul-03-18 14:10		Jul-03-18 14:25		Jul-03-18 14:35		Jul-03-18 14:45		Jul-03-18 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 10:30	
	Analyzed:	Jul-10-18 13:20		Jul-10-18 13:30		Jul-10-18 14:01		Jul-10-18 14:12		Jul-10-18 14:22		Jul-10-18 14:32	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5340	25.0	4140	25.0	12100	50.0	13200	100	22000	100	6050	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 10:00		Jul-06-18 10:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		11000	5.00	8210	5.00	19800	5.00	20200	5.00	38500	5.00	10000	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591257

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Lea County, NM

Date Received in Lab: Thu Jul-05-18 08:59 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	591257-025						
	Field Id:	DUP-2						
	Depth:							
	Matrix:	GROUND WATER						
	Sampled:	Jul-03-18 00:00						
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 10:30						
	Analyzed:	Jul-10-18 14:43						
	Units/RL:	mg/L	RL					
Chloride		327	5.00					
TDS by SM2540C	***Extracted:***							
	Analyzed:	Jul-06-18 13:00						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		1060	5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 591257 **Project ID:** 055270

Lab Batch #: 3055643 **Sample:** 3055643-1-BKS **Matrix:** Water

Date Analyzed: 07/06/2018 **Date Prepared:** 07/06/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	976	98	80-120	

Lab Batch #: 3055862 **Sample:** 3055862-1-BKS **Matrix:** Water

Date Analyzed: 07/06/2018 **Date Prepared:** 07/06/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	986	99	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 591257, 591257 **Project ID:** 055270

Analyst: SCM **Date Prepared:** 07/06/2018 **Date Analyzed:** 07/06/2018

Lab Batch ID: 3055786 **Sample:** 7657995-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	23.3	93	25.0	23.4	94	0	90-110	20	

Analyst: SCM **Date Prepared:** 07/10/2018 **Date Analyzed:** 07/10/2018

Lab Batch ID: 3056077 **Sample:** 7658126-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	25.0	100	25.0	25.1	100	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 591257 **Project ID:** 055270

Lab Batch ID: 3055786 **QC- Sample ID:** 591344-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/06/2018 **Date Prepared:** 07/06/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	18.2	25.0	42.9	99	25.0	43.0	99	0	90-110	20	

Lab Batch ID: 3055786 **QC- Sample ID:** 591445-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 07/06/2018 **Date Prepared:** 07/06/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	186	125	316	104	125	317	105	0	90-110	20	

Lab Batch ID: 3056077 **QC- Sample ID:** 591445-003 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	14.3	25.0	38.5	97	25.0	38.6	97	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 591257 **Project ID:** 055270

Lab Batch ID: 3056077 **QC- Sample ID:** 591602-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	8.87	25.0	33.5	99	25.0	33.6	99	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 591257

Lab Batch #: 3055643 **Project ID:** 055270

Date Analyzed: 07/06/2018 10:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591257-001 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	1650	1680	2	10	

Lab Batch #: 3055643

Date Analyzed: 07/06/2018 10:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591257-020 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	8210	8860	8	10	

Lab Batch #: 3055862

Date Analyzed: 07/06/2018 13:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591257-021 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	19800	19500	2	10	

Lab Batch #: 3055862

Date Analyzed: 07/06/2018 13:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591377-015 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

SAMPLE / SAMPLE DUPLICATE RECOVERY					
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	5750	5560	3	10	

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)
Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 882 of 1515

CHAIN OF CUSTODY

Page 1 Of 3

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

Dallas Texas (214-902-0300) | Norcross, Georgia (770-449-8800) | Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # | Xenco Job # 591257

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com | Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name Joshua Sharkey Glenn Burney

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Lea County, NM
Invoice To:
PO Number:

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-15 - 180703	—	07/03/18	0905	GW	9								X	X	X	
2	MW-16 -180703	—		0920													
3	MW-21 -180703	—		0930													
4	MW-17 -180703	—		0940													
5	MW-22 -180703	—		1000													
6	MW-23 -180703	—		0955													
7	MW-13 -180703	—		1005													
8	MW-14 - 180703	—		1025													
9	Trac-4 -180703	—	V	1030	V	V								V	V	V	
10	~~MW-2~~ (J5)																

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	07/05/18 0830	[illegible] 7/5 0830	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 2.3 Thermo. Corr. Factor 1.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 16 of 19

Page 883 of 1515

CHAIN OF CUSTODY

Page 2 Of 3

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

Dallas Texas (214-902-0300) | Norcross, Georgia (770-449-8800) | Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # | Xenco Job # 591757

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com | Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Joshua Sharkey Glenn Quinney

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-3	—	07/03/18	1050	GW	1								X	X	X	
2	MW-4	—		1105													
3	MW-5	—		1120													
4	MW-6	—		1130													
5	MW-11	—		1140													
6	MW-26	—		1155													
7	Livermore	—		1210													
8	MW-30	—		1230													
9	MW-27	—		1345													
10	MW-10	—		1400													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	07/05/18 0830	Received	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: Y

Cooler Temp. 2.3 | Thermo. Corr. Factor NB F-0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 17 of 19

Page 884 of 1515

CHAIN OF CUSTODY

Page 3 Of 3

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 591757

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Joshua Sharma Clem Quinney

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-24	—	~~07/06/18~~ 07/03/18	1410	GW	4								X	X	X	
2	MW-31	—	07/02/18	1425													
3	MW-13	—		1435													
4	MW-18	—		1445													
5	Dup-1	—		—													
6	Dup-2	—		—													
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler: 1 Joshua Sharma	Date Time: 07/05/18 0830	Received By: 1	Relinquished By: 2	Date Time:	Received By: 2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 2.3 NB / Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 18 of 19

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/05/2018 08:59:00 AM

Work Order #: 591257

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: 213315

Checklist completed by: Brianna Teel — Date: 07/05/2018

Checklist reviewed by: Kelsey Brooks — Date: 07/06/2018

Analytical Report 591377

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

18-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-JUL-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **591377**
Dollarhide
Project Address: Las County, NM

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 591377. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 591377 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 591377

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-19-W-180705	W	07-05-18 10:50		591377-001
MW-26-W-180705	W	07-05-18 11:00		591377-002
MW-20-W-180705	W	07-05-18 11:20		591377-003
45-F-1-MW-W-180705	W	07-05-18 11:35		591377-004
45-FF-MW-W-180705	W	07-05-18 11:40		591377-005
45-E-2-MW-W-180705	W	07-05-18 11:45		591377-006
45-E-1-MW-W-180705	W	07-05-18 11:55		591377-007
44-J-3-MW-W-180705	W	07-05-18 12:05		591377-008
44-J-5-MW-W-180705	W	07-05-18 12:15		591377-009
44-J-4-MW-W-180705	W	07-05-18 11:25		591377-010
44-J-1-MW-W-180705	W	07-05-18 12:35		591377-011
44-I-1-MW-W-180705	W	07-05-18 12:45		591377-012
44-J-2-MW-W-180705	W	07-05-18 13:00		591377-013
43-K-1-MW-W-180705	W	07-05-18 13:05		591377-014
45-E-3-MW-W-180705	W	07-05-18 13:15		591377-015
DHU-FWS-W-180705	W	07-05-18 14:00		591377-016
MW-8-W-180705	W	07-05-18 14:15		591377-017
MW-9-W-180705	W	07-05-18 14:30		591377-018
58-B-2-MW-W-18705	W	07-05-18 14:40		591377-019
58-B-1-MW-W-180705	W	07-05-18 00:00		591377-020
DUP-3-W-180705	W	07-05-18 00:00		591377-021

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *591377*

Report Date: *18-JUL-18*
Date Received: *07/06/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 591377

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Las County, NM

Date Received in Lab: Fri Jul-06-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591377-001		591377-002		591377-003		591377-004		591377-005		591377-006	
	Field Id:	MW-19-W-180705		MW-26-W-180705		MW-20-W-180705		45-F-1-MW-W-180705		45-FF-MW-W-180705		45-E-2-MW-W-180705	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-05-18 10:50		Jul-05-18 11:00		Jul-05-18 11:20		Jul-05-18 11:35		Jul-05-18 11:40		Jul-05-18 11:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 10:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30	
	Analyzed:	Jul-10-18 17:01		Jul-10-18 17:12		Jul-10-18 17:22		Jul-10-18 18:55		Jul-10-18 19:05		Jul-10-18 19:16	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		6580	50.0	1210	25.0	1150	10.0	923	10.0	5310	25.0	1790	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		11500	5.00	2810	5.00	2160	5.00	1840	5.00	9090	5.00	3130	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591377

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Las County, NM

Date Received in Lab: Fri Jul-06-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591377-007		591377-008		591377-009		591377-010		591377-011		591377-012	
	Field Id:	45-E-1-MW-W-180705		44-J-3-MW-W-180705		44-J-5-MW-W-180705		44-J-4-MW-W-180705		44-J-1-MW-W-180705		44-I-1-MW-W-180705	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-05-18 11:55		Jul-05-18 12:05		Jul-05-18 12:15		Jul-05-18 11:25		Jul-05-18 12:35		Jul-05-18 12:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30	
	Analyzed:	Jul-10-18 19:26		Jul-10-18 19:57		Jul-10-18 20:07		Jul-10-18 20:18		Jul-10-18 20:28		Jul-10-18 20:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2530	25.0	5290	25.0	4060	25.0	4520	25.0	4300	25.0	3170	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4220	5.00	9230	5.00	6600	5.00	7430	5.00	6910	5.00	5450	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591377

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Las County, NM

Date Received in Lab: Fri Jul-06-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591377-013		591377-014		591377-015		591377-016		591377-017		591377-018	
	Field Id:	44-J-2-MW-W-180705		43-K-1-MW-W-180705		45-E-3-MW-W-180705		DHU-FWS-W-180705		MW-8-W-180705		MW-9-W-180705	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-05-18 13:00		Jul-05-18 13:05		Jul-05-18 13:15		Jul-05-18 14:00		Jul-05-18 14:15		Jul-05-18 14:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30	
	Analyzed:	Jul-10-18 21:20		Jul-10-18 21:30		Jul-10-18 22:01		Jul-10-18 22:12		Jul-10-18 22:22		Jul-10-18 22:32	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5050	25.0	7840	50.0	3360	25.0	593	25.0	868	10.0	2880	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-06-18 13:00		Jul-06-18 13:00		Jul-06-18 13:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		8000	5.00	12700	5.00	5750	5.00	2710	5.00	2350	5.00	4250	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591377

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: Las County, NM

Date Received in Lab: Fri Jul-06-18 09:00 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	591377-019		591377-020		591377-021					
	Field Id:	58-B-2-MW-W-18705		58-B-1-MW-W-180705		DUP-3-W-180705					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	Jul-05-18 14:40		Jul-05-18 00:00		Jul-05-18 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-10-18 14:30		Jul-10-18 14:30		Jul-10-18 14:30					
	Analyzed:	Jul-10-18 22:43		Jul-10-18 22:53		Jul-10-18 23:03					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		3900	25.0	6440	25.0	593	25.0				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		6410	5.00	10000	5.00	2860	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 591377 **Project ID:** 055270

Lab Batch #: 3055862 **Sample:** 3055862-1-BKS **Matrix:** Water

Date Analyzed: 07/06/2018 **Date Prepared:** 07/06/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	986	99	80-120	

Lab Batch #: 3055900 **Sample:** 3055900-1-BKS **Matrix:** Water

Date Analyzed: 07/09/2018 **Date Prepared:** 07/09/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	977	98	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 591377 **Project ID:** 055270

Analyst: SCM **Date Prepared:** 07/10/2018 **Date Analyzed:** 07/10/2018

Lab Batch ID: 3056077 **Sample:** 7658126-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	25.0	100	25.0	25.1	100	0	90-110	20	

Analyst: SCM **Date Prepared:** 07/10/2018 **Date Analyzed:** 07/10/2018

Lab Batch ID: 3056068 **Sample:** 7658127-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	24.3	97	25.0	24.4	98	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 591377 **Project ID:** 055270

Lab Batch ID: 3056068 **QC- Sample ID:** 591600-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	16.7	25.0	40.4	95	25.0	40.5	95	0	90-110	20	

Lab Batch ID: 3056068 **QC- Sample ID:** 591601-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	13.9	25.0	39.2	101	25.0	39.2	101	0	90-110	20	

Lab Batch ID: 3056077 **QC- Sample ID:** 591445-003 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	14.3	25.0	38.5	97	25.0	38.6	97	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 591377 **Project ID:** 055270

Lab Batch ID: 3056077 **QC- Sample ID:** 591602-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/10/2018 **Date Prepared:** 07/10/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	8.87	25.0	33.5	99	25.0	33.6	99	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 591377

Lab Batch #: 3055862 **Project ID:** 055270

Date Analyzed: 07/06/2018 13:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591257-021 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	19800	19500	2	10	

Lab Batch #: 3055862

Date Analyzed: 07/06/2018 13:00 **Date Prepared:** 07/06/2018 **Analyst:** OJS

QC- Sample ID: 591377-015 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	5750	5560	3	10	

Lab Batch #: 3055900

Date Analyzed: 07/09/2018 11:00 **Date Prepared:** 07/09/2018 **Analyst:** OJS

QC- Sample ID: 591377-016 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	2710	2860	5	10	

Lab Batch #: 3055900

Date Analyzed: 07/09/2018 11:00 **Date Prepared:** 07/09/2018 **Analyst:** OJS

QC- Sample ID: 591503-014 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	1160	1130	3	10	

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 900 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800) **Lakeland, Florida (863-646-8526)**

Norcross, Georgia (770-449-8800) **Tampa, Florida (813-620-2000)**

www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 3

Xenco Quote # **Xenco Job #** 591377

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com **Phone No:** 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glenn Quinney Joshua Sharkey

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	MW-19 - W - 180705	—	07/05/18	1050	GW	1								X	X	X	
2	MW-26 - W - 180705	—		1100													
3	MW-20 - W - 180705	—		1130													
4	45-F-1 - MW - W - 180705	—		1135													
5	45-FF - MW - W - 180705	—		1140													
6	45-E-2 - MW - W - 180705	—		1145													
7	45-E-1 - MW - W - 180705	—		1155													
8	44-J-3 - MW - W - 180705	—		1205													
9	44-J-5 - MW - W - 180705	—		1215													
10	44-J-4 - MW - W - 180705	—		1225													

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	07-06-18 0900	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 1.4 Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.001
Page 15 of 18
Released to Imaging: 11/21/2023 10:32:34 AM

Page 901 of 1515

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 2 Of 3

Setting the Standard since 1990

Stafford,Texas (281-240-4200) | Odessa, Texas (432-563-1800) | Lakeland, Florida (863-646-8526)

Dallas Texas (214-902-0300) | Norcross, Georgia (770-449-8800) | Tampa, Florida (813-620-2000)

Service Center - San Antonio, Texas (210-509-3334) www.xenco.com

Xenco Quote # | Xenco Job # 591377

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com | Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glenn Quinney Joshua Sharkey

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	44-J-1-MW-W-180705	—	07/05/18	1235	GW	1								X	X	X	
2	44-I-1-MW-W-180705	~		1245													
3	44-J-2-MW-W-180705	—		1300													
4	43-K-1-MW-W-180705	—		1305													
5	45-E-3-MW-W-180705	—		1315													
6	~~MW-7-W-180705~~ (J3)	—															Dry
7	DHV-FWS-W-180705	~		1400													
8	MW-8-W-180705	—		1415													
9	MW-9-W-180705	~		1430													
10	58-B-2-MW-W-180706	~		1440													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [X] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	07-06-18 0900	1	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X
			5			Cooler Temp. 1.4 Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 16 of 18

Page 902 of 1515

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 3 Of 3

Setting the Standard since 1990

Stafford,Texas (281-240-4200)
Dallas Texas (214-902-0300)
Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote # | Xenco Job # 591377

Client / Reporting Information

Company Name / Branch: GHD-Midland
Company Address: 2135 S Loop 250 W, Midland, TX 79703
Email: christopher.knight@ghd.com
Phone No: 512-506-8803
Project Contact: Chris Knight
Samplers's Name: Glenn Quinney Joshua Sharkey

Project Information

Project Name/Number: Dollarhide/055270
Project Location: Lea County, NM
Invoice To:
PO Number:

Matrix Codes

S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW = Ocean/Sea Water
W = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: TDS	Chloride	Field Comments
1	58-B-1-MW-W-180705	—	07/05/18	1450	GW	1								X	X	X	
2	DUP-3-W-180706	—	07/05/18	—	GW	1								X	X	X	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	07-06-18 0900		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
				4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X — Cooler Temp. 1-4 — Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 17 of 18

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/06/2018 09:00:00 AM

Work Order #: 591377

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: 213315

Checklist completed by: Brianna Teel Date: 07/06/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 07/06/2018

Kelsey Brooks

Analytical Report 591503

for

GHD Services, INC- Midland

Project Manager: Chris Knight

Dollarhide

055270

18-JUL-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-26), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-15)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

18-JUL-18

Project Manager: **Chris Knight**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **591503**
Dollarhide
Project Address: New Mexico

Chris Knight:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 591503. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 591503 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 591503

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
58-B-3-MW-W-180706	W	07-06-18 11:15		591503-001
MW-29-W-180706	W	07-06-18 11:30		591503-002
MW-28-W-180706	W	07-06-18 11:40		591503-003
NM-MW-11-W-180706	W	07-06-18 12:00		591503-004
NM-MW-13-W-180706	W	07-06-18 12:20		591503-005
NM-MW-10-W-180706	W	07-06-18 12:40		591503-006
NM-MW-12-W-180706	W	07-06-18 13:00		591503-007
Wilson Ranch Well-W-180706	W	07-06-18 13:10		591503-008
Smith Residence-W-180706	W	07-06-18 13:20		591503-009
NM-MW-9-W-180706	W	07-06-18 13:30		591503-010
NM-MW-6-W-180706	W	07-06-18 12:45		591503-011
NM-MW-5-W-180706	W	07-06-18 13:50		591503-012
NM-MW-1-W-180706	W	07-06-18 13:55		591503-013
NM-MW-2-W-180706	W	07-06-18 14:00		591503-014
NM-MW-3-W-180706	W	07-06-18 14:10		591503-015
NM-MW-7-W-180706	W	07-06-18 14:20		591503-016
RRR Ranch Windmill-W-180706	W	07-06-18 14:30		591503-017
NM-MW-4-W-180706	W	07-06-18 14:45		591503-018
NM-MW-8-W-180706	W	07-06-18 15:00		591503-019
DUP-4-W 180706	W	07-06-18 00:00		591503-020
Dup-5-W-180706	W	07-06-18 00:00		591503-021

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *591503*

Report Date: *18-JUL-18*
Date Received: *07/09/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 591503

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Mon Jul-09-18 09:30 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591503-001		591503-002		591503-003		591503-004		591503-005		591503-006	
	Field Id:	58-B-3-MW-W-180706		MW-29-W-180706		MW-28-W-180706		NM-MW-11-W-180706		NM-MW-13-W-180706		NM-MW-10-W-180706	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-06-18 11:15		Jul-06-18 11:30		Jul-06-18 11:40		Jul-06-18 12:00		Jul-06-18 12:20		Jul-06-18 12:40	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30	
	Analyzed:	Jul-11-18 11:26		Jul-11-18 11:36		Jul-11-18 11:47		Jul-11-18 11:57		Jul-11-18 12:28		Jul-11-18 12:38	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		976	10.0	397	5.00	1610	25.0	143	5.00	184	5.00	308	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1580	5.00	860	5.00	2540	5.00	1820	5.00	1050	5.00	1450	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591503

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Mon Jul-09-18 09:30 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591503-007		591503-008		591503-009		591503-010		591503-011		591503-012	
	Field Id:	NM-MW-12-W-180706		Wilson Ranch Well-W-1807		Smith Residence-W-180706		NM-MW-9-W-180706		NM-MW-6-W-180706		NM-MW-5-W-180706	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-06-18 13:00		Jul-06-18 13:10		Jul-06-18 13:20		Jul-06-18 13:30		Jul-06-18 12:45		Jul-06-18 13:50	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30	
	Analyzed:	Jul-11-18 12:49		Jul-11-18 12:59		Jul-11-18 13:09		Jul-11-18 13:51		Jul-11-18 14:01		Jul-11-18 14:32	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		665	5.00	1330	10.0	1340	10.0	252	2.50	134	2.50	140	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 11:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1250	5.00	2190	5.00	2140	5.00	785	5.00	801	5.00	1240	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591503

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Mon Jul-09-18 09:30 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	591503-013		591503-014		591503-015		591503-016		591503-017		591503-018	
	Field Id:	NM-MW-1-W-180706		NM-MW-2-W-180706		NM-MW-3-W-180706		NM-MW-7-W-180706		RRR Ranch Windmill-W-18(		NM-MW-4-W-180706	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Jul-06-18 13:55		Jul-06-18 14:00		Jul-06-18 14:10		Jul-06-18 14:20		Jul-06-18 14:30		Jul-06-18 14:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30		Jul-11-18 08:30	
	Analyzed:	Jul-11-18 14:42		Jul-11-18 14:53		Jul-11-18 15:03		Jul-11-18 15:13		Jul-11-18 15:24		Jul-11-18 15:34	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		275	5.00	679	5.00	220	2.50	2330	25.0	1670	25.0	40.6	2.50
TDS by SM2540C	***Extracted:***												
	Analyzed:	Jul-09-18 11:00		Jul-09-18 11:00		Jul-09-18 17:00		Jul-09-18 17:00		Jul-09-18 17:00		Jul-09-18 17:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1350	5.00	1160	5.00	625	5.00	3780	5.00	3030	5.00	414	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 591503

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Chris Knight
Project Location: New Mexico

Date Received in Lab: Mon Jul-09-18 09:30 am
Report Date: 18-JUL-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	591503-019		591503-020		591503-021					
	Field Id:	NM-MW-8-W-180706		DUP-4-W 180706		Dup-5-W-180706					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	Jul-06-18 15:00		Jul-06-18 00:00		Jul-06-18 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Jul-11-18 12:15		Jul-11-18 12:15		Jul-11-18 12:15					
	Analyzed:	Jul-11-18 17:33		Jul-11-18 17:43		Jul-11-18 17:53					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		5960	25.0	1370	10.0	213	2.50				
TDS by SM2540C	***Extracted:***										
	Analyzed:	Jul-09-18 17:00		Jul-09-18 17:00		Jul-09-18 17:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		9620	5.00	2220	5.00	631	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: Dollarhide

Work Order #: 591503 **Project ID:** 055270

Lab Batch #: 3055900 **Sample:** 3055900-1-BKS **Matrix:** Water

Date Analyzed: 07/09/2018 **Date Prepared:** 07/09/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	977	98	80-120	

Lab Batch #: 3056059 **Sample:** 3056059-1-BKS **Matrix:** Water

Date Analyzed: 07/09/2018 **Date Prepared:** 07/09/2018 **Analyst:** OJS

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total Dissolved Solids	<5.00	1000	979	98	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Dollarhide

Work Order #: 591503, 591503 **Project ID:** 055270

Analyst: SCM **Date Prepared:** 07/11/2018 **Date Analyzed:** 07/11/2018

Lab Batch ID: 3056215 **Sample:** 7658207-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	24.3	97	25.0	24.3	97	0	90-110	20	

Analyst: SCM **Date Prepared:** 07/11/2018 **Date Analyzed:** 07/11/2018

Lab Batch ID: 3056219 **Sample:** 7658209-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.500	25.0	25.0	100	25.0	25.0	100	0	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Dollarhide

Work Order # : 591503 **Project ID:** 055270

Lab Batch ID: 3056215 **QC- Sample ID:** 591603-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/11/2018 **Date Prepared:** 07/11/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	21.5	25.0	47.9	106	25.0	48.0	106	0	90-110	20	

Lab Batch ID: 3056215 **QC- Sample ID:** 591745-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/11/2018 **Date Prepared:** 07/11/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	4.82	25.0	29.1	97	25.0	29.2	98	0	90-110	20	

Lab Batch ID: 3056219 **QC- Sample ID:** 591747-001 S **Batch #:** 1 **Matrix:** Drinking Water

Date Analyzed: 07/11/2018 **Date Prepared:** 07/11/2018 **Analyst:** SCM

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	5.66	25.0	31.5	103	25.0	31.5	103	0	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: Dollarhide

Work Order #: 591503

Lab Batch #: 3055900 **Project ID:** 055270

Date Analyzed: 07/09/2018 11:00 **Date Prepared:** 07/09/2018 **Analyst:** OJS

QC- Sample ID: 591377-016 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	2710	2860	5	10	

Lab Batch #: 3055900

Date Analyzed: 07/09/2018 11:00 **Date Prepared:** 07/09/2018 **Analyst:** OJS

QC- Sample ID: 591503-014 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	1160	1130	3	10	

Lab Batch #: 3056059

Date Analyzed: 07/09/2018 17:00 **Date Prepared:** 07/09/2018 **Analyst:** OJS

QC- Sample ID: 591503-015 D **Batch #:** 1 **Matrix:** Ground Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	%RPD	RPD Limit	Flag
Total Dissolved Solids	625	614	2	10	

Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |

All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Page 917 of 1515

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 1 Of 3

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 591503

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glen Quincy Joshua Sharkey

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	SB-B-3-MW-W- 180706	—	7/6/18	1115	GW	1								X	X	X	
2	MW-29-W- 180706	—		1130													
3	MW-28-W- 180706	—		1140													
4	NM-MW-11-W- 180706	—		1200													
5	NM-MW-13-W- 180706	—		1220													
6	NM-MW-10-W- 180706	—		1240													
7	NM-MW-12-W- 180706	—		1300													
8	Wilson Ranch Well-W- 180706	—		1310													
9	Smith Residence-W- 180706	—		1326													
10	NM-MW-9-W- 180706	—		1330													

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☑ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Sharkey	7-7-18 0930	1	2		2
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 2.5 Corr 0.0 Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.001
Page 14 of 17
Released to Imaging: 11/21/2023 10:32:34 AM

Page 918 of 1515

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 2 of 3

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 591503

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glenn Quincy Joshua Shanks

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	NM-MW-6-W-180706	—	7/6/18	1345	GW	1								X	X	X	
2	NM-MW-5-W-180706	—		1350													
3	NM-MW-1-W-180706	—		1355													
4	NM-MW-2-W-180706	—		1400													
5	NM-MW-3-W-180706	—		1410													
6	NM-MW-7-W-180706	—		1420													
7	RRR Ranch Windmill-W-180706	—		1430													
8	NM-MW-4-W-180706	—		1445													
9	NM-MW-8-W-180706	—		1500													
10	DUP-4-W-180706	—		—													

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Joshua Shanks	7-8-18 0930		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo Corr. Factor
			5			☑ 2.5 2.8 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM

Released to Imaging: 11/21/2023 10:32:34 AM

Final 1.001

Page 15 of 17

Page 919 of 1515

XENCO LABORATORIES

CHAIN OF CUSTODY

Page 3 Of 3

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 591505

Client / Reporting Information

Company Name / Branch: GHD-Midland

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: christopher.knight@ghd.com

Phone No: 512-506-8803

Project Contact: Chris Knight

Samplers's Name Glenn Quimby Joshua Sharkey

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Lea County, NM

Invoice To:

PO Number:

Analytical Information

Matrix Codes

S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
W = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TDS	Chloride	Field Comments
1	Dur-5-W-180706	-	7/6/18	-	GW	1								X	X	X	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☑ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished By	Date Time	Received By	Relinquished By	Date Time	Received By
1	Joshua Sharkey	7-9-18 0930		2		2
3			3	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice: ☑

Cooler Temp. 2.5 RE Thermo. Corr. Factor 0.0

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Final 1.001
Page 16 of 17
Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 07/09/2018 09:30:00 AM

Work Order #: 591503

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: 213315

Checklist completed by: Brianna Teel Date: 07/09/2018

Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 07/09/2018

Kelsey Brooks

Analytical Report 601428

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

15-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

Table of Contents

Cover Page	1
Cover Letter	3
Sample ID Cross Reference	4
Case Narrative	6
Certificate of Analysis Summary	7
Certificate of Analysis (Detailed Report)	16
Explanation of Qualifiers (Flags)	65
QC Summary	66
Chain of Custody	70
Sample Receipt Conformance Report	75

15-OCT-18

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **601428**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 601428. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 601428 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-8-W-181003	W	10-03-18 09:25		601428-001
NM-MW-4-W-181003	W	10-03-18 09:35		601428-002
RRR-Ranch-W-181003	W	10-03-18 09:55		601428-003
NM-MW-7-W-181003	W	10-03-18 10:05		601428-004
NM-MW-3-W-181003	W	10-03-18 10:15		601428-005
NM-MW-2-W-181003	W	10-03-18 10:30		601428-006
NM-MW-1-W-181003	W	10-03-18 10:35		601428-007
NM-MW-5-W-181003	W	10-03-18 10:45		601428-008
NM-MW-6-W-181003	W	10-03-18 11:00		601428-009
NM-MW-11-W-181003	W	10-03-18 11:10		601428-010
NM-MW-13-W-181003	W	10-03-18 11:40		601428-011
NM-MW-10-W-181003	W	10-03-18 12:05		601428-012
NM-MW-12-W-181003	W	10-03-18 12:25		601428-013
Wilson-W-181003	W	10-03-18 12:35		601428-014
NM-MW-9-W-181003	W	10-03-18 12:50		601428-015
Smith-W-181003	W	10-03-18 13:00		601428-016
MW-29-W-181003	W	10-03-18 13:15		601428-017
MW-28-W-181003	W	10-03-18 13:25		601428-018
MW-9-W-181003	W	10-03-18 14:00		601428-019
Wilson-WD-181003	W	10-03-18 00:00		601428-020
MW-8-W-181003	W	10-03-18 14:15		601428-021
DHU-FWS-W-181003	W	10-03-18 14:25		601428-022
MW-27-W-181003	W	10-03-18 14:30		601428-023
MW-20-W-181003	W	10-03-18 14:40		601428-024
MW-10-W-181003	W	10-03-18 14:55		601428-025
MW-19-W-181004	W	10-04-18 09:35		601428-026
MW-18-W-181004	W	10-04-18 09:45		601428-027
MW-12-W-181004	W	10-04-18 09:55		601428-028
MW-24-W-181004	W	10-04-18 10:05		601428-029
MW-26-W-181004	W	10-04-18 10:15		601428-030
MW-31-W-181004	W	10-04-18 10:25		601428-031
MW-25-W-181004	W	10-04-18 10:35		601428-032
MW-11-W-181004	W	10-04-18 10:45		601428-033
MW-6-W-181004	W	10-04-18 10:55		601428-034
MW-5-W-181004	W	10-04-18 11:05		601428-035
MW-3-W-181004	W	10-04-18 11:15		601428-036
TRACT-4-W-181004	W	10-04-18 11:25		601428-037
MW-14-W-181004	W	10-04-18 11:40		601428-038
MW-4-W-181004	W	10-04-18 11:50		601428-039
TRACT-4-WD-181004	W	10-04-18 00:00		601428-040
MW-13-W-181004	W	10-04-18 12:15		601428-041
MW-30-W-181004	W	10-04-18 12:25		601428-042
Livermore-W-181004	W	10-04-18 12:35		601428-043

Sample Cross Reference 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

MW-23-W-181004	W	10-04-18 12:45	601428-044
MW-22-W-181004	W	10-04-18 12:50	601428-045
MW-17-W-181004	W	10-04-18 13:00	601428-046
MW-21-W-181004	W	10-04-18 13:05	601428-047
MW-16-W-181004	W	10-04-18 13:20	601428-048
MW-15-W-181004	W	10-04-18 13:30	601428-049

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *601428*

Report Date: *15-OCT-18*
Date Received: *10/04/2018*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3065715 Inorganic Anions by EPA 300/300.1
Lab Sample ID 601428-017 and 601428-034 were randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 601428-016, -017, -018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3065955 Inorganic Anions by EPA 300/300.1
Lab Sample ID 601428-048 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 601428-036, -037, -038, -039, -040, -041, -042, -043, -044, -045, -046, -047, -048, -049.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	601428-001		601428-002		601428-003		601428-004		601428-005		601428-006	
	Field Id:	NM-MW-8-W-181003		NM-MW-4-W-181003		RRR-Ranch-W-181003		NM-MW-7-W-181003		NM-MW-3-W-181003		NM-MW-2-W-181003	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-03-18 09:25		Oct-03-18 09:35		Oct-03-18 09:55		Oct-03-18 10:05		Oct-03-18 10:15		Oct-03-18 10:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00	
	Analyzed:	Oct-05-18 14:43		Oct-05-18 15:14		Oct-05-18 15:25		Oct-05-18 15:35		Oct-05-18 15:45		Oct-05-18 15:56	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		6260	25.0	39.7	2.50	1660	25.0	2380	25.0	246	2.50	674	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		11000	5.00	411	5.00	3000	5.00	4050	5.00	708	5.00	1270	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Debbie Simmons
Project Manager

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	601428-007		601428-008		601428-009		601428-010		601428-011		601428-012	
	Field Id:	NM-MW-1-W-181003		NM-MW-5-W-181003		NM-MW-6-W-181003		NM-MW-11-W-181003		NM-MW-13-W-181003		NM-MW-10-W-181003	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-03-18 10:35		Oct-03-18 10:45		Oct-03-18 11:00		Oct-03-18 11:10		Oct-03-18 11:40		Oct-03-18 12:05	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00	
	Analyzed:	Oct-05-18 16:37		Oct-05-18 16:47		Oct-05-18 17:18		Oct-05-18 17:29		Oct-05-18 17:39		Oct-05-18 17:50	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		279	5.00	138	5.00	138	2.50	152	10.0	185	5.00	315	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1460	5.00	1290	5.00	833	5.00	1920	5.00	1110	5.00	1520	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Debbie Simmons
Project Manager

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	601428-013		601428-014		601428-015		601428-016		601428-017		601428-018	
	Field Id:	NM-MW-12-W-181003		Wilson-W-181003		NM-MW-9-W-181003		Smith-W-181003		MW-29-W-181003		MW-28-W-181003	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-03-18 12:25		Oct-03-18 12:35		Oct-03-18 12:50		Oct-03-18 13:00		Oct-03-18 13:15		Oct-03-18 13:25	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30	
	Analyzed:	Oct-05-18 18:00		Oct-05-18 18:10		Oct-05-18 18:21		Oct-08-18 17:54		Oct-08-18 17:23		Oct-08-18 18:04	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		668	5.00	1380	10.0	258	2.50	1310	10.0	409 X	5.00	1760	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-04-18 16:10		Oct-04-18 16:10		Oct-04-18 16:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1390	5.00	2680	5.00	799	5.00	2260	5.00	1070	5.00	3020	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	601428-019		601428-020		601428-021		601428-022		601428-023		601428-024	
	Field Id:	MW-9-W-181003		Wilson-WD-181003		MW-8-W-181003		DHU-FWS-W-181003		MW-27-W-181003		MW-20-W-181003	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-03-18 14:00		Oct-03-18 00:00		Oct-03-18 14:15		Oct-03-18 14:25		Oct-03-18 14:30		Oct-03-18 14:40	
Inorganic Anions by EPA 300/300.1	*Extracted:*	Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30	
	Analyzed:	Oct-08-18 18:14		Oct-08-18 18:25		Oct-08-18 18:56		Oct-08-18 19:06		Oct-08-18 19:16		Oct-08-18 19:27	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2910	25.0	1380	10.0	888	10.0	596	10.0	3030	25.0	1340	10.0
TDS by SM2540C	*Extracted:*												
	Analyzed:	Oct-04-18 16:10		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00		Oct-05-18 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4270	5.00	2590	5.00	2490	5.00	2830	5.00	4700	5.00	2490	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Debbie Simmons
Project Manager

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	601428-025		601428-026		601428-027		601428-028		601428-029		601428-030	
	Field Id:	MW-10-W-181003		MW-19-W-181004		MW-18-W-181004		MW-12-W-181004		MW-24-W-181004		MW-26-W-181004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-03-18 14:55		Oct-04-18 09:35		Oct-04-18 09:45		Oct-04-18 09:55		Oct-04-18 10:05		Oct-04-18 10:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30	
	Analyzed:	Oct-08-18 19:37		Oct-08-18 20:18		Oct-08-18 20:29		Oct-08-18 21:00		Oct-08-18 21:10		Oct-08-18 21:20	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		5880	25.0	6980	50.0	21100	100	15000	50.0	4850	25.0	1340	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		8570	5.00	11600	5.00	31600	5.00	24400	5.00	8870	5.00	2750	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	601428-031		601428-032		601428-033		601428-034		601428-035		601428-036	
	Field Id:	MW-31-W-181004		MW-25-W-181004		MW-11-W-181004		MW-6-W-181004		MW-5-W-181004		MW-3-W-181004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-04-18 10:25		Oct-04-18 10:35		Oct-04-18 10:45		Oct-04-18 10:55		Oct-04-18 11:05		Oct-04-18 11:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-08-18 15:30		Oct-09-18 16:00	
	Analyzed:	Oct-08-18 21:31		Oct-08-18 21:41		Oct-08-18 21:52		Oct-08-18 19:47		Oct-08-18 22:02		Oct-09-18 17:58	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		12800	50.0	26500	100	8310	50.0	404 X	5.00	278	5.00	626	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		19500	5.00	39000	5.00	12000	5.00	1450	5.00	1050	5.00	1310	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	601428-037		601428-038		601428-039		601428-040		601428-041		601428-042	
	Field Id:	TRACT-4-W-181004		MW-14-W-181004		MW-4-W-181004		TRACT-4-WD-181004		MW-13-W-181004		MW-30-W-181004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-04-18 11:25		Oct-04-18 11:40		Oct-04-18 11:50		Oct-04-18 00:00		Oct-04-18 12:15		Oct-04-18 12:25	
Inorganic Anions by EPA 300/300.1	*Extracted:*	Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00	
	Analyzed:	Oct-09-18 18:08		Oct-09-18 18:18		Oct-09-18 18:49		Oct-09-18 19:00		Oct-09-18 19:10		Oct-09-18 19:21	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		347	5.00	1690	25.0	350	5.00	392	5.00	2200	25.0	2550	25.0
TDS by SM2540C	*Extracted:*												
	Analyzed:	Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30		Oct-08-18 17:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1070	5.00	2620	5.00	883	5.00	1110	5.00	3900	5.00	3820	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	601428-043		601428-044		601428-045		601428-046		601428-047		601428-048	
	Field Id:	Livermore-W-181004		MW-23-W-181004		MW-22-W-181004		MW-17-W-181004		MW-21-W-181004		MW-16-W-181004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	Oct-04-18 12:35		Oct-04-18 12:45		Oct-04-18 12:50		Oct-04-18 13:00		Oct-04-18 13:05		Oct-04-18 13:20	
Inorganic Anions by EPA 300/300.1	*Extracted:*	Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00		Oct-09-18 16:00	
	Analyzed:	Oct-09-18 19:31		Oct-09-18 20:12		Oct-09-18 20:23		Oct-09-18 20:54		Oct-09-18 21:04		Oct-09-18 19:41	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2710	25.0	6090	25.0	14200	50.0	11300	50.0	7400	50.0	474 X	5.00
TDS by SM2540C	*Extracted:*												
	Analyzed:	Oct-08-18 17:30		Oct-08-18 17:30		Oct-09-18 10:30		Oct-09-18 10:30		Oct-09-18 10:30		Oct-09-18 10:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4020	5.00	8980	5.00	18700	5.00	17700	5.00	11400	5.00	1210	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Debbie Simmons
Project Manager

Final 1.000

Certificate of Analysis Summary 601428

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Thu Oct-04-18 03:30 pm
Report Date: 15-OCT-18
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	601428-049						
	Field Id:	MW-15-W-181004						
	Depth:							
	Matrix:	GROUND WATER						
	Sampled:	Oct-04-18 13:30						
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-09-18 16:00						
	Analyzed:	Oct-09-18 21:14						
	Units/RL:	mg/L	RL					
Chloride		1030	10.0					
TDS by SM2540C	***Extracted:***							
	Analyzed:	Oct-09-18 10:30						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		1740	5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Debbie Simmons
Project Manager

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-001 Date Collected: 10.03.18 09.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6260**	25.0	4.29	mg/L	10.05.18 14.43		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11000**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-002 Date Collected: 10.03.18 09.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.7**	2.50	0.429	mg/L	10.05.18 15.14		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**411**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR-Ranch-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-003 Date Collected: 10.03.18 09.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1660**	25.0	4.29	mg/L	10.05.18 15.25		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3000**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-004 Date Collected: 10.03.18 10.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2380**	25.0	4.29	mg/L	10.05.18 15.35		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4050**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-005 Date Collected: 10.03.18 10.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**246**	2.50	0.429	mg/L	10.05.18 15.45		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**708**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-006 Date Collected: 10.03.18 10.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**674**	5.00	0.858	mg/L	10.05.18 15.56		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1270**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-007 Date Collected: 10.03.18 10.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**279**	5.00	0.858	mg/L	10.05.18 16.37		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1460**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-008 Date Collected: 10.03.18 10.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**138**	5.00	0.858	mg/L	10.05.18 16.47		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1290**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-009 Date Collected: 10.03.18 11.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**138**	2.50	0.429	mg/L	10.05.18 17.18		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**833**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-010 Date Collected: 10.03.18 11.10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**152**	10.0	1.72	mg/L	10.05.18 17.29		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1920**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-011 Date Collected: 10.03.18 11.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	5.00	0.858	mg/L	10.05.18 17.39		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1110**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-012 Date Collected: 10.03.18 12.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**315**	5.00	0.858	mg/L	10.05.18 17.50		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1520**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-013 Date Collected: 10.03.18 12.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**668**	5.00	0.858	mg/L	10.05.18 18.00		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1390**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-014 Date Collected: 10.03.18 12.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1380**	10.0	1.72	mg/L	10.05.18 18.10		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2680**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-015 Date Collected: 10.03.18 12.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.05.18 12.00

Seq Number: 3065632

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**258**	2.50	0.429	mg/L	10.05.18 18.21		5

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**799**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-016 Date Collected: 10.03.18 13.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1310**	10.0	1.72	mg/L	10.08.18 17.54		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065594

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2260**	5.00	5.00	mg/L	10.04.18 16.10		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-017 Date Collected: 10.03.18 13.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**409**	5.00	0.858	mg/L	10.08.18 17.23	X	10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065594

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	10.04.18 16.10		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-018 Date Collected: 10.03.18 13.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1760**	25.0	4.29	mg/L	10.08.18 18.04		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065594

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3020**	5.00	5.00	mg/L	10.04.18 16.10		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-019 Date Collected: 10.03.18 14.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2910**	25.0	4.29	mg/L	10.08.18 18.14		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065594

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4270**	5.00	5.00	mg/L	10.04.18 16.10		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson-WD-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-020 Date Collected: 10.03.18 00.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1380**	10.0	1.72	mg/L	10.08.18 18.25		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2590**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-021 Date Collected: 10.03.18 14.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**888**	10.0	1.72	mg/L	10.08.18 18.56		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2490**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-022 Date Collected: 10.03.18 14.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**596**	10.0	1.72	mg/L	10.08.18 19.06		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2830**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-023 Date Collected: 10.03.18 14.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3030**	25.0	4.29	mg/L	10.08.18 19.16		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4700**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-024 Date Collected: 10.03.18 14.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	10.0	1.72	mg/L	10.08.18 19.27		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065597

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2490**	5.00	5.00	mg/L	10.05.18 12.00		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-181003** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-025 Date Collected: 10.03.18 14.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5880**	25.0	4.29	mg/L	10.08.18 19.37		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8570**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-026 Date Collected: 10.04.18 09.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6980**	50.0	8.58	mg/L	10.08.18 20.18		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11600**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-027 Date Collected: 10.04.18 09.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21100**	100	17.2	mg/L	10.08.18 20.29		200

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**31600**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-028 Date Collected: 10.04.18 09.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15000**	50.0	8.58	mg/L	10.08.18 21.00		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**24400**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-029 Date Collected: 10.04.18 10.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4850**	25.0	4.29	mg/L	10.08.18 21.10		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8870**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-030 Date Collected: 10.04.18 10.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1340**	25.0	4.29	mg/L	10.08.18 21.20		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2750**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-031 Date Collected: 10.04.18 10.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12800**	50.0	8.58	mg/L	10.08.18 21.31		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**19500**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-032 Date Collected: 10.04.18 10.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**26500**	100	17.2	mg/L	10.08.18 21.41		200

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**39000**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-033 Date Collected: 10.04.18 10.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8310**	50.0	8.58	mg/L	10.08.18 21.52		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**12000**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-034 Date Collected: 10.04.18 10.55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**404**	5.00	0.858	mg/L	10.08.18 19.47	X	10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1450**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-035 Date Collected: 10.04.18 11.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: SCM Date Prep: 10.08.18 15.30

Seq Number: 3065715

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**278**	5.00	0.858	mg/L	10.08.18 22.02		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1050**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-036 Date Collected: 10.04.18 11.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**626**	5.00	0.858	mg/L	10.09.18 17.58		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1310**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **TRACT-4-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-037 Date Collected: 10.04.18 11.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**347**	5.00	0.858	mg/L	10.09.18 18.08		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-038 Date Collected: 10.04.18 11.40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1690**	25.0	4.29	mg/L	10.09.18 18.18		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2620**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-039 Date Collected: 10.04.18 11.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**350**	5.00	0.858	mg/L	10.09.18 18.49		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**883**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **TRACT-4-WD-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-040 Date Collected: 10.04.18 00.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**392**	5.00	0.858	mg/L	10.09.18 19.00		10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1110**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-041 Date Collected: 10.04.18 12.15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2200**	25.0	4.29	mg/L	10.09.18 19.10		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3900**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-042 Date Collected: 10.04.18 12.25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2550**	25.0	4.29	mg/L	10.09.18 19.21		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3820**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-043 Date Collected: 10.04.18 12.35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2710**	25.0	4.29	mg/L	10.09.18 19.31		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4020**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-044 Date Collected: 10.04.18 12.45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6090**	25.0	4.29	mg/L	10.09.18 20.12		50

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065737

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8980**	5.00	5.00	mg/L	10.08.18 17.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-045 Date Collected: 10.04.18 12.50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14200**	50.0	8.58	mg/L	10.09.18 20.23		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065889

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**18700**	5.00	5.00	mg/L	10.09.18 10.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-046 Date Collected: 10.04.18 13.00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11300**	50.0	8.58	mg/L	10.09.18 20.54		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065889

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**17700**	5.00	5.00	mg/L	10.09.18 10.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-047 Date Collected: 10.04.18 13.05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7400**	50.0	8.58	mg/L	10.09.18 21.04		100

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065889

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11400**	5.00	5.00	mg/L	10.09.18 10.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-048 Date Collected: 10.04.18 13.20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**474**	5.00	0.858	mg/L	10.09.18 19.41	X	10

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065889

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1210**	5.00	5.00	mg/L	10.09.18 10.30		1

Certificate of Analytical Results 601428

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-181004** Matrix: Ground Water Date Received:10.04.18 15.30

Lab Sample Id: 601428-049 Date Collected: 10.04.18 13.30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SCM % Moisture:

Analyst: SCM Date Prep: 10.09.18 16.00

Seq Number: 3065955

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1030**	10.0	1.72	mg/L	10.09.18 21.14		20

Analytical Method: TDS by SM2540C

Tech: OJS % Moisture:

Analyst: OJS

Seq Number: 3065889

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1740**	5.00	5.00	mg/L	10.09.18 10.30		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 601428

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3065632 Matrix: Water Date Prep: 10.05.18
MB Sample Id: 7663627-1-BLK LCS Sample Id: 7663627-1-BKS LCSD Sample Id: 7663627-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.500	25.0	25.3	101	25.2	101	90-110	0	20	mg/L	10.05.18 13:21	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3065715 Matrix: Water Date Prep: 10.08.18
MB Sample Id: 7663760-1-BLK LCS Sample Id: 7663760-1-BKS LCSD Sample Id: 7663760-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.1	100	25.1	100	90-110	0	20	mg/L	10.08.18 17:02	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3065955 Matrix: Water Date Prep: 10.09.18
MB Sample Id: 7663856-1-BLK LCS Sample Id: 7663856-1-BKS LCSD Sample Id: 7663856-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0858	25.0	25.9	104	25.9	104	90-110	0	20	mg/L	10.09.18 16:56	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3065632 Matrix: Water Date Prep: 10.05.18
Parent Sample Id: 601373-015 MS Sample Id: 601373-015 S MSD Sample Id: 601373-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	59.4	125	195	108	195	108	90-110	0	20	mg/L	10.05.18 16:16	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3065632 Matrix: Drinking Water Date Prep: 10.05.18
Parent Sample Id: 601442-001 MS Sample Id: 601442-001 S MSD Sample Id: 601442-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	34.3	25.0	60.9	106	60.8	106	90-110	0	20	mg/L	10.05.18 13:52	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 601428

GHD Services, INC- Midland

Dollarhide

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3065715 Matrix: Ground Water Date Prep: 10.08.18
Parent Sample Id: 601428-017 MS Sample Id: 601428-017 S MSD Sample Id: 601428-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	409	250	709	120	712	121	90-110	0	20	mg/L	10.08.18 17:33	X

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3065715 Matrix: Ground Water Date Prep: 10.08.18
Parent Sample Id: 601428-034 MS Sample Id: 601428-034 S MSD Sample Id: 601428-034 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	404	250	710	122	711	123	90-110	0	20	mg/L	10.08.18 19:58	X

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3065955 Matrix: Ground Water Date Prep: 10.09.18
Parent Sample Id: 601428-048 MS Sample Id: 601428-048 S MSD Sample Id: 601428-048 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	474	250	775	120	783	124	90-110	1	20	mg/L	10.09.18 19:52	X

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3065955 Matrix: Water Date Prep: 10.09.18
Parent Sample Id: 601754-002 MS Sample Id: 601754-002 S MSD Sample Id: 601754-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	175	125	325	120	325	120	90-110	0	20	mg/L	10.09.18 17:27	X

Analytical Method: **TDS by SM2540C**
Seq Number: 3065594 Matrix: Water
MB Sample Id: 3065594-1-BLK LCS Sample Id: 3065594-1-BKS LCSD Sample Id: 3065594-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	962	96	972	97	80-120	1	10	mg/L	10.04.18 16:10	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 601428

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3065597 Matrix: Water
MB Sample Id: 3065597-1-BLK LCS Sample Id: 3065597-1-BKS LCSD Sample Id: 3065597-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	982	98	976	98	80-120	1	10	mg/L	10.05.18 12:00	

Analytical Method: TDS by SM2540C
Seq Number: 3065737 Matrix: Water
MB Sample Id: 3065737-1-BLK LCS Sample Id: 3065737-1-BKS LCSD Sample Id: 3065737-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	961	96	80-120	3	10	mg/L	10.08.18 17:30	

Analytical Method: TDS by SM2540C
Seq Number: 3065889 Matrix: Water
MB Sample Id: 3065889-1-BLK LCS Sample Id: 3065889-1-BKS LCSD Sample Id: 3065889-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	968	97	959	96	80-120	1	10	mg/L	10.09.18 10:30	

Analytical Method: TDS by SM2540C
Seq Number: 3065594 Matrix: Water
Parent Sample Id: 601368-001 MD Sample Id: 601368-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	3080	3130	2	10	mg/L	10.04.18 16:10	

Analytical Method: TDS by SM2540C
Seq Number: 3065594 Matrix: Ground Water
Parent Sample Id: 601428-019 MD Sample Id: 601428-019 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4270	4320	1	10	mg/L	10.04.18 16:10	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 601428

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3065597 Matrix: Ground Water
Parent Sample Id: 601428-001 MD Sample Id: 601428-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	11000	10600	4	10	mg/L	10.05.18 12:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3065597 Matrix: Ground Water
Parent Sample Id: 601428-024 MD Sample Id: 601428-024 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2490	2640	6	10	mg/L	10.05.18 12:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3065737 Matrix: Ground Water
Parent Sample Id: 601428-025 MD Sample Id: 601428-025 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	8570	8790	3	10	mg/L	10.08.18 17:30	

Analytical Method: **TDS by SM2540C**
Seq Number: 3065737 Matrix: Ground Water
Parent Sample Id: 601428-044 MD Sample Id: 601428-044 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	8980	9280	3	10	mg/L	10.08.18 17:30	

Analytical Method: **TDS by SM2540C**
Seq Number: 3065889 Matrix: Ground Water
Parent Sample Id: 601428-045 MD Sample Id: 601428-045 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	18700	19700	5	10	mg/L	10.09.18 10:30	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 990 of 1515

Chain of Custody

Work Order No: 601428

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 5

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2018-001	Routine	☒
P.O. Number:	34023156	Rush:	
Sampler's Name:	Joe Mireles, Joshua Sharkey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.2	Thermometer ID:	IR8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-8-W-181003	GW	10-3	0925	—	1	X	X
NM-MW-4-W-181003	GW	10-3	0935	—	1	X	X
RRR-Ranch-W-181003	GW	10-3	0955	—	1	X	X
NM-MW-7-W-181003	GW	10-3	1005	—	1	X	X
NM-MW-3-W-181003	GW	10-3	1015	—	1	X	X
NM-MW-2-W-181003	GW	10-3	1030	—	1	X	X
NM-MW-1-W-181003	GW	10-3	1035	—	1	X	X
NM-MW-5-W-181003	GW	10-3	1045	—	1	X	X
NM-MW-6-W-181003	GW	10-3	1100	—	1	X	X
NM-MW-11-W-181003	GW	10-3	1110	—	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles		10-4-18 1530	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 70 of 75

Page 991 of 1515

Chain of Custody

Work Order No: 601428

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2018-001	Routine	☒
P.O. Number:	34023156	Rush:	
Sampler's Name:	Joe Mireles Joshua Sharkey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.7	Thermometer ID	108
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.0
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-13-W-181003	GW	10-3	1140	—	1	X	X
NM-MW-10-W-181003	GW	10-3	1205	—	1	X	X
NM-MW-12-W-181003	GW	10-3	1225	—	1	X	X
Wilson-W-181003	GW	10-3	1235	—	1	X	X
NM-MW-9-W-181003	GW	10-3	1250	—	1	X	X
Smith-W-181003	GW	10-3	1300	—	1	X	X
MW-29-W-181003	GW	10-3	1315	—	1	X	X
MW-28-W-181003	GW	10-3	1325	—	1	X	X
MW-9-W-181003	GW	10-3	1400	—	1	X	X
Wilson-WD-181003	GW	10-3	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles		10-4-18 1530	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 71 of 75

Page 992 of 1515

Chain of Custody

Work Order No: 601428

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2018-001	Routine	☑
P.O. Number:	34023156	Rush:	
Sampler's Name:	Joshua Shanley Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0-2	Thermometer ID	18
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0-0
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-8-W-181003	GW	10-3	1415	—	1	X	X
DHA-FWS-W-181003	GW	10-3	1425	—	1	X	X
MW-27-W-181003	GW	10-3	1430	—	1	X	X
MW-20-W-181003	GW	10-3	1440	—	1	X	X
MW-10-W-181003	GW	10-3	1455	—	1	X	X
MW-19-W-181004	GW	10-4	0935	—	1	X	X
MW-18-W-181004	GW	10-4	0945	—	1	X	X
MW-12-W-181004	GW	10-4	0955	—	1	X	X
MW-24-W-181004	GW	10-4	1005	—	1	X	X
MW-26-W-181004	GW	10-4	1015	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Shanley		10-4-18 1530	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 72 of 75

Page 993 of 1515

Chain of Custody

Work Order No: 601428

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 4 of 5

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2018-001	Routine	☑
P.O. Number:	34023156	Rush:	
Sampler's Name:	Joshua Shanny Joe Mireles	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	0.0	Thermometer ID:	IR6
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-31-W-181004	GW	10-4	1025	—	1	X	X
MW-25-W-181004	GW	10-4	1035	—	1	X	X
MW-11-W-181004	GW	10-4	1045	—	1	X	X
MW-6-W-181004	GW	10-4	1055	—	1	X	X
MW-5-W-181004	GW	10-4	1105	—	1	X	X
MW-3-W-181004	GW	10-4	1115	—	1	X	X
TRACT-4-W-181004	GW	10-4	1125	—	1	X	X
MW-14-W-181004	GW	10-4	1140	—	1	X	X
MW-4-W-181004	GW	10-4	1150	—	1	X	X
TRACT-4-WD-181004	GW	10-4	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Shanny		10-4-18 1530	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 73 of 75

Page 994 of 1515

Chain of Custody

Work Order No: 601429

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	
Company Name:	GHD	Company Name:	
Address:	2135 S. Loop 250 West	Address:	
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270-2018-001	Routine	☑
P.O. Number:	34023156	Rush:	
Sampler's Name:	Joshua Sherman Jacobsen	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	0.2	Thermometer ID:	IR6
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0.0
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-13-W-181004	GW	10-4	1215	—	1	X	X
MW-30-W-181004	GW	10-4	1225	—	1	X	X
Livermore-W-181004	GW	10-4	1235	—	1	X	X
MW-33-W-181004	GW	10-4	1245	—	1	X	X
MW-22-W-181004	GW	10-4	1250	—	1	X	X
MW-17-W-181004	GW	10-4	1300	—	1	X	X
MW-21-W-181004	GW	10-4	1305	—	1	X	X
MW-16-W-181004	GW	10-4	1320	—	1	X	X
MW-15-W-181004	GW	10-4	1330	—	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joshua Sherman		10-4-18 1530	2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 74 of 75

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 10/04/2018 03:30:00 PM

Work Order #: 601428

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: BT

PH Device/Lot#: A032690

Checklist completed by: Katie Lowe Date: 10/04/2018

Checklist reviewed by: Debbie Simmons Date: 10/08/2018

Appendix C
Historical Groundwater Analytical Data

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Recovery Wells			
10-V-WW			
	01/06	NS	NS
	03/06	**1,310**	**2,415**
	6/14/2006	**1,040**	**2,690**
	9/11/2006	**1,210**	**2,600**
	7/26/2007	**1,750**	**3,130**
	1/21/2008	**1,580**	**2,880**
	7/7/2008	**1,490**	**3,090**
	1/26/2009	**1,790**	**3,250**
	8/21/2009	**1,620**	**2,680**
	2/17/2010	NA	**2,840**
	2/18/2010	**1,370**	NA
	8/16/2010	**1,670**	**2,890**
	2/10/2011	**1,760**	**3,170**
	8/4/2011	**1,890**	**3,430**
	1/31/2012	**1,870**	**3,500**
	7/31/2013	**1,530**	**2,840**
	7/16/2014	**1,900**	**4,870**
	7/17/2015	**699**	**1,760**
	1/29/2016	**1,750**	**3,330**
	7/19/2016	**1,850**	**3,860**
	1/13/2017	**2,200**	**4,130**
	4/10/2017	NS	NS
	7/14/2017	**1,840**	**3,730**
10-W-WW			
	01/06	NS	NS
	03/06	**1,154**	**2,166**
	6/14/2006	**1,160**	**2,520**
	9/11/2006	**1,210**	**2,500**
	12/6/2006	**1,380**	**2,540**
	2/27/2007	**1,250**	**2,450**
	7/23/2007	**1,420**	**3,090**
	1/21/2008	**1,240**	**2,080**
	7/7/2008	**1,380**	**2,820**
	1/26/2009	**1,480**	**2,680**
	8/21/2009	**1,360**	**2,440**
	2/17/2010	NA	**2,460**
	2/18/2010	**1,220**	NA
	8/16/2010	**1,780**	**2,690**
	2/10/2011	**1,180**	**2,300**
	8/4/2011	**1,480**	**2,680**
	1/31/2012	**1,460**	**2,290**
	1/30/2013	**1,370**	**2,580**
	1/13/2014	**1,450**	**3,000**
	1/13/2015	**1,230**	**3,330**
	1/29/2016	NS	NS
	7/19/2016	**1,100**	**2,990**
	1/13/2017	**1,620**	**3,000**
	4/10/2017	NS	NS
	7/14/2017	**1,150**	**2,650**
10-X-WW			
	01/06	NS	NS
	03/06	**1,343**	**2,603**
	6/14/2006	**1,340**	**2,910**
	9/11/2006	**1,240**	**2,830**
	12/6/2006	**1,440**	**2,870**
	2/27/2007	**1,300**	**2,970**
	7/23/2007	**1,500**	**2,710**
	1/21/2008	**1,220**	**2,300**
	7/7/2008	**1,300**	**2,640**
	7/7/2008	**1,290**	**2,540**
	8/21/2009	**1,160**	**2,410**
	2/17/2010	NA	**2,600**
	8/16/2010	**1,520**	**2,790**
	2/10/2011	**1,360**	**2,300**
	8/4/2011	**1,090**	**2,140**
	1/31/2012	**905**	**1,960**
	8/2/2012	**736**	**NS**
	1/29/2016	NS	NS
	7/19/2016	**399**	**1,070**
	1/13/2017	**580**	**1,130**
	4/10/2017	NS	NS
	7/14/2017	**499**	**1,230**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
11-U-WW			
	01/06	NS	NS
	04/06	**1,038**	**2,023**
	6/14/2006	**1,030**	**2,190**
	9/11/2006	**1,250**	**2,330**
	12/6/2006	**1,200**	**2,330**
	2/27/2007	**1,100**	**2,330**
	7/23/2007	**1,250**	**2,130**
	2/27/2007	**1,100**	**2,330**
	7/23/2007	**1,250**	**2,130**
	1/21/2008	**1,290**	**2,330**
	7/7/2008	**1,220**	**2,270**
	1/26/2009	**1,520**	**2,350**
	8/21/2009	**1,230**	**2,180**
	2/17/2010	NA	**2,130**
	2/18/2010	**1,110**	NA
	8/16/2010	**1,350**	**2,370**
	2/10/2011	**1,300**	**2,310**
	8/4/2011	**1,570**	**2,640**
	1/31/2012	**1,260**	**2,690**
	8/2/2012	**1,240**	NA
	1/30/2013	**1,290**	**2,190**
	1/13/2014	**1,230**	**2,880**
	1/13/2015	**1,650**	**4,350**
12-S-WW			
	01/06	**1,205**	**2,281**
	04/06	**1,008**	**1,994**
	6/14/2006	**995**	**2,160**
	9/11/2006	**1,020**	**2,160**
	12/6/2006	**1,270**	**2,370**
	2/27/2007	**1,060**	**2,070**
	7/23/2007	**956**	**2,050**
	2/27/2007	**1,060**	**2,070**
	7/23/2007	**956**	**2,050**
	1/21/2008	**1,120**	**2,060**
	7/7/2008	**1,000**	**1,920**
	1/26/2009	**1,370**	**2,090**
	8/21/2009	NS	NS
	2/17/2010	NA	**2,120**
	2/18/2010	**986**	NA
	8/16/2010	**1,250**	**2,360**
	2/15/2011	**382**	896
	8/4/2011	**1,290**	**2,180**
	1/31/2012	**1,240**	**2,380**
	8/2/2012	**1,010**	NS
	1/30/2013	**1,190**	**2,100**
	1/13/2014	**1,060**	**2,290**
	1/13/2015	**1,130**	**2,680**
	1/29/2016	**1,140**	**2,110**
12-T-WW			
	01/06	**1,123**	**2,125**
	04/06	**1,111**	**2,098**
	6/14/2006	**1,140**	**2,370**
	9/11/2006	**1,120**	**2,770**
	12/6/2006	**1,210**	**2,490**
	2/27/2007	**1,180**	**2,740**
	7/23/2007	**1,320**	**2,890**
	1/21/2008	**1,290**	**2,140**
	7/7/2008	**1,300**	**2,410**
	1/26/2009	**1,430**	**2,570**
	8/21/2009	**1,340**	**2,340**
	2/17/2010	NA	**2,470**
	2/18/2010	**1,230**	NA
	8/16/2010	**1,480**	**2,660**
	2/24/2011	**1,310**	**2,660**
	8/4/2011	**1,520**	**3,090**
	1/31/2012	**1,020**	**2,620**
	8/2/2012	**1,260**	**3,020**
	7/31/2013	**1,290**	**2,700**
	1/13/2014	**1,170**	**2,620**
	7/16/2014	**1,540**	**4,630**
	1/13/2015	**1,490**	**3,760**
	7/17/2015	**1,620**	**3,900**
	1/29/2016	NS	NS
	7/19/2016	**1,690**	**3,390**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
29-Q-WW			
	01/06	**2,171**	**3,851**
	04/06	**2,225**	**3,950**
	6/14/2006	**2,260**	**5,050**
	9/11/2006	**1,180**	**2,410**
	12/6/2006	**2,560**	**5,620**
	2/27/2007	**2,430**	**4,240**
	7/23/2007	**2,500**	**5,040**
	1/21/2008	**2,670**	**3,750**
	7/7/2008	**2,210**	**3,920**
	1/26/2009	**2,190**	**4,740**
	8/21/2009	**2,110**	**4,570**
	2/17/2010	NA	**3,730**
	2/18/2010	**1,790**	NA
	8/16/2010	**2,190**	**4,620**
	8/4/2011	**2,260**	**4,190**
	1/31/2012	**2,070**	**3,910**
	8/2/2012	**1,820**	NA
	7/31/2013	**2,050**	**4,300**
	1/13/2014	**1,880**	**3,570**
	1/13/2015	**1,950**	**4,400**
	1/29/2016	**1,910**	**3,190**
	7/19/2016	**1,870**	**3,490**
	1/13/2017	**1,150**	**2,200**
29-R-WW			
	01/06	**1,043**	**2,099**
	04/06	**990**	**1,975**
	6/14/2006	**1,000**	**2,410**
	9/11/2006	**1,430**	**2,550**
	12/6/2006	**1,480**	**2,430**
	2/27/2007	**923**	**1,800**
	7/23/2007	**1,100**	**2,390**
	1/21/2008	**1,100**	**2,010**
	7/7/2008	**1,070**	**2,120**
	1/26/2009	**1,040**	**2,010**
	8/21/2009	**1,530**	**2,320**
	2/17/2010	NA	**1,800**
	2/18/2010	**867**	NA
	8/16/2010	**1,200**	**2,190**
	2/10/2011	**920**	**1,960**
	8/4/2011	**956**	**1,930**
	1/31/2012	**1,210**	**2,360**
	8/2/2012	**895**	**2,240**
	10/25/2013	**708**	**1,770**
30-O-WW			
	01/06	**1,369**	**2,338**
	04/06	**1,368**	**2,373**
	6/14/2006	**1,430**	**3,290**
	9/11/2006	**2,690**	**4,710**
	2/27/2007	**1,420**	**2,650**
	7/23/2007	**1,390**	**3,190**
	1/21/2008	**1,280**	**2,090**
	7/7/2008	**1,190**	**2,280**
	1/26/2009	**1,330**	**2,700**
	8/21/2009	**1,390**	**2,820**
	2/17/2010	NA	**2,100**
	2/18/2010	**1,010**	NA
	8/16/2010	**1,540**	**2,750**
	2/10/2011	**1,240**	**2,210**
	8/4/2011	**1,420**	**2,500**
	1/31/2012	**1,210**	**2,760**
	8/2/2012	**1,160**	NA
	1/30/2013	**1,240**	**2,200**
	7/31/2013	**1,020**	**2,430**
	1/13/2014	**1,080**	**2,450**
	7/16/2014	**1,160**	**4,160**
	1/13/2015	**1,130**	**2,870**
	7/17/2015	**1,140**	**2,700**
	1/29/2016	**1,100**	**2,210**
	7/19/2016	**1,230**	**3,050**
	1/13/2017	**1,330**	**2,530**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
31-N-WW			
	01/06	**1,172**	**2,213**
	04/06	**1,143**	**2,184**
	5/1/2006	**1,157**	**2,195**
	6/14/2006	**1,120**	**2,670**
	9/11/2006	**1,310**	**2,530**
	12/6/2006	**1,290**	**2,920**
	2/27/2007	**1,170**	**1,870**
	7/23/2007	**1,290**	**2,750**
	1/21/2008	**1,250**	**2,110**
	7/7/2008	**1,200**	**2,520**
	1/26/2009	**1,260**	**2,450**
	8/21/2009	**1,110**	**2,800**
	2/17/2010	NA	**2,300**
	2/18/2010	**973**	NA
	8/16/2010	**1,350**	**2,460**
	2/24/2011	**1,120**	**2,320**
	8/8/2011	**1,390**	**2,710**
	1/31/2012	**1,370**	**2,200**
	8/2/2012	**1,150**	NA
	1/30/2013	**1,290**	**2,290**
	7/31/2013	**1,320**	**2,730**
	1/13/2014	**1,370**	**2,690**
	7/16/2014	**1,840**	**4,480**
	1/13/2015	**1,380**	**3,690**
	7/17/2015	**1,060**	**2,230**
	1/29/2016	**1,410**	**2,670**
	7/19/2016	**1,820**	**3,760**
	1/13/2017	**1,860**	**3,240**
43-K-WW			
	01/06	**5,414**	**9,613**
	04/06	**5,611**	**10,045**
	6/14/2006	**5,850**	**12,300**
	9/12/2006	**7,100**	**11,100**
	12/6/2006	**3,230**	**6,290**
	2/27/2007	**5,660**	**10,800**
	7/23/2007	**6,360**	**12,800**
	1/21/2008	**6,310**	**10,900**
	7/7/2008	**6,480**	**11,600**
	1/26/2009	**6,600**	**13,300**
	8/24/2009	**6,910**	**12,200**
	2/17/2010	NA	**12,900**
	2/18/2010	**6,250**	NA
	8/16/2010	**8,560**	**14,600**
	2/10/2011	**8,780**	**15,400**
	8/5/2011	**9,310**	**16,900**
	1/31/2012	**8,730**	**15,000**
	8/2/2012	**7,880**	NA
43-L-WW			
	01/06	**8,803**	**15,562**
	04/06	**12,931**	**22,519**
	6/14/2006	**8,920**	**18,600**
	9/12/2006	**9,120**	**17,800**
	12/6/2006	**9,380**	**19,300**
	2/27/2007	**9,970**	**17,000**
	3/1/2007	NS	NS
	1/21/2008	**10,300**	**17,700**
	7/7/2008	**12,400**	**23,000**
	1/26/2009	**13,000**	**40,800**
	8/24/2009	**9,650**	**16,800**
	2/17/2010	NA	**17,700**
	2/18/2010	**8,560**	NA
	8/16/2010	**10,300**	**19,100**
	8/5/2011	**7,590**	**14,400**
	1/31/2012	**8,340**	**13,900**
	8/2/2012	**7,220**	NA
	1/30/2013	**7,820**	**13,100**
	10/25/2013	**6,170**	**12,000**
	1/14/2014	**6,470**	**9,880**
	7/17/2014	**6,180**	**12,200**
	1/14/2015	**5,500**	**5,140**
	1/29/2016	**5,200**	**8,100**
	7/19/2016	**4,240**	**9,290**
	1/13/2017	**5,990**	**8,800**
	4/10/2017	NS	NS
	7/14/2017	**4,770**	**8,990**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
43-M-WW			
	01/06	**3,464**	**6,920**
	04/06	**3,557**	**7,107**
	6/14/2006	**4,070**	**7,440**
	9/12/2006	**3,360**	**7,680**
	12/6/2006	**3,950**	**7,650**
	2/27/2007	**3,880**	**6,890**
	3/1/2007	NS	NS
	7/23/2007	**4,920**	**8,380**
	1/21/2008	**4,690**	**8,410**
	7/7/2008	**4,680**	**8,660**
	1/26/2009	**4,730**	**9,580**
	8/24/2009	**4,980**	**9,500**
	2/17/2010	NA	**9,980**
	2/18/2010	**5,180**	NA
	8/16/2010	**5,940**	**11,300**
	2/10/2011	**6,250**	**10,900**
	8/4/2011	**6,530**	**11,900**
	1/31/2012	**5,700**	**11,400**
	8/2/2012	**5,600**	**11,500**
	1/30/2013	**5,840**	**10,300**
	10/25/2013	**5,890**	**11,200**
	1/14/2014	**5,550**	**9,610**
	7/17/2014	**4,680**	**9,480**
	1/14/2015	**4,350**	**8,270**
	1/29/2016	**4,210**	**7,020**
	7/19/2016	NS	NS
	1/13/2017	**4,500**	**7,300**
	4/10/2017	NS	NS
	7/14/2017	**3,770**	**6,700**
44-H-WW			
	01/06	**3,066**	**5,714**
	04/06	**3,207**	**5,803**
	6/13/2006	**3,460**	**6,870**
	9/12/2006	**3,380**	**7,280**
	12/6/2006	**4,170**	**7,220**
	2/27/2007	**3,980**	**7,810**
	7/23/2007	**4,280**	**9,340**
	1/21/2008	**4,550**	**7,560**
	7/7/2008	**4,680**	**9,360**
	1/26/2009	**4,200**	**8,220**
	8/24/2009	**4,130**	**7,160**
	2/17/2010	NA	**7,440**
	2/18/2010	**3,710**	NA
	2/22/2010	NA	**7,560**
	8/16/2010	**4,560**	**7,640**
	1/29/2016	NS	NS
	7/20/2016	**2,870**	**6,030**
44-I-WW			
	01/06	**3,101**	**5,699**
	04/06	**2,948**	**5,425**
	6/13/2006	**3,060**	**6,150**
	12/6/2006	**3,930**	**7,110**
	2/27/2007	**2,040**	**4,290**
	7/23/2007	**3,310**	**5,550**
	1/21/2008	NS	NS
	7/7/2008	**3,070**	**6,310**
	1/26/2009	**2,800**	**5,340**
	8/24/2009	**2,600**	**5,610**
	2/17/2010	NA	**5,250**
	2/18/2010	**2,240**	NA
	8/2/2012	**1,660**	NA
44-II-WW			
	01/06	**3,586**	**6,549**
	04/06	**3,735**	**6,793**
	6/13/2006	**3,860**	**7,360**
	9/12/2006	**3,800**	**6,640**
	12/6/2006	**4,170**	**7,220**
	2/27/2007	**3,780**	**7,320**
	7/23/2007	**4,130**	**6,860**
	1/21/2008	**3,900**	**6,490**
	1/26/2009	**4,010**	**7,760**
	8/24/2009	**4,010**	**9,080**
	2/17/2010	NA	**7,940**
	2/18/2010	**3,870**	NA
	8/16/2010	**4,750**	**9,020**

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-WW			
	01/06	**2,746**	**5,244**
	04/06	**2,683**	**5,192**
	6/13/2006	**2,680**	**5,630**
	9/12/2006	**2,590**	**5,850**
	12/6/2006	**2,920**	**5,640**
	2/27/2007	**2,630**	**5,370**
	7/23/2007	**3,000**	**5,540**
	1/21/2008	**2,990**	**5,410**
	7/7/2008	**3,200**	**6,380**
	1/26/2009	**3,260**	**6,500**
	8/24/2009	**3,150**	**6,010**
	1/29/2016	NS	NS
	7/20/2016	**1,880**	**4,220**
45-EE-WW			
	01/06	**1,865**	**3,210**
	03/06	**1,855**	**3,195**
	6/13/2006	**1,970**	**3,580**
	9/12/2006	**1,910**	**3,970**
	12/7/2006	**2,140**	**4,320**
	2/24/2007	**1,700**	**4,010**
	7/23/2007	**2,210**	**3,590**
	1/21/2008	**2,110**	**3,360**
	7/7/2008	**2,090**	**3,710**
	1/26/2009	**2,170**	**5,190**
	8/24/2009	**2,060**	**4,910**
	2/17/2010	NA	**3,970**
	2/18/2010	**1,810**	NA
	8/16/2010	**2,570**	**4,170**
	2/10/2011	**2,480**	**5,600**
	8/5/2011	**2,630**	**5,220**
	1/31/2012	**2,410**	**4,370**
	1/31/2012	**2,460**	**4,120**
	8/2/2012	**2,050**	NA
	1/30/2013	**2,390**	**4,070**
	1/14/2014	**2,230**	**4,380**
	1/14/2015	**2,170**	**5,340**
	1/29/2016	**2,120**	**3,860**
	7/19/2016	**2,560**	**4,310**
	1/13/2017	**2,600**	**4,690**
	4/10/2017	NS	NS
	7/14/2017	**2,300**	**4,330**
45-ER-WW			
	01/06	**1,829**	**3,138**
	03/06	**1,870**	**3,201**
	6/13/2006	**2,000**	**3,910**
	9/12/2006	**2,270**	**3,720**
	12/6/2006	**2,190**	**3,820**
	7/26/2007	**2,250**	**5,690**
	1/21/2008	NS	NS
	7/7/2008	**2,430**	**4,550**
	1/26/2009	**2,610**	**4,700**
	8/24/2009	**2,550**	**4,490**
	2/17/2010	NA	**4,480**
	2/18/2010	**2,020**	NA
	8/16/2010	**2,870**	**6,030**
	2/10/2011	**2,450**	**5,930**
	8/5/2011	**3,160**	**7,210**
	1/31/2012	**2,840**	**6,190**
	8/2/2012	**2,650**	**6,690**
	1/30/2013	**2,950**	**5,070**
	7/17/2014	**3,450**	**9,240**
	1/14/2015	**2,660**	**9,520**
	1/29/2016	**3,190**	**6,350**
	7/19/2016	**3,590**	**8,980**
	1/13/2017	**4,390**	**5,960**
	4/10/2017	NS	NS
	7/14/2017	**3,370**	**6,120**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-F-WW			
	01/06	**3,597**	**6,087**
	03/06	**3,577**	**6,177**
	6/13/2006	**3,900**	**9,020**
	9/12/2006	**3,820**	**8,090**
	12/6/2006	**4,260**	**7,520**
	2/27/2007	**4,010**	**8,380**
	7/23/2007	**4,460**	**10,200**
	1/21/2008	**4,480**	**7,000**
	7/7/2008	**4,370**	**8,640**
	1/26/2009	**4,380**	**8,340**
	8/24/2009	**4,070**	**8,060**
	2/17/2010	NA	**8,140**
	2/18/2010	**4,260**	NA
	2/22/2010	NA	**7,980**
	8/16/2010	**4,200**	**8,420**
	8/5/2011	**5,040**	**10,900**
	1/31/2012	**4,750**	**9,520**
	8/2/2012	**4,030**	NA
	7/31/2013	**4,060**	**9,620**
	7/17/2015	**3,910**	**8,490**
	1/29/2016	**4,280**	**13,600**
	7/19/2016	**4,370/3,720**	**7,610/8,680**
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**3,990**	**7,660**
45-G-WW			
	01/06	**2,386**	**4,328**
	03/06	**2,246**	**4,100**
	6/13/2006	**2,100**	**4,010**
	9/12/2006	**2,490**	**4,870**
	12/6/2006	**2,490**	**5,130**
	2/27/2007	**2,430**	**5,440**
	7/23/2007	**2,090**	**3,590**
	1/21/2008	**3,330**	**5,480**
	7/7/2008	**2,680**	**5,270**
	1/26/2009	**2,730**	**4,030**
	8/24/2009	**2,950**	**7,260**
	2/17/2010	NA	**6,840**
	2/18/2010	**3,340**	NA
	8/16/2010	**3,990**	**7,760**
	2/10/2011	**3,270**	**6,570**
	8/5/2011	**3,630**	**7,290**
	1/31/2012	**3,600**	**7,940**
	8/2/2012	**3,510**	**8,310**
	1/30/2013	**3,310**	**5,510**
	10/25/2013	**3,390**	**7,280**
	1/14/2014	**3,900**	**7,870**
	1/14/2015	**3,320**	**8,010**
	7/17/2015	**3,460**	**7,970**
	1/29/2016	**3,450**	**7,610**
58-A-WW			
	01/06	**2,117**	**3,590**
	03/06	**2,102**	**3,556**
	6/14/2006	**1,990**	NA
	7/24/2007	**2,500**	**5,170**
	1/21/2008	**2,410**	**5,710**
	7/7/2008	**2,080**	**4,800**
	8/21/2009	**2,120**	**3,720**
	2/17/2010	NA	**3,810**
	2/18/2010	**1,700**	NA
	8/16/2010	**2,060**	**5,390**
	2/10/2011	**1,950**	**3,500**
	8/2/2011	**2,060**	**4,210**
	2/2/2012	**1,560**	**4,440**
	7/31/2013	**1,740**	**4,260**
	7/17/2014	**1,610**	**10,600**
	7/17/2015	**1,850**	**3,990**
	1/29/2016	**1,600**	**2,840**
	7/19/2016	**1,650**	**3,490**
	1/13/2017	**1,960**	**3,130**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
58-B-WW			
	01/06	**1,287**	**2,406**
	03/06	**1,295**	**2,379**
	6/14/2006	**2,500**	**3,260**
	9/12/2006	**1,500**	**2,500**
	12/6/2006	**1,640**	**3,260**
	12/6/2006	**1,730**	**3,300**
	2/27/2007	**1,590**	**3,600**
	7/24/2007	**1,770**	**3,720**
	1/21/2008	**1,670**	**2,570**
	7/7/2008	**1,520**	**3,480**
	1/26/2009	**1,620**	**3,560**
58-BB-WW			
	01/06	**4,256**	**6,732**
	03/06	**4,368**	**6,993**
	6/14/2006	**4,820**	**10,800**
	9/12/2006	**5,080**	**7,760**
	12/6/2006	**5,510**	**10,800**
	7/24/2007	**5,120**	**9,980**
	1/21/2008	**5,460**	**7,940**
	7/7/2008	**4,970**	**9,880**
	1/26/2009	**5,390**	**11,200**
	8/21/2009	**5,290**	**8,700**
	8/16/2010	**6,300**	**13,500**
	2/10/2011	**5,430**	**9,900**
	8/2/2011	**5,910**	**14,400**
	1/31/2012	**5,080**	**10,000**
	8/2/2012	**4,600**	**14,200**
	7/31/2013	**4,130**	**10,400**
	7/17/2014	**4,440**	**12,500**
	7/17/2015	**4,060**	**7,140**
58-C-WW			
	01/06	**2,179**	**3,623**
	03/06	**2,173**	**3,562**
	6/14/2006	NS	NS
	12/6/2006	**2,600**	**5,300**
	2/27/2007	**2,290**	**6,220**
	7/24/2007	**2,890**	**4,640**
	1/21/2008	**2,870**	**4,040**
	7/7/2008	**2,760**	**5,530**
	2/17/2010	NA	**6,930**
	2/18/2010	**3,600**	NA
	8/16/2010	**4,570**	**8,380**
	2/10/2011	**3,960**	**7,740**
	8/2/2011	**5,270**	**12,800**
	3/19/2012	**1,170**	**3,200**
	8/2/2012	**4,600**	NA
	1/30/2013	**6,010**	**10,300**
	1/14/2014	**4,640**	**8,310**
	1/14/2015	**4,660**	**12,000**
	1/29/2016	NS	NS
	7/19/2016	**4,300**	**11,100**
58-D-WW			
	01/06	**2,133**	**3,595**
	03/06	**2,169**	**3,634**
	6/14/2006	**2,220**	**5,230**
	9/12/2006	**2,380**	**3,620**
	12/6/2006	**2,520**	**5,240**
	2/27/2007	**2,230**	**5,060**
	7/24/2007	**2,970**	**4,760**
	1/21/2008	**2,730**	**4,010**
	7/7/2008	**2,560**	**4,960**
	1/26/2009	**2,860**	**6,070**
	8/21/2009	NS	NS
	2/17/2010	NA	**5,280**
	2/18/2010	**2,140**	NA
	8/16/2010	**2,930**	**7,760**
	8/2/2011	**3,790**	**7,230**
	3/19/2012	**3,730**	**7,460**
	7/31/2013	**3,170**	**8,550**
	7/17/2014	**3,580**	**10,500**
	7/17/2015	**5,180**	**10,800**
	1/29/2016	NS	NS
	7/19/2016	**3,280**	**9,600**
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**4,020**	**7,050**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Monitor Wells			
43-K-1-MW			
	2/28/2007	**6,200**	**11,400**
	7/26/2007	**7,250**	**13,500**
	1/22/2008	**7,360**	**12,500**
	7/7/2008	**7,460**	**14,300**
	1/28/2009	**8,210**	**14,500**
	8/26/2009	**9,140**	**16,700**
	2/19/2010	**7,560**	**15,000**
	8/18/2010	**10,600**	**17,900**
	2/15/2011	**11,900**	**15,400**
	8/4/2011	**11,600**	**19,800**
	2/3/2012	**9,560**	**19,900**
	7/17/2015	**8,870**	**16,700**
	1/29/2016	NS	NS
	7/20/2016	**8,470**	**13,800**
	1/11/2017	**8,360**	**15,400**
	4/10/2017	NS	NS
	7/14/2017	**8,550**	**14,000**
	1/12/2018	**8,020**	**10,500**
	7/5/2018	**7,840**	**12,700**
44-I-1-MW			
	01/06	**1,909**	**3,728**
	04/06	**1,349**	**2,823**
	6/13/2006	**1,300**	**2,930**
	9/13/2006	**1,340**	**2,620**
	12/8/2006	**1,370**	**3,010**
	2/28/2007	**1,310**	**2,840**
	7/30/2007	**1,440**	**3,010**
	1/22/2008	**1,630**	**2,730**
	7/7/2008	**1,480**	**2,910**
	1/29/2009	**1,510**	**2,870**
	8/27/2009	**1,500**	**2,850**
	2/18/2010	**1,140**	**2,800**
	8/19/2010	**1,610**	**2,840**
	2/15/2011	**1,970**	**2,850**
	8/4/2011	**1,770**	**3,060**
	2/2/2012	**1,550**	**3,470**
	1/29/2013	**1,850**	**3,300**
	7/30/2013	**1,640**	**3,550**
	1/15/2014	**1,860**	**3,730**
	7/16/2014	**2,100**	**5,180**
	1/14/2015	**2,000**	**4,690**
	1/28/2016	**2,430**	**3,500**
	7/20/2016	**2,620**	**6,220**
	1/12/2017	**3,290**	**6,250**
	4/10/2017	NS	NS
	7/14/2017	**2,750**	**6,700**
	1/12/2018	**2,940**	**5,030**
	7/5/2018	**3,170**	**5,450**
44-J-1-MW			
	01/06	**1,382**	**2,835**
	03/06	**1,551**	**3,139**
	6/13/2006	**1,550**	**3,570**
	9/13/2006	**1,910**	**3,270**
	12/8/2006	**1,810**	**3,090**
	2/28/2007	**1,600**	**3,530**
	7/30/2007	**1,830**	**3,480**
	1/22/2008	**2,090**	**3,390**
	7/7/2008	**1,960**	**3,780**
	1/29/2009	**1,870**	**4,070**
	8/28/2009	**2,480**	**4,050**
	2/19/2010	**1,850**	**4,480**
	8/19/2010	**2,600**	**4,440**
	2/15/2011	**2,630**	**4,960**
	8/4/2011	**2,890**	**5,740**
	2/2/2012	**2,740**	**5,900**
	1/28/2016	NS	NS
	7/20/2016	**2,440**	**5,980**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**3,650**	**8,630**
	1/12/2018	**3,410**	**6,190**
	7/5/2018	**4,300**	**6,910**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-2-MW			
	01/06	**1,380**	**2,870**
	03/06	**1,911**	**3,745**
	6/13/2006	**1,760**	**3,910**
	9/13/2006	**2,230**	**3,790**
	12/8/2006	**2,270**	**3,660**
	2/28/2007	**1,820**	**3,770**
	7/30/2007	**2,090**	**4,050**
	1/22/2008	**2,040**	**3,800**
	7/7/2008	**2,130**	**4,290**
	1/29/2009	**2,260**	**4,800**
	8/28/2009	**2,820**	**5,030**
	2/18/2010	**2,280**	**5,840**
	8/20/2010	**2,930**	**5,900**
	2/15/2011	**3,000**	**5,780**
	8/5/2011	**3,090**	**13,200**
	2/2/2012	**3,200**	**7,600**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**8,680**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**4,160**	**10,000**
	1/12/2018	**4,560**	**7,820**
	7/5/2018	**5,050**	**8,000**
44-J-3-MW			
	9/13/2006	**2,580**	**4,850**
	12/8/2006	**2,690**	**4,790**
	8/28/2009	**3,330**	**5,820**
	2/18/2010	**2,580**	**4,980**
	8/20/2010	**3,430**	**5,940**
	2/15/2011	**3,660**	**6,340**
	8/2/2011	**3,090**	**5,970**
	2/2/2012	**2,810**	**5,640**
	1/28/2016	NS	NS
	7/20/2016	**3,630**	**7,810**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**3,960**	**9,150**
	1/12/2018	**4,800**	**8,420**
	7/5/2018	**5,290**	**9,230**
44-J-4-MW			
	9/13/2006	**1,820**	**3,620**
	12/8/2006	**2,220**	**3,880**
	8/27/2009	**2,090**	**3,810**
	2/18/2010	**1,730**	**4,160**
	8/20/2010	**2,300**	**4,500**
	2/15/2011	**2,400**	**4,500**
	8/2/2011	**2,510**	**4,300**
	2/3/2012	**2,160**	**5,150**
	1/28/2016	NS	NS
	7/20/2016	**3,080**	**6,110**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,750**	**6,260**
	1/12/2018	**3,660**	**7,250**
	7/5/2018	**4,520**	**7,430**
44-J-5-MW			
	9/13/2006	**1,740**	**3,360**
	12/8/2006	**1,570**	**3,260**
	8/27/2009	**1,650**	**3,870**
	2/19/2010	**1,660**	**3,940**
	8/20/2010	**2,150**	**4,260**
	2/15/2011	**2,530**	**4,030**
	8/4/2011	**2,430**	**4,320**
	2/2/2012	**2,260**	**4,920**
	1/28/2016	NS	NS
	7/20/2016	**2,710**	**5,470**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,930**	**6,780**
	1/12/2018	**3,500**	**6,230**
	7/5/2018	**4,060**	**6,600**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
45-E-1-MW			
	01/06	**994**	**1,795**
	03/06	**1,686**	**2,951**
	6/14/2006	**2,580**	**5,290**
	9/12/2006	**1,990**	**4,110**
	12/7/2006	**3,740**	**7,960**
	2/28/2007	**3,650**	**8,130**
	7/30/2007	**3,770**	**9,480**
	1/22/2008	**3,850**	**6,250**
	7/7/2008	**3,770**	**7,140**
	1/28/2009	**3,810**	**8,230**
	8/27/2009	**3,710**	**6,780**
	2/18/2010	**3,150**	**6,720**
	8/17/2010	**4,090**	**6,520**
	2/15/2011	**4,150**	**6,800**
	8/2/2011	**1,960**	**8,390**
	2/2/2012	**3,520**	**9,160**
	1/28/2016	NS	NS
	7/20/2016	**2,690**	**6,540**
	1/12/2017	**2,860**	**3,340**
	4/10/2017	NS	NS
	7/20/2017	**2,580**	**5,020**
	1/12/2018	**2,300**	**4,650**
	7/5/2018	**2,530**	**4,220**
45-E-2-MW			
	01/06	98	601
	03/06	76	600
	6/14/2006	85	576
	9/12/2006	81	529
	12/7/2006	82	560
	2/28/2007	**1,170**	**2,210**
	7/30/2007	**1,260**	**2,290**
	1/22/2008	**1,240**	**2,100**
	7/7/2008	**1,310**	**2,300**
	1/28/2009	**1,280**	**2,540**
	8/26/2009	**322**	880
	2/18/2010	**460**	**1,160**
	8/18/2010	144	612
	2/15/2011	124	629
	8/2/2011	**1,450**	**3,290**
	2/2/2012	**738**	**1,620**
	1/28/2016	NS	NS
	7/20/2016	170	676
	1/12/2017	**2,370**	**4,320**
	4/10/2017	NS	NS
	7/20/2017	**1,720**	**3,780**
	1/12/2018	**718**	**3,050**
	7/5/2018	**1,790**	**3,130**
45-E-3-MW			
	2/28/2007	**3,360**	**6,800**
	7/26/2007	**3,780**	**9,560**
	1/22/2008	**3,660**	**6,030**
	7/7/2008	**3,590**	**7,750**
	1/28/2009	**3,820**	**8,410**
	8/26/2009	**3,520**	**6,870**
	2/18/2010	**3,270**	**7,990**
	8/18/2010	**4,060**	**6,590**
	2/15/2011	**4,320**	**6,820**
	8/2/2011	**1,960**	**8,490**
	2/3/2012	**3,920**	**8,480**
	1/28/2016	NS	NS
	7/20/2016	**2,870**	**6,790**
	1/11/2017	**2,920**	**6,030**
	4/10/2017	NS	NS
	7/20/2017	**2,870**	**5,620**
	1/12/2018	**2,990**	**4,940**
	7/5/2018	**3,360**	**5,750**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-F-1-MW			
	01/06	**619**	**1,270**
	03/06	**714**	**1,394**
	6/13/2006	**1,500**	**3,620**
	9/12/2006	**983**	**1,650**
	12/8/2006	**1,300**	**2,840**
	2/28/2007	**1,430**	**3,160**
	7/30/2007	**1,550**	**2,610**
	1/22/2008	**1,530**	**2,400**
	7/7/2008	**1,380**	**2,610**
	1/29/2009	**1,420**	**2,450**
	8/27/2009	**1,380**	**2,140**
	2/18/2010	**655**	**1,980**
	8/18/2010	**1,160**	**1,960**
	2/15/2011	**1,020**	**1,690**
	8/2/2011	**1,270**	**2,650**
	2/3/2012	**1,090**	**2,500**
	1/28/2016	NS	NS
	7/20/2016	**632**	**1,760**
	1/12/2017	**1,010**	**1,900**
	4/10/2017	NS	NS
	7/20/2017	**751**	**1,700**
	1/12/2018	**896**	**1,990**
	7/5/2018	**923**	**1,840**
45-FF-MW			
	01/06	**613**	**1,277**
	03/06	**3,090**	**5,086**
	6/13/2006	**3,870**	**11,500**
	9/12/2006	**4,610**	**7,280**
	12/7/2006	**4,910**	**10,600**
	2/28/2007	**5,060**	**8,960**
	2/28/2007	**4,890**	**11,100**
	7/30/2007	**5,020**	**8,780**
	1/22/2008	**5,160**	**9,100**
	7/7/2008	**5,220**	**9,870**
	1/28/2009	**4,900**	**8,540**
	8/27/2009	**5,760**	**9,120**
	2/18/2010	**3,210**	**7,340**
	8/18/2010	**5,830**	**9,360**
	2/15/2011	**6,000**	**10,200**
	8/4/2011	**5,510**	**12,100**
	2/2/2012	**4,360**	**9,680**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**9,940**
	1/12/2017	**4,800**	**11,200**
	4/10/2017	NS	NS
	7/20/2017	**4,170**	**8,030**
	1/12/2018	**4,820**	**8,280**
	7/5/2018	**5,310**	**9,090**
58-B-1-MW			
	01/06	**836**	**1,624**
	03/06	**1,874**	**3,138**
	6/14/2006	**976**	**2,310**
	9/12/2006	**3,440**	**5,290**
	12/7/2006	**3,230**	**7,600**
	2/28/2007	**3,350**	**7,370**
	7/26/2007	**4,680**	**8,890**
	1/22/2008	**3,220**	**5,110**
	7/7/2008	**2,980**	**6,110**
	1/28/2009	**3,150**	**6,330**
	8/26/2009	**3,320**	**5,820**
	2/18/2010	**2,850**	**6,710**
	8/19/2010	**4,120**	**9,970**
	2/15/2011	**4,180**	**6,850**
	8/2/2011	**5,240**	**11,700**
	2/6/2012	**5,510**	**10,000**
	1/28/2016	NS	NS
	7/22/2016	**3,550**	**8,460**
	1/13/2017	**7,510**	**9,410**
	4/10/2017	NS	NS
	7/20/2017	**5,480**	**9,230**
	1/12/2018	**5,250**	**8,620**
	7/5/2018	**6,440**	**10,000**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
58-B-2-MW			
	01/06	**1,103**	**2,024**
	03/06	**650**	**1,329**
	6/14/2006	**4,510**	**8,700**
	9/12/2006	**8,220**	**19,000**
	12/7/2006	**4,700**	**10,700**
	2/28/2007	**5,900**	**10,800**
	7/26/2007	**6,270**	**12,200**
	1/22/2008	**6,200**	**11,300**
	7/7/2008	**5,830**	**11,600**
	1/28/2009	**5,260**	**10,600**
	8/26/2009	**6,260**	**10,800**
	2/18/2010	**4,870**	**9,680**
	8/19/2010	**6,640**	**10,200**
	2/15/2011	**4,100**	**7,390**
	8/2/2011	**1,410**	**13,600**
	2/6/2012	**5,480**	**13,600**
	1/28/2016	**3,550**	**7,440**
	7/22/2016	**2,740**	**6,130**
	1/13/2017	**4,190**	**8,700**
	4/10/2017	NS	NS
	7/20/2017	**3,340**	**5,910**
	1/12/2018	**3,470**	**5,860**
	7/5/2018	**3,900**	**6,410**
58-B-3-MW			
	2/28/2007	**607**	**2,150**
	7/26/2007	**1,200**	**2,340**
	1/22/2008	**1,250**	**2,010**
	7/7/2008	**1,140**	**2,480**
	1/28/2009	**1,300**	**2,400**
	8/26/2009	**1,370**	**2,320**
	2/19/2010	**1,070**	**2,570**
	8/19/2010	**1,450**	**2,340**
	2/15/2011	**1,680**	**2,500**
	8/2/2011	**1,450**	**2,920**
	2/3/2012	**1,330**	**2,660**
	1/29/2013	**1,360**	**2,370**
	7/30/2013	**1,230**	**2,540**
	1/15/2014	**1,250**	**2,920**
	7/16/2014	**1,450**	**4,360**
	1/14/2015	**312**	**938**
	7/15/2015	**715**	**1,770**
	1/28/2016	**688**	**1,660**
	7/22/2016	**570**	**1,290**
	1/10/2017	**683**	**1,830**
	4/10/2017	NS	NS
	7/20/2017	**666**	**1,440**
	1/12/2018	**791**	**1,290**
	7/6/2018	**976**	**1,580**
MW-2			
	8/10/2015	204	**1,950**
	1/28/2016	NS	NS
	7/21/2016	NS	NS
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/6/2018	NS	NS
	10/4/2018	NS	NS
MW-3			
	8/10/2015	249	**1,100**
	1/27/2016	**484**	**1,070**
	7/21/2016	**486**	**1,430**
	1/11/2017	**564**	**1,410**
	4/10/2017	**605**	**1,960**
	7/19/2017	**572**	**1,400**
	10/5/2017	**569**	**1,520**
	1/12/2018	**566**	**1,410**
	4/5/2018	**589**	**1,300**
	7/3/2018	593	1,310
	10/4/2018	626	1,310

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
MW-4			
	8/10/2015	240	**1,850**
	1/27/2016	250	941
	7/21/2016	**355**	**2,260**
	1/11/2017	**353**	**1,260**
	4/10/2017	NS	NS
	7/20/2017	**325**	1,000
	10/5/2017	**347**	**1,010**
	1/12/2018	**345**	968
	4/6/2018	**350**	**413**
	7/3/2018	**338**	**831**
	10/4/2018	**350**	**883**
MW-5			
	8/10/2015	**837**	**2,960**
	1/28/2016	**459**	**2,130**
	7/21/2016	**397**	**1,690**
	1/11/2017	**364**	**1,400**
	4/10/2017	**346**	**1,560**
	7/19/2017	**309**	**1,170**
	10/5/2017	**302**	**1,040**
	1/12/2018	293	**1,130**
	4/5/2018	**289**	**1,140**
	7/3/2018	**274**	**1,020**
	10/4/2018	**278**	**1,050**
MW-6			
	8/10/2015	**578**	**2,180**
	1/28/2016	**484**	**2,090**
	7/21/2016	**450**	**1,590**
	1/11/2017	**441**	**1,330**
	4/10/2017	**468**	**1,760**
	7/18/2017	**439**	**1,650**
	10/5/2017	**407**	**1,530**
	1/12/2018	**408**	**1,490**
	4/5/2018	**411**	**1,430**
	7/3/2018	**402**	**1,340**
	10/4/2018	**404**	**1,450**
MW-7			
	8/10/2015	**772**	**3,230**
	1/28/2016	260	**2,620**
	7/21/2016	**524/508**	**2,510/2,410**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/3/2018	NS	NS
	10/4/2018	NS	NS
MW-8			
	8/10/2015	**711**	**2,430**
	1/28/2016	**763**	**2,310**
	7/21/2016	**758**	**2,140**
	1/13/2017	**985**	**2,410**
	4/7/2017	**933**	**2,120**
	7/17/2017	**845**	**2,280**
	10/4/2017	**803**	**2,210**
	1/12/2018	**813**	**2,250**
	4/5/2018	**839**	**2,300**
	7/5/2018	**868**	**2,350**
	10/3/2018	**888**	**2,490**
MW-9			
	8/10/2015	**1,650**	**3,390**
	1/28/2016	**2,160**	**4,410**
	7/21/2016	**2,140**	**6,790**
	1/13/2017	**3,520**	**4,540**
	4/7/2017	**3,070**	**6,760**
	7/17/2017	**2,830**	**4,930**
	10/4/2017	**2,230**	**4,730**
	1/12/2018	**2,540**	**4,380**
	4/5/2018	**2,930**	**4,690**
	7/5/2018	**2,880**	**4,250**
	10/3/2018	**2,910**	**4,270**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-10			
	8/10/2015	**3,480**	**7,980**
	1/28/2016	**5,320**	**9,850**
	7/20/2016	**5,920**	**12,400**
	1/12/2017	**6,360**	**10,500**
	4/7/2017	**5,930**	**12,700**
	7/18/2017	**5,320**	**9,720**
	10/5/2017	**5,190**	**8,560**
	1/12/2018	**5,350**	**9,650**
	4/5/2018	**5,470**	**8,630**
	7/3/2018	**5,340**	**11,000**
	10/3/2018	**5,880**	**8,570**
MW-11			
	8/10/2015	**458**	**3,260**
	1/28/2016	**5,280**	**5,720**
	7/21/2016	**6,830**	**16,100**
	1/11/2017	**7,310**	**18,800**
	4/10/2017	**7,760**	**17,100**
	7/18/2017	**7,620**	**12,700**
	10/5/2017	**7,110**	**12,600**
	1/12/2018	**8,120**	**12,700**
	4/5/2018	**7,990**	**11,000**
	7/3/2018	**7,940**	**11,800**
	10/4/2018	**8,310**	**12,000**
MW-12			
	8/10/2015	**7,680**	**20,500**
	1/28/2016	**12,800**	**24,400**
	7/20/2016	**12,000**	**27,500**
	1/11/2017	**16,400**	**24,100**
	4/7/2017	**13,900**	**28,900**
	7/18/2017	**13,600**	**23,000**
	10/5/2017	**14,000**	**23,000**
	1/12/2018	**13,100**	**21,400**
	4/5/2018	**13,300**	**19,400**
	7/3/2018	**13,200**	**20,200**
	10/4/2018	**15,000**	**24,400**
MW-13			
	8/10/2015	**1,740**	**4,100**
	1/28/2016	**1,850**	**4,110**
	7/21/2016	**1,650**	**5,300**
	1/11/2017	**1,270**	**1,660**
	4/10/2017	**1,890**	**4,760**
	7/19/2017	**1,730**	**4,010**
	10/5/2017	**1,910**	**5,260**
	1/12/2018	**1,750**	**3,920**
	4/6/2018	**1,750**	**3,920**
	7/3/2018	**2,280**	**4,560**
	10/4/2018	**2,200**	**3,900**
MW-14			
	8/11/2015	**989**	**3,040**
	1/27/2016	**1,420**	**2,560**
	7/21/2016	**1,480**	**3,800**
	1/11/2017	**1,470**	**2,890**
	4/10/2017	**1,530**	**4,400**
	7/19/2017	**1,500**	**3,330**
	10/5/2017	**1,510**	**3,460**
	1/12/2018	**1,590**	**2,910**
	4/6/2018	**1,720**	**1,270**
	7/3/2018	**1,540**	**2,660**
	10/4/2018	**1,690**	**2,620**
MW-15			
	8/11/2015	**600**	**1,730**
	1/28/2016	**617**	**1,180**
	7/21/2016	**554**	**1,370**
	1/11/2017	**710**	**1,640**
	4/10/2017	**785**	**2,030**
	7/19/2017	**652**	**1,220**
	10/5/2017	**831**	**1,690**
	1/12/2018	**873**	**1,770**
	4/6/2018	**877**	**1,900**
	7/3/2018	**914**	**1,650**
	10/4/2018	**1,030**	**1,740**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-16			
	8/11/2015	**435**	**1,410**
	1/28/2016	**323**	**1,020**
	7/21/2016	195	776
	1/11/2017	**472**	**1,180**
	4/10/2017	**396**	**1,400**
	7/19/2017	**444**	**1,100**
	10/5/2017	**426**	**1,210**
	1/12/2018	**364**	**1,100**
	4/6/2018	**432**	**1,310**
	7/3/2018	**430**	**1,160**
	10/4/2018	**474**	**1,210**
MW-17			
	8/12/2015	**5,800**	**13,400**
	1/28/2016	**4,400**	823
	7/21/2016	**3,370**	**7,900**
	1/11/2017	**9,760**	**16,200**
	4/10/2017	**9,620**	**20,400**
	7/19/2017	**8,160**	**14,400**
	10/6/2017	**11,400**	**18,800**
	1/12/2018	**10,100**	**15,300**
	4/6/2018	**9,590**	**14,800**
	7/3/2018	**8,570**	**15,000**
	10/4/2018	**11,300**	**17,700**
MW-18			
	8/12/2015	**13,400**	**26,600**
	1/28/2016	**13,900**	**25,300**
	7/20/2016	**8,000**	**18,900**
	1/12/2017	**14,200**	**33,700**
	4/7/2017	**19,100**	**37,800**
	7/18/2017	**13,900**	**23,500**
	10/6/2017	**19,000**	**52,900**
	1/12/2018	**18,800**	**30,300**
	4/5/2018	**20,000**	**30,400**
	7/3/2018	**22,000**	**38,500**
	10/4/2018	**21,100**	**31,600**
MW-19			
	8/12/2015	**4,780**	**11,300**
	1/28/2016	**5,130**	**10,100**
	7/20/2016	**5,160**	**10,200**
	1/12/2017	**6,370**	**9,560**
	4/7/2017	**6,000**	**13,600**
	7/18/2017	**5,310**	**9,840**
	10/6/2017	**5,290**	**9,620**
	1/12/2018	**6,160**	**10,300**
	4/5/2018	**6,600**	**9,880**
	7/5/2018	**6,580**	**11,500**
	10/4/2018	**6,980**	**11,600**
MW-20			
	8/12/2015	**995**	**2,760**
	1/28/2016	**1,200**	**2,390**
	7/20/2016	**1,060**	**2,920**
	1/12/2017	**1,500**	**1,970**
	4/7/2017	**1,200**	**3,300**
	7/18/2017	**1,110**	**2,540**
	10/6/2017	**1,100**	**2,220**
	1/12/2018	**1,130**	**2,410**
	4/5/2018	**1,100**	**2,130**
	7/5/2018	**1,150**	**2,160**
	10/3/2018	**1,340**	**2,490**
MW-21			
	7/21/2016	**7,920**	**19,400**
	1/11/2017	**7,360**	**11,800**
	4/10/2017	**6,600**	**17,900**
	7/19/2017	**5,480**	**12,200**
	10/6/2017	**7,210**	**13,500**
	1/12/2018	**6,800**	**10,900**
	4/6/2018	**7,630**	**11,000**
	7/3/2018	**6,860**	**11,100**
	10/4/2018	**7,400**	**11,400**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-22			
	3/3/2017	**12,100**	**19,000**
	4/10/2017	**14,000**	**33,000**
	7/19/2017	**8,720**	**17,400**
	10/6/2017	**11,400**	**20,200**
	1/12/2018	**10,400**	**16,200**
	4/6/2018	**10,500**	**17,200**
	7/3/2018	**10,300**	**16,300**
	10/4/2018	**14,200**	**18,700**
MW-23			
	7/21/2016	**1,430**	**3,050**
	1/11/2017	**2,120**	**4,130**
	4/10/2017	**3,010**	**8,750**
	7/19/2017	**1,680**	**3,550**
	10/6/2017	**4,520**	**7,370**
	1/12/2018	**5,230**	**9,340**
	4/6/2018	**6,830**	**10,100**
	7/3/2018	**4,390**	**6,870**
	10/4/2018	**6,090**	**8,980**
MW-24			
	7/20/2016	**3,720**	**8,910**
	1/12/2017	**4,740**	**8,690**
	4/7/2017	**4,520**	**11,200**
	7/18/2017	**3,880**	**8,600**
	10/6/2017	**3,930**	**8,500**
	1/12/2018	**4,060**	**8,170**
	4/5/2018	**3,980**	**7,080**
	7/3/2018	**4,140**	**8,210**
	10/4/2018	**4,850**	**8,870**
MW-25			
	7/21/2016	**560**	**1,510**
	1/11/2017	**24,400**	**29,700**
	4/10/2017	**23,100**	**49,600**
	7/18/2017	**18,800**	**32,800**
	10/6/2017	**18,300**	**33,200**
	1/12/2018	**20,900**	**31,400**
	4/5/2018	**22,400**	**32,800**
	7/3/2018	**23,600**	**37,600**
	10/4/2018	**26,500**	**39,000**
MW-26			
	1/12/2017	**1,220**	**2,840**
	4/7/2017	**1,190**	**3,160**
	7/18/2017	**1,140**	**3,060**
	10/6/2017	**1,120**	**2,570**
	1/12/2018	**1,160**	**2,860**
	4/5/2018	**1,230**	**2,730**
	7/5/2018	**1,210**	**2,810**
	10/4/2018	**1,340**	**2,750**
MW-27			
	7/20/2016	**1,340**	**3,080**
	1/11/2017	**2,400**	**4,160**
	4/7/2017	**2,380**	**4,520**
	7/18/2017	**2,110**	**4,150**
	10/6/2017	**2,280**	**4,610**
	1/12/2018	**2,260**	**4,220**
	4/5/2018	**2,400**	**4,250**
	7/3/2018	**2,510**	**4,790**
	10/3/2018	**3,030**	**4,700**
MW-28			
	1/10/2017	**917**	**2,520**
	4/7/2017	**1,090**	**2,650**
	7/17/2017	**1,190**	**2,730**
	10/6/2017	**1,240**	**3,270**
	1/12/2018	**1,470**	**1,280**
	4/5/2018	**1,540**	**2,660**
	7/6/2018	**1,610**	**2,540**
	10/3/2018	**1,760**	**3,020**
MW-29			
	1/10/2017	**354**	946
	4/7/2017	**386**	**1,160**
	7/17/2017	**393**	**1,060**
	10/6/2017	**374**	**1,100**
	1/12/2018	**397**	601
	4/5/2018	**396**	**1,100**
	7/6/2018	**397**	**860**
	10/3/2018	**409**	**1,070**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-30			
	7/19/2017	**2,360**	**4,540**
	10/6/2017	**2,420**	**5,270**
	1/12/2018	**2,350**	**4,160**
	4/6/2018	**2,240**	**1,310**
	7/3/2018	**2,280**	**3,650**
	10/4/2018	**2,550**	**3,820**
MW-31			
	7/18/2017	**7,980**	**13,600**
	10/6/2017	**8,540**	**16,600**
	1/12/2018	**10,700**	**16,400**
	4/5/2018	**11,700**	**17,700**
	7/3/2018	**12,100**	**19,800**
	10/4/2018	**12,800**	**19,500**
NM-MW-1			
	12/3/2015	266	**1,540**
	1/28/2016	283	**1,470**
	7/22/2016	294	**1,420**
	1/12/2017	**383**	**1,570**
	4/7/2017	291	**1,510**
	7/13/2017	287	**1,520**
	10/6/2017	271	**1,500**
	1/12/2018	271	933
	4/5/2018	263	**1,400**
	7/6/2018	275	**1,350**
	10/3/2018	279	**1,460**
NM-MW-2			
	12/3/2015	**640**	**2,620**
	1/28/2016	**658**	**1,920**
	7/22/2016	**638**	858
	1/12/2017	**790**	**1,770**
	4/7/2017	**656**	**1,590**
	7/13/2017	**653**	**1,340**
	10/6/2017	**650**	**1,410**
	1/12/2018	**639**	990
	4/5/2018	**610**	**1,210**
	7/6/2018	**679**	**1,160**
	10/3/2018	**674**	**1,270**
NM-MW-3			
	12/3/2015	**648**	**3,900**
	1/28/2016	**327**	**1,870**
	7/22/2016	121	524
	1/12/2017	224	581
	4/7/2017	161	564
	7/13/2017	186	592
	10/6/2017	276	626
	1/12/2018	221	501
	4/5/2018	180	601
	7/6/2018	220	625
	10/3/2018	246	708
NM-MW-4			
	12/3/2015	**739**	**2,960**
	1/28/2016	22.8	821
	7/22/2016	40.9	444
	1/12/2017	48.7	379
	4/7/2017	35.0	410
	7/13/2017	36.1	422
	10/6/2017	42.0	468
	1/12/2018	39	217
	4/5/2018	34	410
	7/6/2018	40.6	414
	10/3/2018	39.7	411
NM-MW-5			
	12/3/2015	DRY	DRY
	1/28/2016	144	**1,250**
	7/22/2016	129	**1,270**
	1/12/2017	182	**1,320**
	4/7/2017	145	**1,260**
	7/13/2017	147	**1,340**
	10/6/2017	144	**1,090**
	1/12/2018	133	893
	4/5/2018	134	**1,300**
	7/6/2018	140	**1,240**
	10/3/2018	138	**1,290**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
NM-MW-6			
	12/2/2015	188	**1,240**
	1/28/2016	183	**1,060**
	7/22/2016	121	817
	1/12/2017	168	825
	4/7/2017	143	852
	7/13/2017	138	818
	10/6/2017	132	742
	1/12/2018	137	468
	4/5/2018	127	836
	7/6/2018	134	801
	10/3/2018	138	833
NM-MW-7			
	12/3/2015	**696**	**3,200**
	1/28/2016	**1,840**	**3,150**
	7/22/2016	**1,890**	**5,320**
	1/12/2017	**2,390**	**3,770**
	4/7/2017	**2,180**	**4,770**
	7/13/2017	**2,120**	**4,100**
	10/6/2017	**2,070**	**4,200**
	1/12/2018	**2,110**	**2,370**
	4/5/2018	**2,090**	**4,270**
	7/6/2018	**2,330**	**3,780**
	10/3/2018	**2,380**	**4,050**
NM-MW-8			
	3/3/2017	**4,870**	**9,740**
	4/7/2017	**4,870**	**12,800**
	7/13/2017	**5,010**	**9,040**
	10/4/2017	**5,000**	**10,900**
	1/12/2018	**5,260**	**5,240**
	4/5/2018	**5,110**	**9,160**
	7/6/2018	**5,960**	**9,620**
	10/3/2018	**6,260**	**11,000**
NM-MW-9			
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/17/2017	224	776
	10/4/2017	263	813
	1/12/2018	221	717
	4/5/2018	234	804
	7/6/2018	252	785
	10/3/2018	258	799
NM-MW-10			
	1/10/2017	**314**	**1,550**
	4/7/2017	**355**	**1,570**
	7/17/2017	**308**	**1,600**
	10/4/2017	**302**	**1,550**
	1/12/2018	**314**	**1,050**
	4/5/2018	**301**	**1,620**
	7/6/2018	**308**	**1,450**
	10/3/2018	**315**	**1,520**
NM-MW-11			
	1/10/2017	190	**2,100**
	4/7/2017	158	**1,980**
	7/17/2017	135	**2,020**
	10/4/2017	154	**1,940**
	1/12/2018	155	**1,710**
	4/5/2018	699	**1,920**
	7/6/2018	143	**1,820**
	10/3/2018	152	**1,920**
NM-MW-12			
	3/3/2017	**760**	**1,460**
	4/7/2017	**725**	**2,230**
	7/17/2017	**726**	**1,540**
	10/4/2017	**643**	**1,590**
	1/12/2018	**663**	**1,470**
	4/5/2018	**656**	**1,430**
	7/6/2018	**665**	**1,250**
	10/3/2018	**668**	**1,390**
NM-MW-13			
	3/3/2017	183	**1,020**
	4/7/2017	192	**1,110**
	7/17/2017	185	**1,100**
	10/4/2017	183	**1,100**
	1/12/2018	188	965
	4/5/2018	180	**1,090**
	7/6/2018	184	**1,050**
	10/3/2018	185	**1,110**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Non-Remedial Wells			
DHU-FWS			
	01/06	**564**	**3,082**
	03/06	**581**	**3,181**
	6/14/2006	**553**	**3,020**
	9/12/2006	**584**	**2,650**
	12/6/2006	**636**	**3,070**
	7/30/2007	**646**	**3,010**
	1/21/2008	**637**	**3,140**
	7/7/2008	**546**	**3,050**
	1/26/2009	**610**	**3,040**
	8/21/2009	**580**	**3,000**
	2/17/2010	NA	**3,000**
	2/18/2010	**401**	NA
	8/16/2010	**771**	**3,060**
	2/10/2011	**577**	**2,840**
	8/2/2011	**612**	**2,960**
	1/31/2012	**866**	**2,910**
	7/19/2016	**629**	**2,810**
	1/11/2017	**670**	**3,060**
	4/10/2017	NS	NS
	7/14/2017	**587**	**3,020**
	10/9/2017	**565**	**2,990**
	1/12/2018	**615**	**2,820**
	4/5/2018	**572**	**2,640**
	7/5/2018	**593**	**2,710**
	10/3/2018	**593**	**2,830**
DHU-Office			
	04/06	**376**	**2,434**
DHU- Office (CHRM)			
	04/06	**382**	**2,460**
Livermore			
	01/06	NS	NS
	03/06	**6,946**	**11,381**
	6/14/2006	**8,320**	**14,300**
	9/12/2006	**7,400**	**12,000**
	12/7/2006	**5,750**	**12,000**
	2/28/2007	**5,770**	**11,200**
	7/30/2007	**5,910**	**12,600**
	7/7/2008	**5,280**	**9,340**
	1/29/2009	**4,670**	**8,200**
	8/25/2009	**4,630**	**8,260**
	2/18/2010	**3,700**	**7,560**
	8/20/2010	**4,390**	**7,920**
	2/15/2011	**4,400**	**7,430**
	8/5/2011	**4,230**	**7,230**
	2/3/2012	**3,310**	**6,790**
	8/7/2012	**3,730**	NA
	1/30/2013	**3,810**	**6,080**
	7/31/2013	**3,630**	**6,240**
	1/15/2014	**3,450**	**5,580**
	7/16/2014	**3,190**	**6,830**
	1/14/2015	**3,200**	**6,490**
	7/17/2015	**5,380**	**11,500**
	1/29/2016	**3,110**	**4,530**
	7/21/2016	**3,040**	**5,710**
	1/11/2017	**2,940**	**4,970**
	4/10/2017	NS	NS
	7/19/2017	**2,870**	**4,800**
	10/9/2017	**2,700**	**4,200**
	1/12/2018	**2,700**	**4,830**
	4/6/2018	**2,530**	**1,430**
	7/3/2018	**2,560**	**4,580**
	10/4/2018	**2,710**	**4,020**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Pure Water Tower			
	01/06	**6,976**	**12,456**
	03/06	NS	NS
	6/14/2006	**7,890**	**16,200**
	9/12/2006	**8,200**	**13,100**
	12/6/2006	**8,070**	**14,600**
	2/27/2007	**6,400**	**12,800**
	7/30/2007	**7,450**	**15,400**
	1/21/2008	**11,800**	**20,100**
	1/26/2009	**5,010**	**12,100**
	8/21/2009	**6,920**	**12,900**
	2/17/2010	NA	**19,800**
	2/18/2010	**9,880**	NA
	8/16/2010	**11,800**	**23,000**
	6/28/2011	**9,260**	**20,500**
	8/5/2011	**6,470**	**12,900**
	1/31/2012	**5,380**	**11,500**
Pure Water Well			
	01/06	NS	NS
	03/06	NS	NS
	6/14/2006	**5,820**	**11,200**
	9/12/2006	**6,260**	**13,900**
	12/6/2006	**2,790**	**5,680**
	7/23/2007	**4,060**	**9,500**
	1/21/2008	**2,560**	**4,590**
	7/7/2008	**1,030**	**2,320**
	1/26/2009	**4,390**	**10,400**
	8/21/2009	**5,240**	**9,840**
	2/17/2010	NA	**9,160**
	2/18/2010	**1,810**	NA
	2/10/2011	**5,070**	**12,900**
	8/5/2011	**5,430**	**12,900**
	8/21/2012	**4,650**	**10,200**
	1/30/2013	**4,880**	**8,800**
	10/25/2013	**5,340**	**11,100**
	1/13/2014	**4,830**	**10,700**
	7/17/2015	**754**	**1,890**
RRR Ranch Windmill			
	01/06	NS	NS
	03/06	**1,693**	**3,527**
	6/14/2006	**1,760**	**3,640**
	1/28/2016	**1,430**	**2,760**
	7/22/2016	**1,460**	**3,940**
	1/12/2017	**1,760**	**3,030**
	4/10/2017	NS	NS
	7/17/2017	**1,570**	**3,300**
	10/9/2017	**2,620**	**3,870**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,620**	**3,110**
	7/6/2018	**1,670**	**3,030**
	10/3/2018	**1,660**	**3,000**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
TRAC-4			
	01/06	**432**	**1,237**
	03/06	**581**	**3,181**
	6/14/2006	**402**	**1,270**
	9/11/2006	**428**	**1,310**
	12/7/2006	**456**	**1,300**
	2/27/2007	**435**	**1,240**
	7/30/2007	**493**	**1,320**
	1/21/2008	**421**	**1,220**
	7/7/2008	**461**	**1,290**
	1/26/2009	**546**	**1,320**
	8/21/2009	**471**	**1,330**
	2/17/2010	NA	**1,320**
	2/18/2010	**469**	NA
	2/15/2011	**549**	**1,340**
	8/4/2011	**455**	**1,250**
	1/31/2012	**445**	**1,150**
	8/2/2012	**433**	NA
	7/31/2013	**427**	**1,170**
	7/18/2014	**470**	**1,480**
	7/17/2015	**425**	**1,210**
	1/28/2016	**400**	**1,280**
	7/19/2016	NS	NS
	1/11/2017	**377**	**1,160**
	4/10/2017	NS	NS
	7/19/2017	**350**	**1,100**
	10/9/2017	**348**	**1,110**
	1/12/2018	**335**	**1,120**
	4/6/2018	**401**	**1,040**
	7/3/2018	**343**	**1,040**
	10/4/2018	**347**	**1,070**
TRAC-8			
	01/06	**2,090**	**3,786**
	03/06	**2,090**	**3,801**
	6/14/2006	**1,740**	**3,830**
	9/11/2006	**1,990**	**4,630**
	12/6/2006	**2,130**	**4,600**
	2/27/2007	**2,220**	**4,630**
	7/30/2007	**2,220**	**5,110**
	1/21/2008	**2,100**	**3,580**
	7/7/2008	**2,010**	**4,170**
	1/26/2009	**2,250**	**4,280**
	8/21/2009	**2,260**	**4,140**
	3/8/2010	**2,240**	**4,430**
	8/16/2010	**2,360**	**4,350**
	2/10/2011	**2,880**	**4,750**
	8/4/2011	**2,450**	**5,170**
	1/31/2012	**2,120**	**4,600**
	8/2/2012	**1,600**	NA
	1/30/2013	**1,920**	**3,420**
	7/31/2013	**1,760**	**4,060**
	1/13/2014	**1,650**	**3,270**
	7/17/2014	**1,770**	**4,670**
	1/13/2015	**1,810**	**4,300**
	1/28/2016	NS	NS
	7/19/2016	**2,000**	**4,380**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix C

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample ID	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Wilson Ranch			
	01/06	**2,243**	**3,578**
	03/06	NS	NS
	6/14/2006	**2,410**	**4,980**
	9/12/2006	**2,510**	**4,450**
	12/7/2006	**2,350**	**4,750**
	2/27/2007	**2,110**	**4,020**
	7/30/2007	**2,440**	**5,240**
	1/21/2008	**2,690**	**3,880**
	7/7/2008	**2,030**	**3,810**
	8/25/2009	**2,320**	**5,350**
	2/12/2016	**888**	**2,230**
	7/19/2016	**1,500**	**3,250**
	1/10/2017	**1,300**	**3,130**
	4/10/2017	NS	NS
	7/16/2017	**1,140**	**2,380**
	10/9/2017	**1,200**	**2,800**
	1/12/2018	**673**	**1,600**
	4/6/2018	**1,360**	**2,950**
	7/6/2018	**1,330**	**2,190**
	10/3/2018	**1,380**	**2,680**
Smith Residential Well			
	1/13/2017	**1,600**	**2,580**
	4/10/2017	NS	NS
	7/17/2017	**1,050**	**2,230**
	10/9/2017	**1,260**	**2,660**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,280**	**2,670**
	7/6/2018	**1,340**	**2,140**
	10/3/2018	**1,310**	**2,260**

Notes:
1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result exceeded the TCEQ Secondary Drinking Water Standard.

NS = Not Sampled
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D
Data Validation Reports

Memorandum

February 13, 2018

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/18-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas January 2018**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during January 2018. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, blank spikes (BS), matrix spikes (MS), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Blank Spike (BS) Analyses

BS or BS/laboratory control sample duplicate (BSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the BS/BSD recoveries is used to evaluate analytical precision. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project.

For this study, BS or BS/BSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The BS or BS/BSD contained all analytes of interest. All BS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision, where applicable.

5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with chloride, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the following exceptions:

i) Two MS/MSDs were reported with elevated recoveries for chloride analysis due to matrix interferences and were not assessed. No further action was required.

The laboratory performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one times the PQL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's reporting limit (RL) for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-7-W-180112	NM-MW-7	Water	01/12/2018	11:05	X	X	
NM-MW-4-W-180112	NM-MW-4	Water	01/12/2018	11:15	X	X	MS/MSD
NM-MW-8-W-180112	NM-MW-8	Water	01/12/2018	11:25	X	X	
NM-MW-3-W-180112	NM-MW-3	Water	01/12/2018	11:40	X	X	
NM-MW-2-W-180112	NM-MW-2	Water	01/12/2018	11:50	X	X	
NM-MW-1-W-180112	NM-MW-1	Water	01/12/2018	12:00	X	X	
NM-MW-5-W-180112	NM-MW-5	Water	01/12/2018	12:10	X	X	
NM-MW-6-W-180112	NM-MW-6	Water	01/12/2018	12:15	X	X	
NM-MW-10-W-180112	NM-MW-10	Water	01/12/2018	12:25	X	X	
NM-MW-11-W-180112	NM-MW-11	Water	01/12/2018	12:35	X	X	
NM-MW-13-W-180112	NM-MW-13	Water	01/12/2018	13:00	X	X	
58-B-3-MW-W-180112	58-B-3	Water	01/12/2018	13:20	X	X	DUP
MW-29-W-180112	MW-29	Water	01/12/2018	13:30	X	X	
MW-28-W-180112	MW-28	Water	01/12/2018	13:40	X	X	
RRR Ranch Windmill-W-180115	Ranch Windmill	Water	01/15/2018	11:00	X	X	
RRR Ranch Windmill-WD-180115	Ranch Windmill	Water	01/15/2018	11:00	X	X	Field duplicate of Ranch Windmill
NM-MW-9-W-180115	NM-MW-9	Water	01/15/2018	11:20	X	X	
NM-MW-12-W-180115	NM-MW-12	Water	01/15/2018	11:45	X	X	
Wilson Ranch Well-W-180115	WILSON RANCH WW	Water	01/15/2018	12:00	X	X	MS/MSD; DUP
Smith Residence-W-180115	SMITH WW WEST	Water	01/15/2018	13:20	X	X	MS/MSD; DUP

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
58-B-2-MW-W-180115	58-B-2	Water	01/15/2018	13:40	X	X	
58-B-2-MW-WD-180115	58-B-2	Water	01/15/2018	13:40	X	X	Field duplicate of 58-B-2
58-B-1-MW-W-180115	58-B-1	Water	01/15/2018	13:55	X	X	
MW-9-W-180115	MW-9	Water	01/15/2018	14:15	X	X	
MW-8-W-180115	MW-8	Water	01/15/2018	14:30	X	X	
MW-27-W-180116	MW-27	Water	01/16/2018	09:40	X	X	
MW-20-W-180116	MW-20	Water	01/16/2018	10:00	X	X	
MW-26-W-180116	MW-26	Water	01/16/2018	10:10	X	X	
MW-10-W-180116	MW-10	Water	01/16/2018	10:15	X	X	
MW-24-W-180116	MW-24	Water	01/16/2018	10:25	X	X	
MW-12-W-180116	MW-12	Water	01/16/2018	10:35	X	X	
MW-18-W-180116	MW-18	Water	01/16/2018	10:40	X	X	
MW-19-W-180116	MW-19	Water	01/16/2018	10:50	X	X	
45-F-1-MW-W-180116	45-F-1	Water	01/16/2018	12:20	X	X	
45-FF-MW-W-180116	45-FF	Water	01/16/2018	12:25	X	X	
45-E-2-MW-W-180116	45-E-2	Water	01/16/2018	12:30	X	X	
45-E-1-MW-W-180116	45-E-1	Water	01/16/2018	12:35	X	X	
44-I-1-MW-W-180116	44-I-1	Water	01/16/2018	12:50	X	X	
44-J-1-MW-W-180116	44-J-1	Water	01/16/2018	12:55	X	X	
44-J-5-MW-W-180116	44-J-5	Water	01/16/2018	13:00	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
44-J-3-MW-W-180116	44-J-3	Water	01/16/2018	13:10	X	X	
44-J-2-MW-W-180116	44-J-2	Water	01/16/2018	13:15	X	X	
44-J-4-MW-W-180116	44-J-4	Water	01/16/2018	13:15	X	X	
DHU-FWS-W-180116	DHU-FWS	Water	01/16/2018	13:35	X	X	MS/MSD; DUP
45-E-3-MW-W-180116	45-E-3	Water	01/16/2018	13:45	X	X	
43-K-1-MW-W-180116	43-K-1	Water	01/16/2018	14:00	X	X	
MW-31-W-180117	MW-31	Water	01/17/2018	09:50	X	X	
MW-25-W-180117	MW-25	Water	01/17/2018	10:15	X	X	
MW-11-W-180117	MW-11	Water	01/17/2018	10:25	X	X	
MW-6-W-180117	MW-6	Water	01/17/2018	10:40	X	X	
MW-5-W-180117	MW-5	Water	01/17/2018	10:50	X	X	
MW-3-W-180117	MW-3	Water	01/17/2018	11:00	X	X	MS/MSD
Trac-4-W-180117	Trac4	Water	01/17/2018	11:10	X	X	
Trac-4-WD-180117	Trac4	Water	01/17/2018	11:10	X	X	Field duplicate of Trac4
MW-14-W-180117	MW-14	Water	01/17/2018	11:15	X	X	
MW-4-W-180117	MW-4	Water	01/17/2018	11:30	X	X	
MW-13-W-180117	MW-13	Water	01/17/2018	12:00	X	X	
MW-30-W-180117	MW-30	Water	01/17/2018	12:05	X	X	
Livermore-W-180117	Livermore	Water	01/17/2018	12:10	X	X	
MW-22-W-180117	MW-22	Water	01/17/2018	12:20	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-23-W-180117	MW-23	Water	01/17/2018	12:25	X	X	
MW-17-W-180117	MW-17	Water	01/17/2018	12:30	X	X	
MW-21-W-180117	MW-21	Water	01/17/2018	12:40	X	X	DUP
MW-16-W-180117	MW-16	Water	01/17/2018	12:50	X	X	MS/MSD
MW-15-W-180117	MW-15	Water	01/17/2018	13:00	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/ Matrix Spike Duplicate
DUP - Laboratory Duplicate

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		43-K-1	44-I-1	44-J-1	44-J-2	44-J-3	44-J-4
Sample Name:		43-K-1-MW-W-180116	44-I-1-MW-W-180116	44-J-1-MW-W-180116	44-J-2-MW-W-180116	44-J-3-MW-W-180116	44-J-4-MW-W-180116
Sample Date:		01/16/2018	01/16/2018	01/16/2018	01/16/2018	01/16/2018	01/16/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	8020	2940	3410	4560	4800	3660
TDS	mg/L	10500	5030	6190	7820	8420	7250

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		44-J-5	45-E-1	45-E-2	45-E-3	45-F-1	45-FF
Sample Name:		44-J-5-MW-W-180116	45-E-1-MW-W-180116	45-E-2-MW-W-180116	45-E-3-MW-W-180116	45-F-1-MW-W-180116	45-FF-MW-W-180116
Sample Date:		01/16/2018	01/16/2018	01/16/2018	01/16/2018	01/16/2018	01/16/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	3500	2300	718	2990	896	4820
TDS	mg/L	6230	4650	3050	4940	1990	8280

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		58-B-1	58-B-2	58-B-2	58-B-3	DHU-FWS	Livermore
Sample Name:		58-B-1-MW-W-180115	58-B-2-MW-W-180115	58-B-2-MW-WD-180115	58-B-3-MW-W-180112	DHU-FWS-W-180116	Livermore-W-180117
Sample Date:		01/15/2018	01/15/2018	01/15/2018	01/12/2018	01/16/2018	01/17/2018
				Duplicate			
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	5250	3470	3600	791	615	2700
TDS	mg/L	8620	5860	5940	1290	2820	4830

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		MW-3	MW-4	MW-5	MW-6	MW-8	MW-9
Sample Name:		MW-3-W-180117	MW-4-W-180117	MW-5-W-180117	MW-6-W-180117	MW-8-W-180115	MW-9-W-180115
Sample Date:		01/17/2018	01/17/2018	01/17/2018	01/17/2018	01/15/2018	01/15/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	566	345	293	408	813	2540
TDS	mg/L	1410	968	1130	1490	2250	4380

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Sample Name:		MW-10-W-180116	MW-11-W-180117	MW-12-W-180116	MW-13-W-180117	MW-14-W-180117	MW-15-W-180117
Sample Date:		01/16/2018	01/17/2018	01/16/2018	01/17/2018	01/17/2018	01/17/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	5350	8120	13100	1750	1590	873
TDS	mg/L	9650	12700	21400	3920	2910	1770

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		MW-16	MW-17	MW-18	MW-19	MW-20	MW-21
Sample Name:		MW-16-W-180117	MW-17-W-180117	MW-18-W-180116	MW-19-W-180116	MW-20-W-180116	MW-21-W-180117
Sample Date:		01/17/2018	01/17/2018	01/16/2018	01/16/2018	01/16/2018	01/17/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	364	10100	18800	6160	1130	6800
TDS	mg/L	1100	15300	30300	10300	2410	10900

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		MW-22	MW-23	MW-24	MW-25	MW-26	MW-27
Sample Name:		MW-22-W-180117	MW-23-W-180117	MW-24-W-180116	MW-25-W-180117	MW-26-W-180116	MW-27-W-180116
Sample Date:		01/17/2018	01/17/2018	01/16/2018	01/17/2018	01/16/2018	01/16/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	10400	5230	4060	20900	1160	2260
TDS	mg/L	16200	9340	8170	31400	2860	4220

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		MW-28	MW-29	MW-30	MW-31	NM-MW-1	NM-MW-2
Sample Name:		MW-28-W-180112	MW-29-W-180112	MW-30-W-180117	MW-31-W-180117	NM-MW-1-W-180112	NM-MW-2-W-180112
Sample Date:		01/12/2018	01/12/2018	01/17/2018	01/17/2018	01/12/2018	01/12/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	1470	397	2350	10700	271	639
TDS	mg/L	1280	601	4160	16400	933	990

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		NM-MW-3	NM-MW-4	NM-MW-5	NM-MW-6	NM-MW-7	NM-MW-8
Sample Name:		NM-MW-3-W-180112	NM-MW-4-W-180112	NM-MW-5-W-180112	NM-MW-6-W-180112	NM-MW-7-W-180112	NM-MW-8-W-180112
Sample Date:		01/12/2018	01/12/2018	01/12/2018	01/12/2018	01/12/2018	01/12/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	221	39.3	133	137	2110	5260
TDS	mg/L	501	217	893	468	2370	5240

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		NM-MW-9	NM-MW-10	NM-MW-11	NM-MW-12	NM-MW-13	Ranch Windmill
Sample Name:		NM-MW-9-W-180115	NM-MW-10-W-180112	NM-MW-11-W-180112	NM-MW-12-W-180115	NM-MW-13-W-180112	RRR Ranch Windmill-W-180115
Sample Date:		01/15/2018	01/12/2018	01/12/2018	01/15/2018	01/12/2018	01/15/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	221	314	155	663	188	1600
TDS	mg/L	717	1050	1710	1470	965	3130

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Location ID:		Ranch Windmill	SMITH WW WEST	Trac4	Trac4	WILSON RANCH WW
Sample Name:		RRR Ranch Windmill-WD-180115	Smith Residence-W-180115	Trac-4-W-180117	Trac-4-WD-180117	Wilson Ranch Well-W-180115
Sample Date:		01/15/2018	01/15/2018	01/17/2018	01/17/2018	01/15/2018
		Duplicate			Duplicate	
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	1570	650	335	336	673
TDS	mg/L	3240	1500	1120	1150	1600

Notes:

TDS - Total Dissolved Solids

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January 2018

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

May 1, 2018

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/19-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas April 2018**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during April 2018. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, blank spikes (BS), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Blank Spike Analyses

BS or BS/laboratory control sample duplicate (BSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the BS/BSD recoveries is used to evaluate analytical precision. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project.

For this study, BS or BS/BSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The BS or BS/BSD contained all analytes of interest. All BS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision, where applicable.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with chloride, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the following exceptions:

i) One MS/MSD was reported with low recoveries for chloride analysis due to matrix interferences and were not assessed. No further action was required.

The laboratory performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted two field duplicate sample sets.

To assess the analytical and sampling protocol precision, two field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one times the PQL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the following exception (see Table 4):

i) NM-MW-11-W-18040 and NM-MW-11-WD-18040 did show some variability in chloride results and were qualified as estimated.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's reporting limit (RL) for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-18-W-180405	MW-18	Water	04/05/2018	10:20	X	X	
MW-19-W-180405	MW-19	Water	04/05/2018	10:30	X	X	
MW-12-W-180405	MW-12	Water	04/05/2018	10:40	X	X	
NM-MW-13-W-180405	NM-MW-13	Water	04/05/2018	10:45	X	X	
MW-31-W-180405	MW-31	Water	04/05/2018	10:50	X	X	
MW-24-W-180405	MW-24	Water	04/05/2018	11:00	X	X	
NM-MW-11-W-180405	NM-MW-11	Water	04/05/2018	11:10	X	X	
NM-MW-11-WD-180405	NM-MW-11	Water	04/05/2018	11:10	X	X	Field duplicate of NM-MW-11
MW-26-W-180405	MW-26	Water	04/05/2018	11:10	X	X	
MW-20-W-180405	MW-20	Water	04/05/2018	11:20	X	X	
NM-MW-10-W-180405	NM-MW-10	Water	04/05/2018	11:30	X	X	
MW-27-W-180405	MW-27	Water	04/05/2018	11:35	X	X	
DHU-FWS-180405	DHU-FWS	Water	04/05/2018	11:40	X	X	
MW-8-W-180405	MW-8	Water	04/05/2018	11:50	X	X	
NM-MW-12-W-180405	NM-MW-12	Water	04/05/2018	11:55	X	X	
MW-9-W-180405	MW-9	Water	04/05/2018	12:00	X	X	
NM-MW-9-W-180405	NM-MW-9	Water	04/05/2018	12:05	X	X	
MW-29-W-180405	MW-29	Water	04/05/2018	12:25	X	X	
Smith Ranch HouseWWW180405	SMITH WW WEST	Water	04/05/2018	12:30	X	X	MS/MSD; DUP

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-28-W-180405	MW-28	Water	04/05/2018	12:35	X	X	
NM-MW-5-W-180405	NM-MW-5	Water	04/05/2018	12:40	X	X	
NM-MW-1-W-180405	NM-MW-1	Water	04/05/2018	12:50	X	X	
MW-10-W-180405	MW-10	Water	04/05/2018	12:50	X	X	
MW-10-WD-180405	MW-10	Water	04/05/2018	12:50	X	X	Field duplicate of MW-10
NM-MW-6-W-180405	NM-MW-6	Water	04/05/2018	13:00	X	X	
MW-11-W-180405	MW-11	Water	04/05/2018	13:00	X	X	DUP
MW-6-W-180405	MW-6	Water	04/05/2018	13:10	X	X	
NM-MW-2-W-180405	NM-MW-2	Water	04/05/2018	13:15	X	X	
MW-5-W-180405	MW-5	Water	04/05/2018	13:20	X	X	
NM-MW-3-W-180405	NM-MW-3	Water	04/05/2018	13:25	X	X	
MW-3-W-180405	MW-3	Water	04/05/2018	13:40	X	X	
RRR Ranch Windmill-WW-180405	Ranch Windmill	Water	04/05/2018	13:45	X	X	
NM-MW-7-W-180405	NM-MW-7	Water	04/05/2018	14:00	X	X	
MW-25-W-180405	MW-25	Water	04/05/2018	14:00	X	X	DUP
NM-MW-4-W-180405	NM-MW-4	Water	04/05/2018	14:10	X	X	
NM-MW-8-W-180405	NM-MW-8	Water	04/05/2018	14:15	X	X	
Livermore-W-180406	Livermore	Water	04/06/2018	10:30	X	X	
MW-30-W-180406	MW-30	Water	04/06/2018	10:50	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-13-W-180406	MW-13	Water	04/06/2018	11:00	X	X	
MW-4-W-180406	MW-4	Water	04/06/2018	11:10	X	X	
MW-14-W-180406	MW-14	Water	04/06/2018	11:20	X	X	DUP
Trac-4-W-180406	Trac4	Water	04/06/2018	11:30	X	X	MS/MSD; DUP
MW-15-W-180406	MW-15	Water	04/06/2018	11:40	X	X	
MW-16-W-180406	MW-16	Water	04/06/2018	11:50	X	X	
MW-21-W-180406	MW-21	Water	04/06/2018	12:10	X	X	
MW-17-W-180406	MW-17	Water	04/06/2018	12:20	X	X	
MW-22-W-180406	MW-22	Water	04/06/2018	12:30	X	X	
MW-23-W-180406	MW-23	Water	04/06/2018	12:40	X	X	
Wilson Ranch-W-180406	WILSON RANCH WW	Water	04/06/2018	13:00	X	X	

Notes:

TDS	- Total Dissolved Solids
MS/MSD	- Matrix Spike/ Matrix Spike Duplicate
DUP	- Laboratory Duplicate

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		DHU-FWS	Livermore	MW-3	MW-4	MW-5	MW-6	MW-8
Sample Name:		DHU-FWS-180405	Livermore-W-180406	MW-3-W-180405	MW-4-W-180406	MW-5-W-180405	MW-6-W-180405	MW-8-W-180405
Sample Date:		04/05/2018	04/06/2018	04/05/2018	04/06/2018	04/05/2018	04/05/2018	04/05/2018
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	572	2530	589	350	289	411	839
TDS	mg/L	2640	1430	1300	413	1140	1430	2300

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		MW-9	MW-10	MW-10	MW-11	MW-12	MW-13	MW-14
Sample Name:		MW-9-W-180405	MW-10-W-180405	MW-10-WD-180405	MW-11-W-180405	MW-12-W-180405	MW-13-W-180406	MW-14-W-180406
Sample Date:		04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/06/2018	04/06/2018
				Duplicate				
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	2930	5470	5420	7990	13300	1780	1720
TDS	mg/L	4690	8630	8540	11000	19400	664	1270

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		MW-15	MW-16	MW-17	MW-18	MW-19	MW-20
Sample Name:		MW-15-W-180406	MW-16-W-180406	MW-17-W-180406	MW-18-W-180405	MW-19-W-180405	MW-20-W-180405
Sample Date:		04/06/2018	04/06/2018	04/06/2018	04/05/2018	04/05/2018	04/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	877	432	9590	20000	6600	1100
TDS	mg/L	1900	1310	14800	30400	9880	2130

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		MW-21	MW-22	MW-23	MW-24	MW-25	MW-26
Sample Name:		MW-21-W-180406	MW-22-W-180406	MW-23-W-180406	MW-24-W-180405	MW-25-W-180405	MW-26-W-180405
Sample Date:		04/06/2018	04/06/2018	04/06/2018	04/05/2018	04/05/2018	04/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	7630	10500	6830	3980	22400	1230
TDS	mg/L	11000	17200	10100	7080	32800	2730

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		MW-27	MW-28	MW-29	MW-30	MW-31	NM-MW-1
Sample Name:		MW-27-W-180405	MW-28-W-180405	MW-29-W-180405	MW-30-W-180406	MW-31-W-180405	NM-MW-1-W-180405
Sample Date:		04/05/2018	04/05/2018	04/05/2018	04/06/2018	04/05/2018	04/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	2400	1540	396	2240	11700	263
TDS	mg/L	4250	2660	1100	1310	17700	1400

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5	NM-MW-6	NM-MW-7
Sample Name:		NM-MW-2-W-180405	NM-MW-3-W-180405	NM-MW-4-W-180405	NM-MW-5-W-180405	NM-MW-6-W-180405	NM-MW-7-W-180405
Sample Date:		04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	610	180	34.1	134	127	2090
TDS	mg/L	1210	601	410	1300	836	4270

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		NM-MW-8	NM-MW-9	NM-MW-10	NM-MW-11	NM-MW-11	NM-MW-12
Sample Name:		NM-MW-8-W-180405	NM-MW-9-W-180405	NM-MW-10-W-180405	NM-MW-11-W-180405	NM-MW-11-WD-180405	NM-MW-12-W-180405
Sample Date:		04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/05/2018	04/05/2018
						Duplicate	
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	5110	234	301	699 J	135 J	656
TDS	mg/L	9160	807	1620	1920	1600	1430

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Location ID:		NM-MW-13	Ranch Windmill	SMITH WW WEST	Trac4	WILSON RANCH WW
Sample Name:		NM-MW-13-W-180405	RRR Ranch Windmill-WW-180405	Smith Ranch HouseWWW180405	Trac-4-W-180406	Wilson Ranch-W-180406
Sample Date:		04/05/2018	04/05/2018	04/05/2018	04/06/2018	04/06/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	180	1620	1280	401	1360
TDS	mg/L	1090	3110	2670	1040	2950

Notes:

TDS - Total Dissolved Solids
J - Estimated concentration

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

Qualified Sample Data Due to Variability in Field Duplicate Results
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2018

Parameter	Analyte	RPD	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
General Chemistry	TDS	135	NM-MW-11-W-180405	699 J	NM-MW-11-WD-180405	135 J	mg/L

Notes:

RPD - Relative Percent Difference
TDS - Total Dissolved Solids
J - Estimated concentration

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

July 20, 2018

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/20-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas July 2018**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during July 2018. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, blank spikes (BS), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Blank Spike Analyses

BS or BS/laboratory control sample duplicate (BSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the BS/BSD recoveries is used to evaluate analytical precision. The recovery ranges established by the laboratory are adopted as the acceptance criteria for the project.

For this study, BS or BS/BSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The BS or BS/BSD contained all analytes of interest. All BS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision, where applicable.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

The laboratory performed MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1. The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted five field duplicate sample sets.

To assess the analytical and sampling protocol precision, five field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-15-180703	MW-15	Water	07/03/2018	09:05	X	X	DUP
MW-16-180703	MW-16	Water	07/03/2018	09:20	X	X	
MW-21-180703	MW-21	Water	07/03/2018	09:30	X	X	
DUP-1	MW-21	Water	07/03/2018	09:30	X	X	Field duplicate of MW-21
MW-17-180703	MW-17	Water	07/03/2018	09:40	X	X	
MW-23-180703	MW-23	Water	07/03/2018	09:55	X	X	
MW-22-180703	MW-22	Water	07/03/2018	10:00	X	X	
MW-13-180703	MW-13	Water	07/03/2018	10:05	X	X	
MW-14-180703	MW-14	Water	07/03/2018	10:25	X	X	
Trac-4-180703	Trac4	Water	07/03/2018	10:30	X	X	
DUP-2	Trac4	Water	07/03/2018	10:30	X	X	Field duplicate of Trac4
MW-3	MW-3	Water	07/03/2018	10:50	X	X	
MW-4	MW-4	Water	07/03/2018	11:05	X	X	
MW-5	MW-5	Water	07/03/2018	11:20	X	X	
MW-6	MW-6	Water	07/03/2018	11:30	X	X	
MW-11	MW-11	Water	07/03/2018	11:40	X	X	
MW-25	MW-25	Water	07/03/2018	11:55	X	X	
Livermore	Livermore	Water	07/03/2018	12:10	X	X	
MW-30	MW-30	Water	07/03/2018	12:30	X	X	

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-27	MW-27	Water	07/03/2018	13:45	X	X	
MW-10	MW-10	Water	07/03/2018	14:00	X	X	
MW-24	MW-24	Water	07/03/2018	14:10	X	X	DUP
MW-31	MW-31	Water	07/03/2018	14:25	X	X	DUP
MW-12	MW-12	Water	07/03/2018	14:35	X	X	
MW-18	MW-18	Water	07/03/2018	14:45	X	X	
58-B-1-MW-W-180705	58-B-1	Water	07/05/2018	00:00	X	X	
MW-19-W-180705	MW-19	Water	07/05/2018	10:50	X	X	
MW-26-W-180705	MW-26	Water	07/05/2018	11:00	X	X	
MW-20-W-180705	MW-20	Water	07/05/2018	11:20	X	X	
44-J-4-MW-W-180705	44-J-4	Water	07/05/2018	11:25	X	X	
45-F-I-MW-W-180705	45-F-1	Water	07/05/2018	11:35	X	X	
45-FF-MW-W-180705	45-FF	Water	07/05/2018	11:40	X	X	
45-E-2-MW-W-180705	45-E-2	Water	07/05/2018	11:45	X	X	
45-E-1-MW-W-180705	45-E-1	Water	07/05/2018	11:55	X	X	
44-J-3-MW-W-180705	44-J-3	Water	07/05/2018	12:05	X	X	
44-J-5-MW-W-180705	44-J-5	Water	07/05/2018	12:15	X	X	
44-J-I-MW-W-180705	44-J-1	Water	07/05/2018	12:35	X	X	
44-I-I-MW-W-180705	44-I-1	Water	07/05/2018	12:45	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
44-J-2-MW-W-180705	44-J-2	Water	07/05/2018	13:00	X	X	
43-K-I-MW-W-180705	43-K-1	Water	07/05/2018	13:05	X	X	
45-E-3-MW-W-180705	45-E-3	Water	07/05/2018	13:15	X	X	DUP
DHU-FWS-W-180705	DHU-FWS	Water	07/05/2018	14:00	X	X	DUP
DUP-3-W-180705	DHU-FWS	Water	07/05/2018	14:00	X	X	Field duplicate of DHU-FWS
MW-8-W-180705	MW-8	Water	07/05/2018	14:15	X	X	
MW-9-W-180705	MW-9	Water	07/05/2018	14:30	X	X	
58-B-2-MW-W18705	58-B-2	Water	07/05/2018	14:40	X	X	
58-B-3-MW-W-180706	58-B-3	Water	07/06/2018	11:15	X	X	
MW-29-W-180706	MW-29	Water	07/06/2018	11:30	X	X	
MW-28-W-180706	MW-28	Water	07/06/2018	11:40	X	X	
NM-MW-11-W-180706	NM-MW-11	Water	07/06/2018	12:00	X	X	
NM-MW-13-W-180706	NM-MW-13	Water	07/06/2018	12:20	X	X	
NM-MW-10-W-180706	NM-MW-10	Water	07/06/2018	12:40	X	X	
NM-MW-6-W-180706	NM-MW-6	Water	07/06/2018	12:45	X	X	
NM-MW-12-W-180706	NM-MW-12	Water	07/06/2018	13:00	X	X	
Wilson Ranch Well-W-180706	WILSON RANCH WW	Water	07/06/2018	13:10	X	X	
DUP-4-W 180706	WILSON RANCH WW	Water	07/06/2018	13:10	X	X	Field duplicate of WILSON RANCH WW
Smith Residence-W-180706	SMITH WW WEST	Water	07/06/2018	13:20	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-9-W-180706	NM-MW-9	Water	07/06/2018	13:30	X	X	
NM-MW-5-W-180706	NM-MW-5	Water	07/06/2018	13:50	X	X	
NM-MW-1-W-180706	NM-MW-1	Water	07/06/2018	13:55	X	X	
NM-MW-2-W-180706	NM-MW-2	Water	07/06/2018	14:00	X	X	DUP
NM-MW-3-W-180706	NM-MW-3	Water	07/06/2018	14:10	X	X	
Dup-5-W-180706	NM-MW-3	Water	07/06/2018	14:10	X	X	Field duplicate of NM-MW-3
NM-MW-7-W-180706	NM-MW-7	Water	07/06/2018	14:20	X	X	
RRR Ranch Windmill-W-180706	Ranch Windmill	Water	07/06/2018	14:30	X	X	
NM-MW-4-W-180706	NM-MW-4	Water	07/06/2018	14:45	X	X	
NM-MW-8-W-180706	NM-MW-8	Water	07/06/2018	15:00	X	X	

Notes:

TDS - Total Dissolved Solids
DUP - Laboratory Duplicate

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		43-K-1	44-I-1	44-J-1	44-J-2	44-J-3	44-J-4
Sample Name:		43-K-I-MW-W-180705	44-I-I-MW-W-180705	44-J-I-MW-W-180705	44-J-2-MW-W-180705	44-J-3-MW-W-180705	44-J-4-MW-W-180705
Sample Date:		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	7840	3170	4300	5050	5290	4520
TDS	mg/L	12700	5450	6910	8000	9230	7430

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		44-J-5	45-E-1	45-E-2	45-E-3	45-F-1	45-FF
Sample Name:		44-J-5-MW-W-180705	45-E-1-MW-W-180705	45-E-2-MW-W-180705	45-E-3-MW-W-180705	45-F-I-MW-W-180705	45-FF-MW-W-180705
Sample Date:		07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018	07/05/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	4060	2530	1790	3360	923	5310
TDS	mg/L	6600	4220	3130	5750	1840	9090

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		58-B-1	58-B-2	58-B-3	DHU-FWS	DHU-FWS	Livermore
Sample Name:		58-B-1-MW-W-180705	58-B-2-MW-W18705	58-B-3-MW-W-180706	DHU-FWS-W-180705	DUP-3-W-180705	Livermore
Sample Date:		07/05/2018	07/05/2018	07/06/2018	07/05/2018	07/05/2018	07/03/2018
						Duplicate	
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	6440	3900	976	593	593	2560
TDS	mg/L	10000	6410	1580	2710	2860	4580

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		MW-3	MW-4	MW-5	MW-6	MW-8	MW-9	MW-10
Sample Name:		MW-3	MW-4	MW-5	MW-6	MW-8-W-180705	MW-9-W-180705	MW-10
Sample Date:		07/03/2018	07/03/2018	07/03/2018	07/03/2018	07/05/2018	07/05/2018	07/03/2018
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	593	338	274	402	868	2880	5340
TDS	mg/L	1310	831	1020	1340	2350	4250	11000

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17
Sample Name:		MW-11	MW-12	MW-13-180703	MW-14-180703	MW-15-180703	MW-16-180703	MW-17-180703
Sample Date:		07/03/2018	07/03/2018	07/03/2018	07/03/2018	07/03/2018	07/03/2018	07/03/2018
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	7940	13200	2280	1540	914	430	8570
TDS	mg/L	11800	20200	4560	2660	1650	1160	15000

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		MW-18	MW-19	MW-20	MW-21	MW-21	MW-22	MW-23
Sample Name:		MW-18	MW-19-W-180705	MW-20-W-180705	MW-21-180703	DUP-1	MW-22-180703	MW-23-180703
Sample Date:		07/03/2018	07/05/2018	07/05/2018	07/03/2018	07/03/2018 Duplicate	07/03/2018	07/03/2018
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	22000	6580	1150	6860	6050	10300	4390
TDS	mg/L	38500	11500	2160	11100	10000	16300	6870

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		MW-24	MW-25	MW-26	MW-27	MW-28	MW-29	MW-30
Sample Name:		MW-24	MW-25	MW-26-W-180705	MW-27	MW-28-W-180706	MW-29-W-180706	MW-30
Sample Date:		07/03/2018	07/03/2018	07/05/2018	07/03/2018	07/06/2018	07/06/2018	07/03/2018
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	4140	23600	1210	2510	1610	397	2280
TDS	mg/L	8210	37600	2810	4790	2540	860	3650

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		MW-31	NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-3	NM-MW-4
Sample Name:		MW-31	NM-MW-1-W-180706	NM-MW-2-W-180706	NM-MW-3-W-180706	Dup-5-W-180706	NM-MW-4-W-180706
Sample Date:		07/03/2018	07/06/2018	07/06/2018	07/06/2018	07/06/2018 Duplicate	07/06/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	12100	275	679	220	213	40.6
TDS	mg/L	19800	1350	1160	625	631	414

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		NM-MW-5	NM-MW-6	NM-MW-7	NM-MW-8	NM-MW-9	NM-MW-10
Sample Name:		NM-MW-5-W-180706	NM-MW-6-W-180706	NM-MW-7-W-180706	NM-MW-8-W-180706	NM-MW-9-W-180706	NM-MW-10-W-180706
Sample Date:		07/06/2018	07/06/2018	07/06/2018	07/06/2018	07/06/2018	07/06/2018
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	140	134	2330	5960	252	308
TDS	mg/L	1240	801	3780	9620	785	1450

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		NM-MW-11	NM-MW-12	NM-MW-13	Ranch Windmill	SMITH WW WEST
Sample Name:		NM-MW-11-W-180706	NM-MW-12-W-180706	NM-MW-13-W-180706	RRR Ranch Windmill-W-180706	Smith Residence-W-180706
Sample Date:		07/06/2018	07/06/2018	07/06/2018	07/06/2018	07/06/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	143	665	184	1670	1340
TDS	mg/L	1820	1250	1050	3030	2140

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Location ID:		Trac4	Trac4	WILSON RANCH WW	WILSON RANCH WW
Sample Name:		Trac-4-180703	DUP-2	Wilson Ranch Well-W-180706	DUP-4-W 180706
Sample Date:		07/03/2018	07/03/2018 Duplicate	07/06/2018	07/06/2018 Duplicate
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	343	327	1330	1370
TDS	mg/L	1040	1060	2190	2220

Notes:

TDS - Total Dissolved Solids
J - Estimated concentration

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
July 2018

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

October 19, 2018

To:	Nick Casten, Brittany White	Ref. No.:	055270
From:	Chris G. Knight/eew/21-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas October 2018**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during October 2018. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control samples (LCS), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained chloride. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines".

i) All MS/MSD samples were reported with elevated recoveries for chloride analysis due to possible matrix interferences and were not assessed. No further action was required.

The laboratory performed additional MS/MSD on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for total dissolved solids (TDS). The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted two field duplicate sample sets.

To assess the analytical and sampling protocol precision, two field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-8-W-181003	NM-MW-8	Water	10/03/2018	09:25	X	X	DUP
NM-MW-4-W-181003	NM-MW-4	Water	10/03/2018	09:35	X	X	
RRR-Ranch-W-181003	Ranch Windmill	Water	10/03/2018	09:55	X	X	
NM-MW-7-W-181003	NM-MW-7	Water	10/03/2018	10:05	X	X	
NM-MW-3-W-181003	NM-MW-3	Water	10/03/2018	10:15	X	X	
NM-MW-2-W-181003	NM-MW-2	Water	10/03/2018	10:30	X	X	
NM-MW-1-W-181003	NM-MW-1	Water	10/03/2018	10:35	X	X	
NM-MW-5-W-181003	NM-MW-5	Water	10/03/2018	10:45	X	X	
NM-MW-6-W-181003	NM-MW-6	Water	10/03/2018	11:00	X	X	
NM-MW-11-W-181003	NM-MW-11	Water	10/03/2018	11:10	X	X	
NM-MW-13-W-181003	NM-MW-13	Water	10/03/2018	11:40	X	X	
NM-MW-10-W-181003	NM-MW-10	Water	10/03/2018	12:05	X	X	
NM-MW-12-W-181003	NM-MW-12	Water	10/03/2018	12:25	X	X	
Wilson-W-181003	WILSON RANCH WW	Water	10/03/2018	12:35	X	X	
Wilson-WD-181003	WILSON RANCH WW	Water	10/03/2018	12:35	X	X	Field duplicate of WILSON RANCH WW
NM-MW-9-W-181003	NM-MW-9	Water	10/03/2018	12:50	X	X	
Smith-W-181003	SMITH RESIDENCE	Water	10/03/2018	13:00	X	X	
MW-29-W-181003	MW-29	Water	10/03/2018	13:15	X	X	MS/MSD
MW-28-W-181003	MW-28	Water	10/03/2018	13:25	X	X	

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-9-W-181003	MW-9	Water	10/03/2018	14:00	X	X	DUP
MW-8-W-181003	MW-8	Water	10/03/2018	14:15	X	X	
DHU-FWS-W-181003	DHU-FWS	Water	10/03/2018	14:25	X	X	
MW-27-W-181003	MW-27	Water	10/03/2018	14:30	X	X	
MW-20-W-181003	MW-20	Water	10/03/2018	14:40	X	X	DUP
MW-10-W-181003	MW-10	Water	10/03/2018	14:55	X	X	DUP
MW-19-W-181004	MW-19	Water	10/04/2018	09:35	X	X	
MW-18-W-181004	MW-18	Water	10/04/2018	09:45	X	X	
MW-12-W-181004	MW-12	Water	10/04/2018	09:55	X	X	
MW-24-W-181004	MW-24	Water	10/04/2018	10:05	X	X	
MW-26-W-181004	MW-26	Water	10/04/2018	10:15	X	X	
MW-31-W-181004	MW-31	Water	10/04/2018	10:25	X	X	
MW-25-W-181004	MW-25	Water	10/04/2018	10:35	X	X	
MW-11-W-181004	MW-11	Water	10/04/2018	10:45	X	X	
MW-6-W-181004	MW-6	Water	10/04/2018	10:55	X	X	MS/MSD
MW-5-W-181004	MW-5	Water	10/04/2018	11:05	X	X	
MW-3-W-181004	MW-3	Water	10/04/2018	11:15	X	X	
TRACT-4-W-181004	Trac4	Water	10/04/2018	11:25	X	X	
TRACT-4-WD-181004	Trac4	Water	10/04/2018	11:25	X	X	Field duplicate of Trac4

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-14-W-181004	MW-14	Water	10/04/2018	11:40	X	X	
MW-4-W-181004	MW-4	Water	10/04/2018	11:50	X	X	
MW-13-W-181004	MW-13	Water	10/04/2018	12:15	X	X	
MW-30-W-181004	MW-30	Water	10/04/2018	12:25	X	X	
Livermore-W-181004	Livermore	Water	10/04/2018	12:35	X	X	
MW-23-W-181004	MW-23	Water	10/04/2018	12:45	X	X	DUP
MW-22-W-181004	MW-22	Water	10/04/2018	12:50	X	X	DUP
MW-17-W-181004	MW-17	Water	10/04/2018	13:00	X	X	
MW-21-W-181004	MW-21	Water	10/04/2018	13:05	X	X	
MW-16-W-181004	MW-16	Water	10/04/2018	13:20	X	X	MS/MSD
MW-15-W-181004	MW-15	Water	10/04/2018	13:30	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		DHU-FWS	Livermore	MW-3	MW-4	MW-5
Sample Name:		DHU-FWS-W-181003	Livermore-W-181004	MW-3-W-181004	MW-4-W-181004	MW-5-W-181004
Sample Date:		10/03/2018	10/04/2018	10/04/2018	10/04/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	596	2710	626	350	278
TDS	mg/L	2830	4020	1310	883	1050

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		MW-6	MW-8	MW-9	MW-10	MW-11
Sample Name:		MW-6-W-181004	MW-8-W-181003	MW-9-W-181003	MW-10-W-181003	MW-11-W-181004
Sample Date:		10/04/2018	10/03/2018	10/03/2018	10/03/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	404	888	2910	5880	8310
TDS	mg/L	1450	2490	4270	8570	12000

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		MW-12	MW-13	MW-14	MW-15	MW-16
Sample Name:		MW-12-W-181004	MW-13-W-181004	MW-14-W-181004	MW-15-W-181004	MW-16-W-181004
Sample Date:		10/04/2018	10/04/2018	10/04/2018	10/04/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	15000	2200	1690	1030	474
TDS	mg/L	24400	3900	2620	1740	1210

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		MW-17	MW-18	MW-19	MW-20	MW-21
Sample Name:		MW-17-W-181004	MW-18-W-181004	MW-19-W-181004	MW-20-W-181003	MW-21-W-181004
Sample Date:		10/04/2018	10/04/2018	10/04/2018	10/03/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	11300	21100	6980	1340	7400
TDS	mg/L	17700	31600	11600	2490	11400

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		MW-22	MW-23	MW-24	MW-25	MW-26
Sample Name:		MW-22-W-181004	MW-23-W-181004	MW-24-W-181004	MW-25-W-181004	MW-26-W-181004
Sample Date:		10/04/2018	10/04/2018	10/04/2018	10/04/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	14200	6090	4850	26500	1340
TDS	mg/L	18700	8980	8870	39000	2750

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		MW-27	MW-28	MW-29	MW-30	MW-31
Sample Name:		MW-27-W-181003	MW-28-W-181003	MW-29-W-181003	MW-30-W-181004	MW-31-W-181004
Sample Date:		10/03/2018	10/03/2018	10/03/2018	10/04/2018	10/04/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	3030	1760	409	2550	12800
TDS	mg/L	4700	3020	1070	3820	19500

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5
Sample Name:		NM-MW-1-W-181003	NM-MW-2-W-181003	NM-MW-3-W-181003	NM-MW-4-W-181003	NM-MW-5-W-181003
Sample Date:		10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	279	674	246	39.7	138
TDS	mg/L	1460	1270	708	411	1290

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		NM-MW-6	NM-MW-7	NM-MW-8	NM-MW-9	NM-MW-10
Sample Name:		NM-MW-6-W-181003	NM-MW-7-W-181003	NM-MW-8-W-181003	NM-MW-9-W-181003	NM-MW-10-W-181003
Sample Date:		10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	138	2380	6260	258	315
TDS	mg/L	833	4050	11000	799	1520

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		NM-MW-11	NM-MW-12	NM-MW-13	Ranch Windmill	SMITH RESIDENCE
Sample Name:		NM-MW-11-W-181003	NM-MW-12-W-181003	NM-MW-13-W-181003	RRR-Ranch-W-181003	Smith-W-181003
Sample Date:		10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018
Parameters	**Unit**					
General Chemistry						
Chloride	mg/L	152	668	185	1660	1310
TDS	mg/L	1920	1390	1110	3000	2260

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Location ID:		Trac4	Trac4	WILSON RANCH WW	WILSON RANCH WW
Sample Name:		TRACT-4-W-181004	TRACT-4-WD-181004	Wilson-W-181003	Wilson-WD-181003
Sample Date:		10/04/2018	10/04/2018	10/03/2018	10/03/2018
			Duplicate		Duplicate
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	347	392	1380	1380
TDS	mg/L	1070	1110	2680	2590

Notes:

TDS - Total Dissolved Solids

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
October 2018

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM



about GHD

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

Nicholas G. Casten
Nick.Casten@GHD.com
225.292.9007

Brittany White
Brittany.White@GHD.com
225.292.9007

www.ghd.com

Received by OCD: 3/23/2023 11:36:17 AM

Accepted - 05/18/2023

NV

Adriane Gifford
Project Manager

Upstream Business Unit
Environmental Management Company
1500 Louisiana Street
Room 38108
Houston, Texas 77002
Tel 832-854-5620
agifford@chevron.com

July 31, 2020

Mr. Bradford Billings
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Semi-Annual Groundwater Monitoring Report (January to June 2020)
Chevron Dollarhide Groundwater Remediation Site
Andrews County, Texas
RRC OCP No. 08-1048
NMOCD RP No. 1R-3944

Dear Mr. Billings:

Chevron Environmental Management Company (CEMC) submits herein to the New Mexico Oil Conservation Division (OCD) the *Semi-Annual Groundwater Monitoring Report (January to June 2020)* for the Chevron Dollarhide Oil Field Unit located in Andrews County, Texas (Site). This report was prepared by GHD Services Inc. (GHD), on behalf of CEMC, to document groundwater monitoring activities performed at the Site during the above referenced reporting period.

If you have any questions regarding this submittal, please contact me at (832) 854-5620 or Nick Casten of GHD at (225) 296-6513.

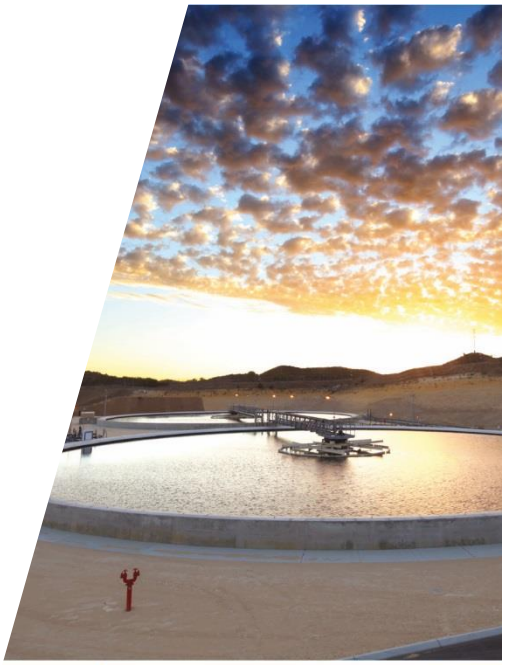
Respectfully,
Chevron Environmental Management Company on behalf of Chevron U.S.A. Inc.

Adriane Gifford
Project Manager

Encl.

cc: Kent Stallings – RRC Site Remediation Section
Nick Casten – GHD

Released to Imaging: 11/21/2023 10:32:34 AM



Semi-Annual Groundwater Monitoring Report (January to June 2020)

Dollarhide Oil Field Unit
Andrews County, Texas
RRC OCP No. 08-1048
OCD RP No. 1R-3944

Chevron Environmental Management Company









Table of Contents

1. Introduction 1
2. Background 1
3. Regulatory Framework 2
4. Groundwater Recovery 3
5. 2019 Groundwater Investigation 3
   5.1 Monitor Well Construction 3
6. Groundwater Monitoring 4
   6.1 Potentiometric Conditions 4
   6.2 Groundwater Sampling 4
   6.3 Analytical Results 5
   6.4 Quality Assurance/Quality Control 5
7. Conclusions and Path Forward 5

Figure Index

Figure 1 Site Vicinity Map
Figure 2 Site Details Map
Figure 3 January 2020 Groundwater Potentiometric Elevations and Contours
Figure 4 April 2020 Groundwater Potentiometric Elevations and Contours
Figure 5 January 2020 Groundwater Chloride Concentrations and Isopleths
Figure 6 April 2020 Groundwater Chloride Concentrations and Isopleths
Figure 7 January 2020 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths
Figure 8 April 2020 Groundwater Total Dissolved Solids (TDS) Concentrations and Isopleths

Table Index

Table 1 Groundwater Well Designations
Table 2 January 2020 Groundwater Elevation Measurements
Table 3 February 2020 Groundwater Elevation Measurements
Table 4 April 2020 Groundwater Elevation Measurements
Table 5 First Half 2020 Groundwater Analytical Results Summary

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix Index

Appendix A	Soil Boring Logs
Appendix B	Well Reports
Appendix C	Monitor Well Construction Diagrams
Appendix D	Historical Groundwater Elevations
Appendix E	Groundwater Sample Analytical Laboratory Reports
Appendix F	Historical Groundwater Analytical Data
Appendix G	Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

1. Introduction

GHD Services Inc. (GHD), on behalf of Chevron Environmental Management Company (CEMC), submits herein to the Railroad Commission of Texas (RRC) the *Semi-Annual Groundwater Monitoring Report (January to June 2020)* for the Dollarhide Oil Field Unit located in Andrews County, Texas (Site). The latitude/longitude coordinates for the Site are 32º 08' 45.60" N and 103º 03' 20.12" W, and a vicinity map showing the Site location is included as Figure 1. This report presents a summary and evaluation of the annual groundwater monitoring data collected in the first half of 2020.

2. Background

It is believed that historical operations at the Site have contributed to elevated chloride concentrations in groundwater in the Ogallala Aquifer. The Site was discovered as an oil and gas production field in 1945 and, over the years, was owned and operated and/or leased by various companies that disposed of excess produced water and drilling fluids into pits. The use of pits for water disposal ceased in 1967, and the Site operators began using an injection system for disposal. In 1971, the first evidence of elevated chloride concentrations in groundwater was identified in Tract 26, and then in 1974 in Tract 45. Groundwater assessment was initiated in 1974, and groundwater recovery was initiated in 1994 by Union Oil Company of California (Unocal).

Representatives of Unocal and the RRC participated in a meeting on June 2, 1994, to discuss the installation of 24 recovery wells located in Texas along the Texas and New Mexico State Line to remove chloride-impacted groundwater from the Ogallala aquifer. Unocal received RRC approval of the recovery system in written correspondence on July 7, 1994. Since 1994, two additional recovery wells were installed, totaling 26 recovery wells that recovered groundwater from the Site. The recovered groundwater was pumped into two on-Site injection wells for oil reservoir pressure maintenance. Chevron Corporation purchased Unocal in August 2005. Since that time, Chevron U.S.A., Inc. (Chevron) continued to operate the groundwater recovery system until the system shutdown in November 2017, with concurrence from the RRC and New Mexico Oil Conservation Division (OCD).

Former Pits

Prior to the 1970s, it was an accepted practice in oil field operations to store produced water in pits adjacent to well locations. After livestock water wells in the vicinity of the Site began exhibiting elevated chloride concentrations, soil borings were installed in all former pit locations to assess possible chlorides in soil leaching to groundwater. Historical aerial photographs were reviewed to assess potential source areas. A 1955 aerial photograph identified the presence of approximately 84 former produced water (brine) pits adjacent to Site well locations. A large-scale evaporation pit located to the northwest of the existing gas plant that had been utilized to store mixed brine was identified as a potential source area. Soil samples were collected from various depths within the former pits and were submitted for laboratory analysis of chlorides. Former pit locations with soil chloride concentrations less than 700 parts per million (ppm) were determined not to be potential

Released to Imaging: 11/21/2023 10:32:34 AM

source areas and were left in place. The former pit locations with soil chloride concentrations greater than 700 ppm were determined to be potential source areas, and Unocal capped the pits with a geosynthetic clay liner to prevent any further leaching of chlorides.

Light Non-Aqueous Phase Liquid

During a groundwater sampling event in January 2000, dissolved hydrocarbon constituents and light non-aqueous phase liquid (LNAPL) were detected in recovery well 44-J-WW during a routine groundwater sampling event. The LNAPL exhibited elevated concentrations of hydrocarbons in the C_6-C_{12} range, indicative of natural gas liquids. A north-south trending underground pipeline that contains hydrocarbon products, operated by another company (not Chevron), is located within 100 feet of monitor well 44-J-WW. Soil investigations were conducted in 2000 by Unocal and 2011 by CEMC, to determine the source area of the release; however, no hydrocarbon impacts were detected in soil. On November 5, 2010, LNAPL was discovered in two additional recovery wells, 44-I-WW and 44-II-WW, during routine operation and maintenance. Due to the presence of LNAPL, these three wells remained inactive through November 2017, when the groundwater recovery system was shut down to prevent the introduction of LNAPL into the groundwater recovery system. The LNAPL identified in these three wells (44-J-WW, 44-I-WW, and 44-II-WW) is not located near any Chevron assets that contain hydrocarbons, and the LNAPL is believed to be associated with other third-party pipelines in the vicinity. LNAPL investigation efforts have been summarized in previous reports that have been submitted to the RRC.

3. Regulatory Framework

The RRC has regulatory jurisdiction over oil and gas production operations in the State of Texas. CEMC has been working under the guidance of the RRC to address the groundwater chloride impacts as a result of historic operations at the Site. Under the RRC, the Site is regulated under Title 16 of the Texas Administrative Code (TAC) Chapter 3 (relating to the Oil and Gas Division) Rule §3.8(b) (Statewide Rule 8 Water Protection).

On October 13, 2015, representatives of the OCD and CEMC participated in a meeting at the OCD office in Santa Fe, New Mexico, to discuss the installation of groundwater monitor wells on CEMC-owned property in New Mexico to delineate and to further assess the impacts to the Site's groundwater with respect to chlorides and total dissolved solids (TDS). Subsequent to the meeting, CEMC submitted a Release Notification and Corrective Action (C-141) Form in a written correspondence on October 28, 2015, per OCD's request, in order to establish a file for the Site. Following the 2015 meeting with the OCD, CEMC completed groundwater investigations in 2015, 2016, and 2017 that included installation of monitor wells in Texas and New Mexico to further delineate the plume boundary.

On May 16, 2017, representatives from CEMC and GHD met with the RRC and the OCD at their respective offices. The meeting was held via teleconference to provide a project status update to both regulatory agencies and to ensure that the regulatory agencies involved in the project are in alignment with the path forward for the Site. During the joint regulatory meeting, the current and future use of the recovery system was discussed. CEMC informed the RRC and OCD of its intentions to temporarily shut down the groundwater recovery system in the fourth quarter of 2017,

Released to Imaging: 11/21/2023 10:32:34 AM

for at least one calendar year, to evaluate non-pumping aquifer and plume conditions. The RRC and OCD agreed with this approach and the groundwater recovery system was shut down in November 2017.

4. Groundwater Recovery

In the fourth quarter of 2018, representatives from CEMC and GHD met with the RRC (November 28, 2018) and the OCD (December 13, 2018) at their respective offices. The purpose of these meetings was to provide a project status update to both regulatory agencies and discuss the path forward for the Site. During both 2018 regulatory meetings, CEMC informed the RRC and the OCD of its intentions to permanently shut down the groundwater recovery system. The RRC and OCD both agreed with this approach, and the groundwater recovery system will remain permanently shut down.

5. 2019 Groundwater Investigation

A preliminary groundwater model and future developments were presented to both agencies during the 2018 regulatory meetings. This development includes refining the groundwater model after completing an additional groundwater investigation in 2019. CEMC submitted a work plan in February 2019 proposing to install eleven new monitor wells. The RRC reviewed the work plan and approved of the proposed activities with a request for semi-annual report submittals. The objective of the investigation is to establish long-term plume management monitoring points in Texas and further delineate the downgradient groundwater plume boundary in both states. Additionally, the newly installed wells in New Mexico will be used to identify bedrock elevations across the Dollarhide field and the Monument Draw, saturated thickness of the Ogallala aquifer, and groundwater flow conditions. The data from the analysis of the new wells will be used to fill in gaps identified in the Conceptual Site Model.

The proposed 2019 investigation activities were split into two events by state, Texas monitor well installation and New Mexico monitor well installation. Three monitor wells were installed in Texas in April 2019. Due to delays with access agreements and permitting, the monitor well installation in New Mexico was delayed until January 2020. The data collected from the New Mexico well installation event is included in this report.

5.1 Monitor Well Construction

Between January 21 and January 31, 2020, six monitor wells (NM-MW-14, NM-MW-15, NM-MW-16, NM-MW-17, NM-MW-20, and NM-MW-21) were installed using roto-sonic drilling methods to total depths ranging from approximately 82 to 104 feet below ground surface (bgs). Soil boring logs are included in Appendix A. A deeper well was also proposed near existing monitor well NM-MW-13. However, it was determined during the installation of the boring for the well that a deeper saturated zone did not exist at that location and no well was installed. All wells were constructed using 4-inch diameter schedule 40 PVC casing with 0.020-inch slotted PVC well screens adjacent to the bottom 10 to 20 feet of the wells. Each well was sealed using a

Released to Imaging: 11/21/2023 10:32:34 AM

cement/bentonite grout to the ground surface. Surface completions consisted of a concrete pad and approximately 3 feet of PVC casing stickups encased in locking steel well vaults. Copies of the State of Texas Well Reports are included in Appendix B, and the monitor well construction diagrams are included in Appendix C.

6. Groundwater Monitoring

Groundwater sampling was initiated in 2008 at the Site on a semi-annual basis. In 2017, CEMC initiated quarterly groundwater sampling to provide concentration data trends. Currently, groundwater monitoring at the Site is being performed on a quarterly basis, with events conducted in January, April, July, and October. The groundwater monitoring system consists of 67 monitor wells and 8 non-remedial wells screened in the Ogallala Aquifer approximately 120 feet bgs Groundwater well designations are shown on Figure 2 and listed in Table 1. During the January and July events, all viable wells in the groundwater monitoring system are sampled. During the voluntary April and October events, only the wells installed during the 2015, 2016, 2017, 2019, and 2020 groundwater investigations are sampled to develop concentration trends over time.

During the first quarter sampling event of 2020, all wells were sampled in January, with the exception of the six wells that were being constructed at the time of the event. As a result, these six wells were sampled in February. The first quarter sampling event of 2020 is therefore described as the January 2020 sampling event herein; however, it includes groundwater data collected in both January and February. The groundwater data collected during the January and April 2020 events are discussed below.

6.1 Potentiometric Conditions

Prior to sampling during each event, depth-to-groundwater measurements were collected at each well with an oil/water interface probe, with an accuracy of 0.01 foot, to determine the groundwater elevation in each well. Groundwater potentiometric elevations and contours for the January and April 2020 events are shown on Figures 3 and 4, respectively. The measurements indicate that the groundwater flow direction is generally to the southwest which is consistent with previous events. A summary of the depth-to-groundwater measurements and the corresponding groundwater elevations is included in Tables 2, 3, and 4. Historical groundwater elevations are included in Appendix D.

6.2 Groundwater Sampling

During the January and April 2020 sampling events, investigative groundwater samples were collected via no-purge grab sampling techniques. The groundwater samples were collected directly from the screened interval of each well using a HydraSleeve. The HydraSleeve is deployed during the gauging event to allow the well to return to equilibrium prior to sampling. Groundwater samples were collected in laboratory-supplied containers, preserved on ice, and transported to Xenco Laboratories located in Midland, Texas, following proper chain-of-custody procedures. All groundwater samples were submitted for analysis of chloride by United States Environmental Protection Agency (EPA) Method 300/300.1 and TDS by EPA Method SM2540C. The results

Released to Imaging: 11/21/2023 10:32:34 AM

received from Xenco Laboratories for the January and April 2020 sampling events are reported herein.

6.3 Analytical Results

Groundwater sample analytical results were compared to the Texas Commission of Environmental Quality (TCEQ) Secondary Drinking Water Standards and Secondary Constituent levels for chlorides (300 milligrams per liter [mg/L]) and TDS (1,000 mg/L). The groundwater sample analytical results from the January and April 2020 events are listed in Table 5. The groundwater chloride and TDS concentrations and isopleths for the January and April 2020 sampling events are shown on Figures 5 through 8, and the analytical laboratory reports are included in Appendix E. The concentrations of chlorides and TDS are generally consistent with historical events. The installation of the new wells has now fully delineated the chloride plume in the downgradient direction in both Texas and New Mexico. A table of historical analytical results is included in Appendix F.

6.4 Quality Assurance/Quality Control

During the January and April 2020 sampling events, six duplicate samples were collected for chloride and TDS during each sampling event to confirm sample quality and reproducibility. No significant deviations were encountered in the sample results for duplicate constituents. All certified groundwater laboratory reports received during the January and April 2020 sampling events were reviewed by a GHD analytical chemist for laboratory and field method quality assurance/quality control (QA/QC). All laboratory reports were approved, and the associated data validation reports issued by GHD are included in Appendix G.

7. Conclusions and Path Forward

The results of the 2020 groundwater monitoring events will be used to update the groundwater model and to continue development for the strategy and path forward for the Site. CEMC will continue conducting quarterly monitoring only for the monitor wells recently installed in 2015, 2016, 2017, 2019, and 2020. Monitor wells installed prior to 2015 will continue to be sampled semi-annually.

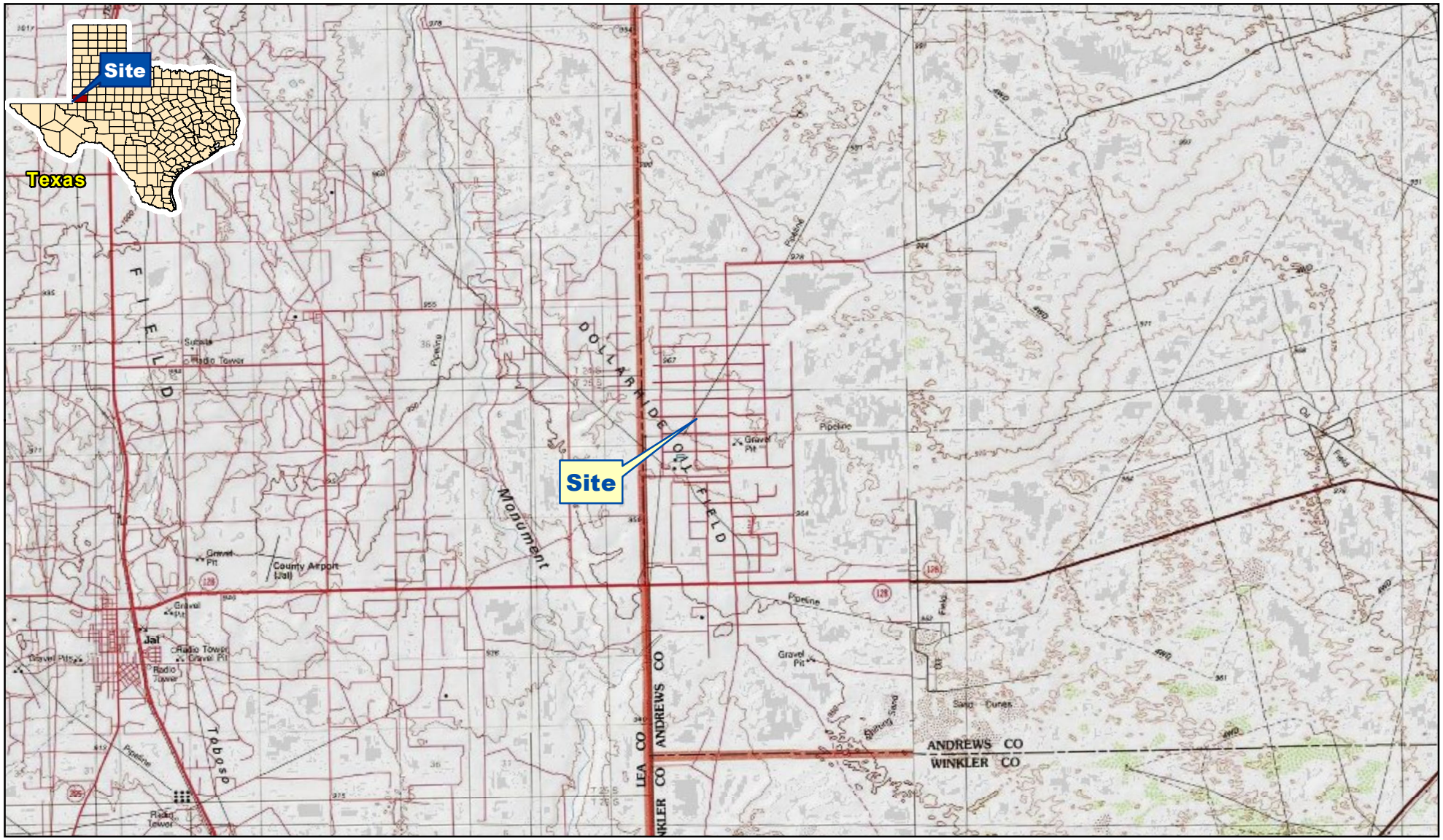
Should you have any questions regarding this submittal, please contact Nick G. Casten of GHD at (225) 296-6513 or Adriane Gifford of CEMC at (832) 854-5620.

All of which is Respectfully Submitted

GHD,

Nicholas G. Casten

Brian L. Carter, PhD
Texas PG No. 10319



Source: USGS 7.5 Minute Topographic Maps.

0 1 2
Miles

Coordinate System:
NAD 1983 UTM Zone 13N

N

GHD

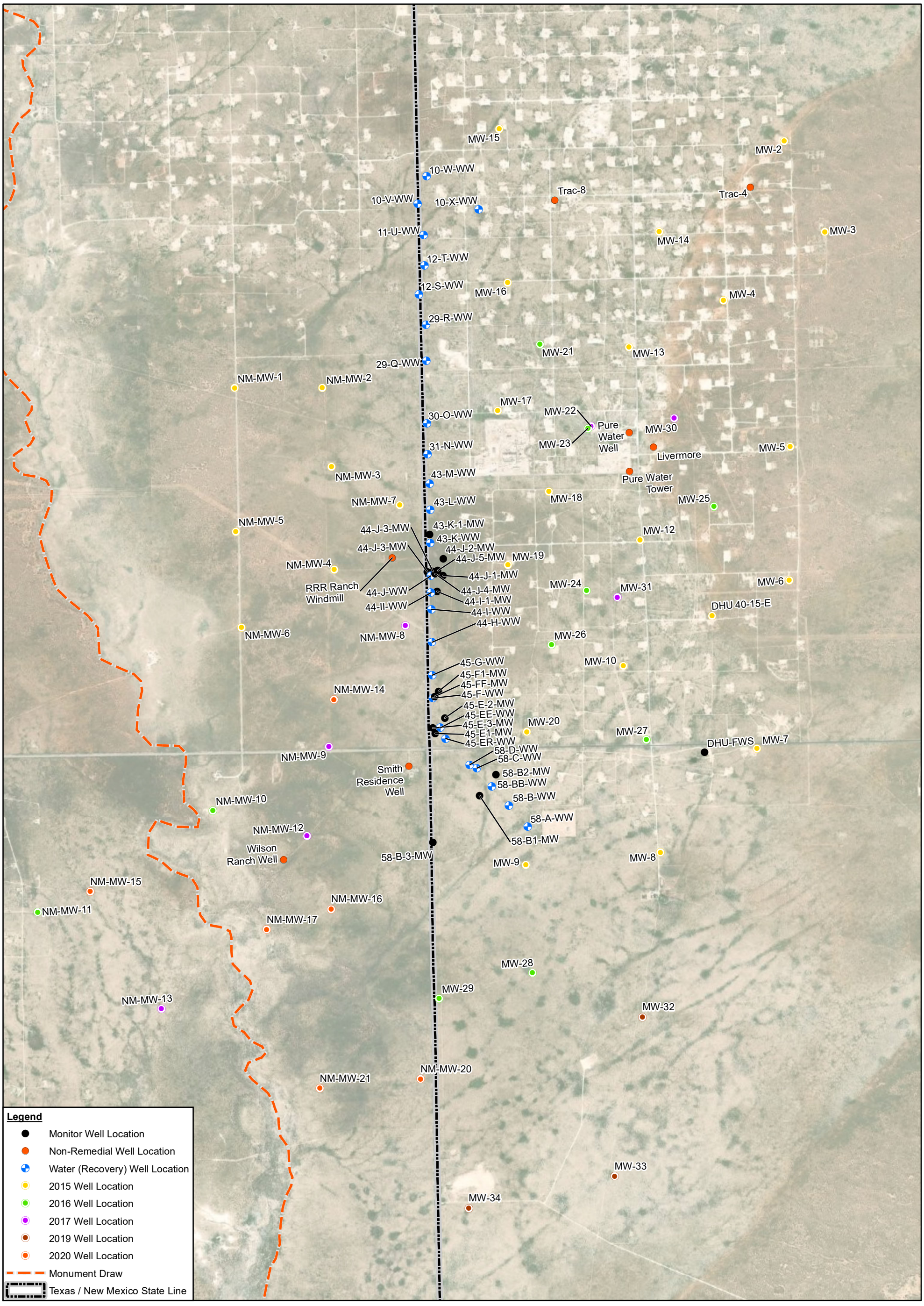
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
CHEVRON DOLLARHIDE UNIT

055270
Jun 30, 2020

SITE VICINITY MAP

FIGURE 1

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR001.mxd



Source: ESRI World Imagery Basemap Service, Digital Globe: 10/11/2016

0 1,350 2,700
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

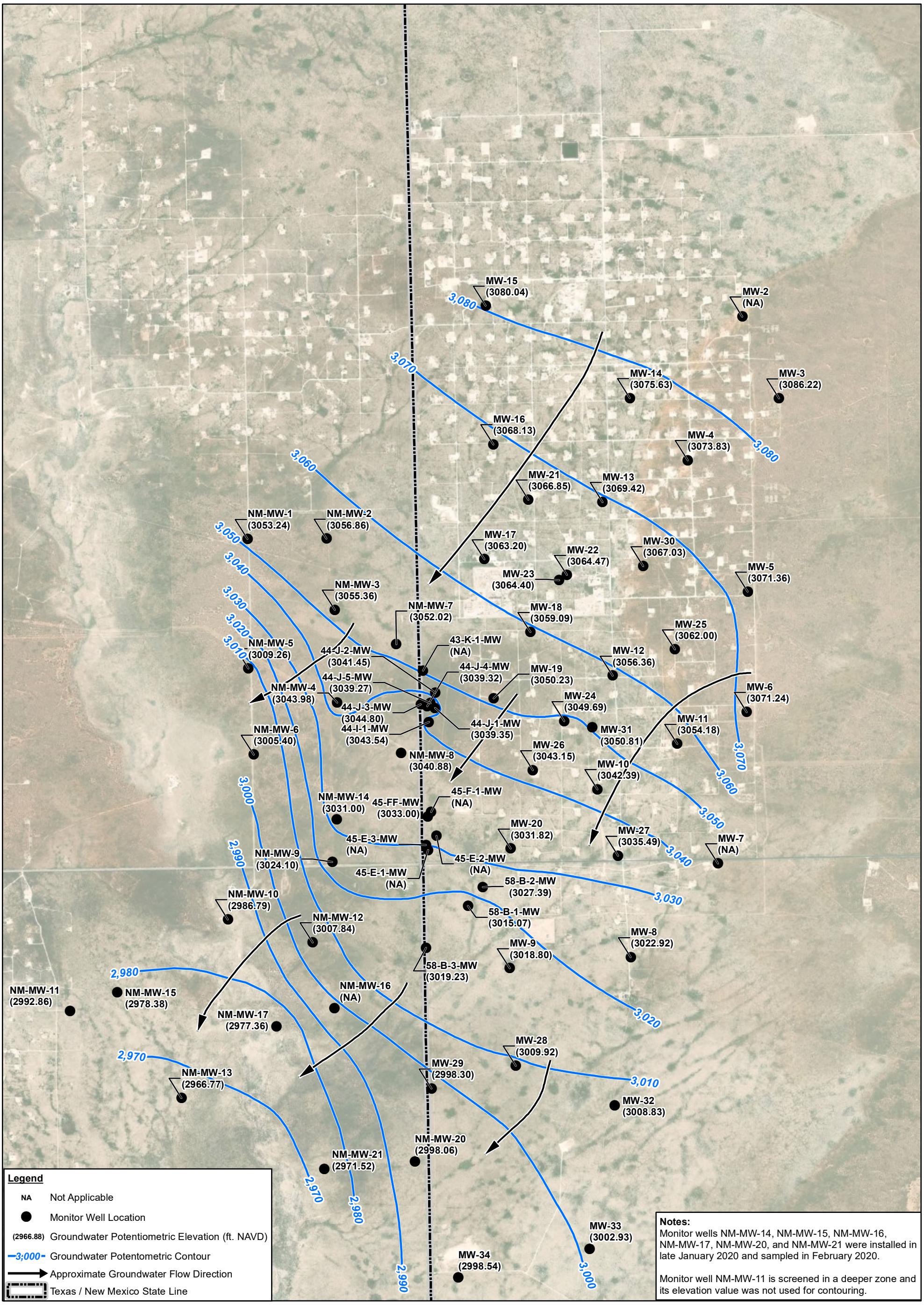
055270
Jul 2, 2020

SITE DETAILS MAP

FIGURE 2

GIS File: I:\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR002.mxd

Released to Imaging: 11/21/2023 10:32:34 AM



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

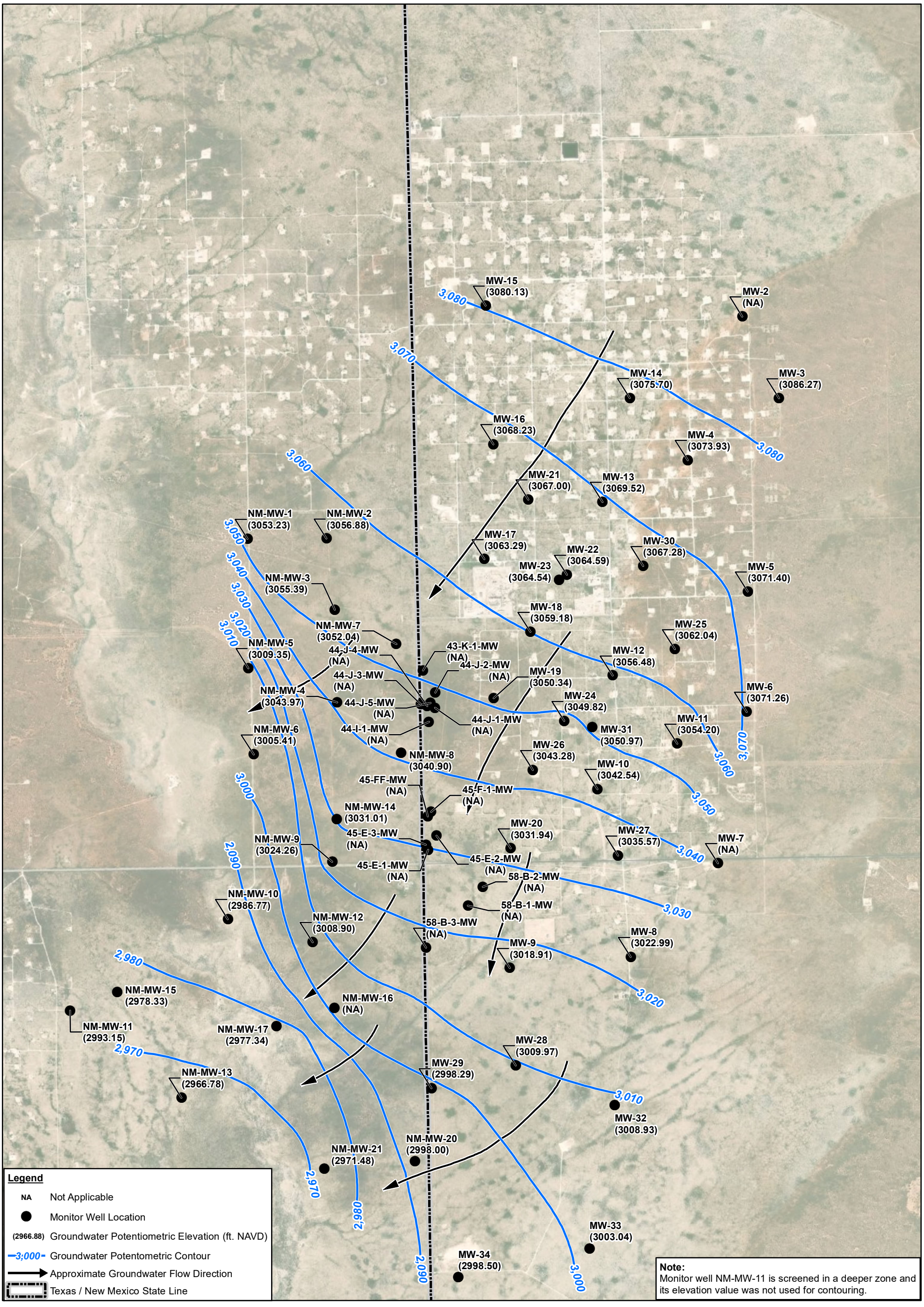
JANUARY 2020 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Jul 17, 2020

FIGURE 3

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR003.mxd

Released to Imaging: 11/21/2023 10:32:34 AM



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

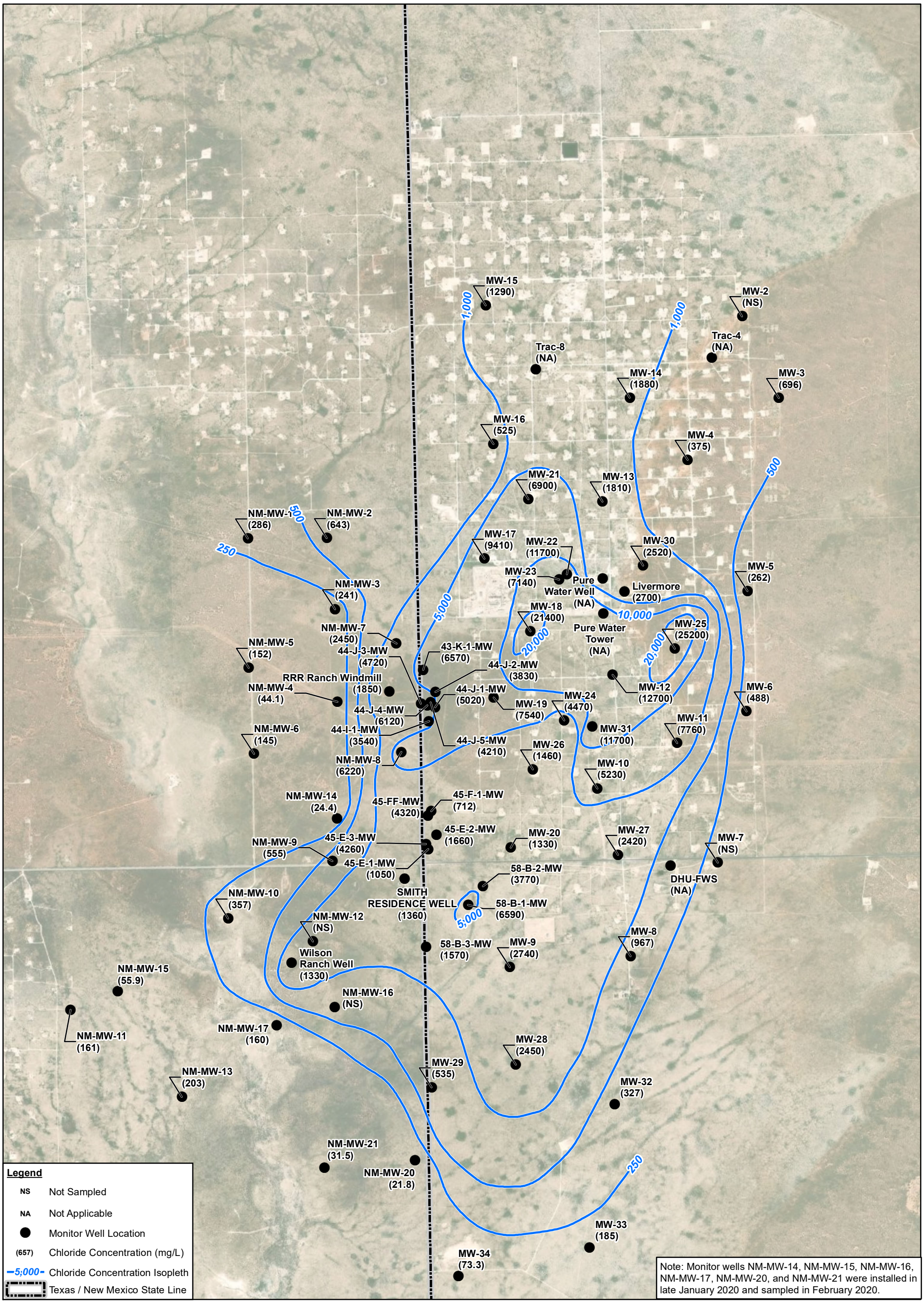
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2020 GROUNDWATER POTENTIOMETRIC ELEVATIONS & CONTOURS

055270
Jul 17, 2020

FIGURE 4

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR004.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

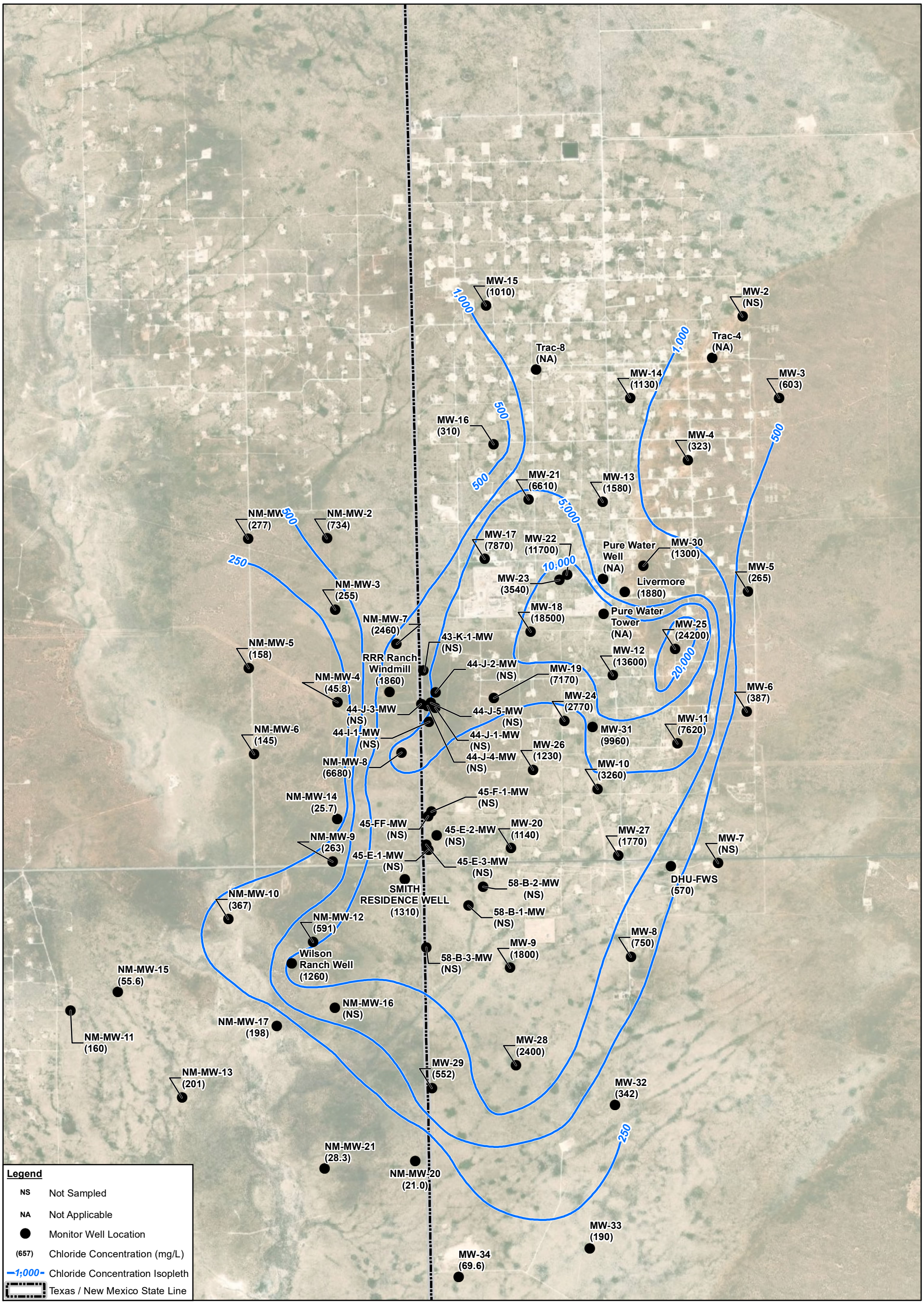
JANUARY 2020 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Jul 17, 2020

FIGURE 5

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR005.mxd

Released to Imaging: 11/21/2023 10:32:34 AM



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

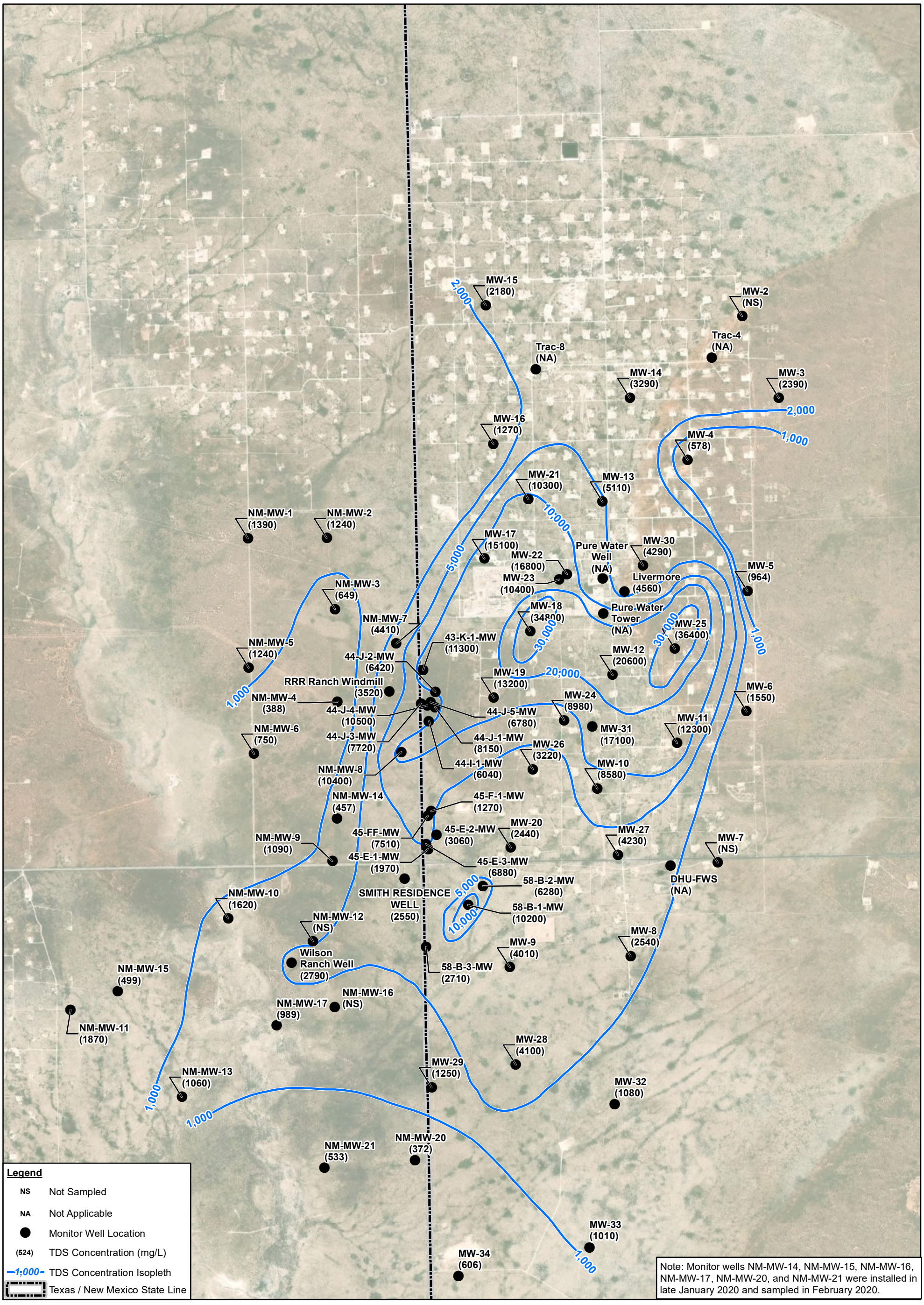
APRIL 2020 GROUNDWATER CHLORIDE CONCENTRATIONS & ISOPLETHS

055270
Jul 17, 2020

FIGURE 6

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR006.mxd

Released to Imaging: 11/21/2023 10:32:34 AM



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

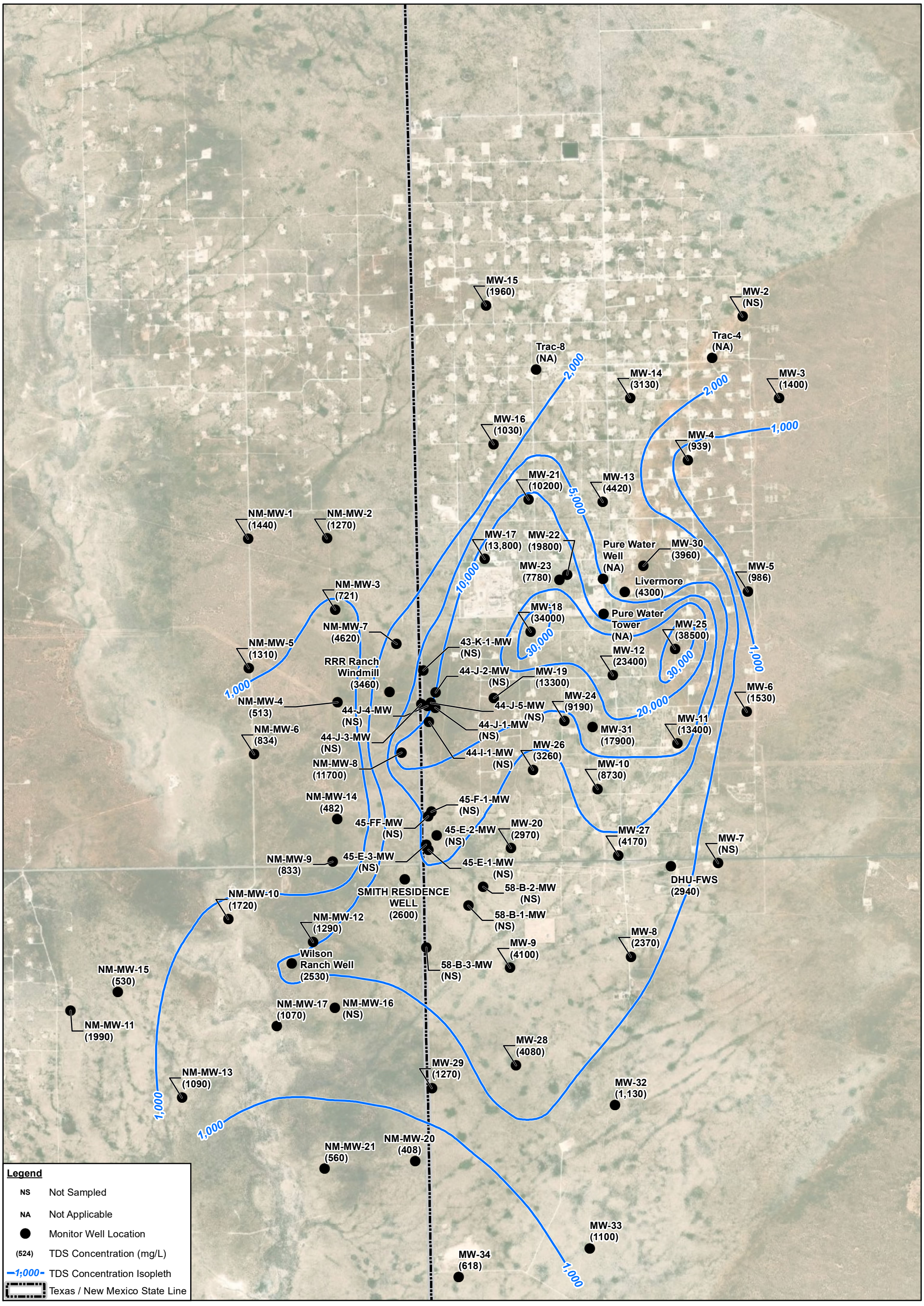
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

055270
Jul 17, 2020

JANUARY 2020 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

FIGURE 7

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR007.mxd



Source: ESRI World Imagery Basemap Service.

0 1,500 3,000
Feet

Coordinate System:
NAD 1983 UTM Zone 13N

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
ANDREWS COUNTY, TEXAS
DOLLARHIDE OIL FIELD UNIT

APRIL 2020 GROUNDWATER TOTAL DISSOLVED SOLIDS (TDS) CONCENTRATIONS & ISOPLETHS

055270
Jul 16, 2020

FIGURE 8

GIS File: N:\US\Baton Rouge\Legacy\BAT\Shared\GIS\GIS\Projects\55000s\55270\Layouts\RPT018\055270-00(RPT018)GIS-BR008.mxd

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Recovery Wells	10-V-WW
	10-W-WW
	10-X-WW
	11-U-WW
	12-S-WW
	12-T-WW
	29-Q-WW
	29-R-WW
	30-O-WW
	31-N-WW
	43-K-WW
	43-L-WW
	43-M-WW
	44-H-WW
	44-I-WW
	44-II-WW
	44-J-WW
	45-EE-WW
	45-ER-WW
	45-F-WW
	45-G-WW
	58-A-WW
	58-B-WW
	58-BB-WW
	58-C-WW
	58-D-WW
Monitor Wells	43-K-1-MW
	44-I-1-MW
	44-J-1-MW
	44-J-2-MW
	44-J-3-MW
	44-J-4-MW
	44-J-5-MW
	45-E-1-MW
	45-E-2-MW
	45-E-3-MW
	45-F-1-MW
	45-FF-MW
	58-B-1-MW
	58-B-2-MW
	58-B-3-MW
	MW-2(1)
	MW-3(1)
	MW-4(1)
	MW-5(1)
	MW-6(1)
	MW-7(1)
	MW-8(1)
	MW-9(1)
	MW-10(1)
	MW-11(1)
	MW-12(1)
	MW-13(1)

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Groundwater Well Designations
Chevron Dollarhide Unit
Dollarhide, Texas

Well Group Designation	Well Identification
Monitor Wells	MW-14(1)
	MW-15(1)
	MW-16(1)
	MW-17(1)
	MW-18(1)
	MW-19(1)
	MW-20(1)
	MW-21(1)
	MW-22(1)
	MW-23(1)
	MW-24(1)
	MW-25(1)
	MW-26(1)
	MW-27(1)
	MW-28(1)
	MW-29(1)
	MW-30(1)
	MW-31(1)
	MW-32(1)
	MW-33(1)
	MW-34(1)
	NM-MW-1(1)
	NM-MW-2(1)
	NM-MW-3(1)
	NM-MW-4(1)
	NM-MW-5(1)
	NM-MW-6(1)
	NM-MW-7(1)
	NM-MW-8(1)
	NM-MW-9(1)
	NM-MW-10(1)
	NM-MW-11(1)
	NM-MW-12(1)
	NM-MW-13(1)
	NM-MW-14(1)
	NM-MW-15(1)
	NM-MW-16(1)
	NM-MW-17(1)
	NM-MW-20(1)
	NM-MW-21(1)
Non-Remedial Wells	Livermore
	Pure Water Tower
	Pure Water Well
	RRR Ranch Windmill
	TRAC-4
	TRAC-8
	Smith Residence
	Wilson Ranch Well

Note:

(1) Indicates monitor wells installed in 2015, 2016, 2017, 2019, and 2020 that are voluntarily sampled quarterly.

Released to Imaging: 11/21/2023 10:32:34 AM

January 2020 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
43-K-1-MW	NM	93.99	NA
44-I-1-MW	3,138.93	95.39	3,043.54
44-J-1-MW	3,134.50	95.15	3,039.35
44-J-2-MW	3,135.30	93.85	3,041.45
44-J-3-MW	3,140.19	95.39	3,044.80
44-J-4-MW	3,133.69	94.37	3,039.32
44-J-5-MW	3,134.75	95.48	3,039.27
45-E-1-MW	NM	87.44	NA
45-E-2-MW	NM	84.89	NA
45-E-3-MW	NM	87.87	NA
45-F-1-MW	NM	89.28	NA
45-FF-MW	3,122.70	89.70	3,033.00
58-B-1-MW	3,100.59	85.52	3,015.07
58-B-2-MW	3,111.91	84.52	3,027.39
58-B-3-MW	3,108.46	89.23	3,019.23
MW-2	3,204.56	DRY	NA
MW-3	3,199.51	113.29	3,086.22
MW-4	3,189.69	115.86	3,073.83
MW-5	3,174.43	103.07	3,071.36
MW-6	3,165.25	94.01	3,071.24
MW-7	3,132.14	DRY	NA
MW-8	3,107.34	84.42	3,022.92
MW-9	3,103.82	85.02	3,018.80
MW-10	3,139.71	97.32	3,042.39
MW-11	3,156.65	102.47	3,054.18
MW-12	3,151.33	94.97	3,056.36
MW-13	3,168.41	98.99	3,069.42
MW-14	3,182.69	107.06	3,075.63
MW-15	3,184.55	104.51	3,080.04
MW-16	3,167.93	99.80	3,068.13
MW-17	3,147.44	84.24	3,063.20
MW-18	3,155.01	95.92	3,059.09
MW-19	3,149.90	99.67	3,050.23
MW-20	3,120.09	88.27	3,031.82
MW-21	3,159.65	92.80	3,066.85
MW-22	3,152.50	88.03	3,064.47
MW-23	3,151.66	87.26	3,064.40
MW-24	3,144.88	95.19	3,049.69

January 2020 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
MW-25	3,165.45	103.45	3,062.00
MW-26	3,136.99	93.84	3,043.15
MW-27	3,126.99	91.50	3,035.49
MW-28	3,093.86	83.94	3,009.92
MW-29	3,098.60	100.30	2,998.30
MW-30	3,170.95	103.92	3,067.03
MW-31	3,145.41	94.60	3,050.81
MW-32	3,090.28	81.45	3,008.83
MW-33	3,080.02	77.09	3,002.93
MW-34	3,069.95	71.41	2,998.54
NM-MW-1	3,124.90	71.66	3,053.24
NM-MW-2	3,152.86	96.00	3,056.86
NM-MW-3	3,146.86	91.50	3,055.36
NM-MW-4	3,154.21	110.23	3,043.98
NM-MW-5	3,109.14	99.88	3,009.26
NM-MW-6	3,093.23	87.83	3,005.40
NM-MW-7	3,147.67	95.65	3,052.02
NM-MW-8	3,138.62	97.74	3,040.88
NM-MW-9	3,118.18	94.08	3,024.10
NM-MW-10	3,066.32	79.53	2,986.79
NM-MW-11	3,075.44	82.58	2,992.86
NM-MW-12	3,105.47	97.63	3,007.84
NM-MW-13	3,051.17	84.40	2,966.77
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.72	NA
Livermore	NM	95.62	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Released to Imaging: 11/21/2023 10:32:34 AM

Table 3

February 2020 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
NM-MW-14	3,126.82	95.82	3,031.00
NM-MW-15	3,064.93	86.55	2,978.38
NM-MW-16	3,085.99	DRY	NA
NM-MW-17	3,035.70	58.34	2,977.36
NM-MW-20	3,091.29	93.23	2,998.06
NM-MW-21	3,047.98	76.46	2,971.52

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Table 4

April 2020 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
Monitor Wells			
MW-2	3,204.56	DRY	NA
MW-3	3,199.51	113.24	3,086.27
MW-4	3,189.69	115.76	3,073.93
MW-5	3,174.43	103.03	3,071.40
MW-6	3,165.25	93.99	3,071.26
MW-7	3,132.14	DRY	NA
MW-8	3,107.34	84.35	3,022.99
MW-9	3,103.82	84.91	3,018.91
MW-10	3,139.71	97.17	3,042.54
MW-11	3,156.65	102.45	3,054.20
MW-12	3,151.33	94.85	3,056.48
MW-13	3,168.41	98.89	3,069.52
MW-14	3,182.69	106.99	3,075.70
MW-15	3,184.55	104.42	3,080.13
MW-16	3,167.93	99.70	3,068.23
MW-17	3,147.44	84.15	3,063.29
MW-18	3,155.01	95.83	3,059.18
MW-19	3,149.90	99.56	3,050.34
MW-20	3,120.09	88.15	3,031.94
MW-21	3,159.65	92.65	3,067.00
MW-22	3,152.50	87.91	3,064.59
MW-23	3,151.66	87.12	3,064.54
MW-24	3,144.88	95.06	3,049.82
MW-25	3,165.45	103.41	3,062.04
MW-26	3,136.99	93.71	3,043.28
MW-27	3,126.99	91.42	3,035.57
MW-28	3,093.86	83.89	3,009.97
MW-29	3,098.60	100.31	2,998.29
MW-30	3,170.95	103.67	3,067.28
MW-31	3,145.41	94.44	3,050.97
MW-32	3,090.28	81.35	3,008.93
MW-33	3,080.02	76.98	3,003.04
MW-34	3,069.95	71.45	2,998.50

Released to Imaging: 11/21/2023 10:32:34 AM

Table 4

April 2020 Groundwater Elevation Measurements
Chevron Dollarhide Unit
Andrews County, Texas

Well Identification	TOC Elevation (ft NAVD)	Depth to Water (ft below TOC)	Groundwater Elevation (ft NAVD)
NM-MW-1	3,124.90	71.67	3,053.23
NM-MW-2	3,152.86	95.98	3,056.88
NM-MW-3	3,146.86	91.47	3,055.39
NM-MW-4	3,154.21	110.24	3,043.97
NM-MW-5	3,109.14	99.79	3,009.35
NM-MW-6	3,093.23	87.82	3,005.41
NM-MW-7	3,147.67	95.63	3,052.04
NM-MW-8	3,138.62	97.72	3,040.90
NM-MW-9	3,118.18	93.92	3,024.26
NM-MW-10	3,066.32	79.55	2,986.77
NM-MW-11	3,075.44	82.29	2,993.15
NM-MW-12	3,105.47	96.57	3,008.90
NM-MW-13	3,051.17	84.39	2,966.78
NM-MW-14	3,126.82	95.81	3,031.01
NM-MW-15	3,064.93	86.60	2,978.33
NM-MW-16	3,085.99	DRY	NA
NM-MW-17	3,035.70	58.36	2,977.34
NM-MW-20	3,091.29	93.29	2,998.00
NM-MW-21	3,047.98	76.50	2,971.48
Non-Remedial Wells			
RRR Ranch Windmill	NM	93.69	NA
Livermore	NM	95.42	NA
Pure Water Tower	3,154.43	NM	NA
TRAC-4	NM	NM	NA
TRAC-8	NM	NM	NA
Pure Water Well	3,151.80	NM	NA
Smith Residential Well	NM	NM	NA
Wilson Ranch	NM	NM	NA

Notes:
ft = feet
NM = Not Measured
NA = Not Applicable
TOC = top of casing
NAVD = North American Vertical Datum

Released to Imaging: 11/21/2023 10:32:34 AM

Table 5

First Half 2020 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		February		April	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**
Monitor Wells						
43-K-1-MW	**6,570**	**11,300**	NS	NS	NS	NS
44-I-1-MW	**3,540**	**6,040**	NS	NS	NS	NS
44-J-1-MW	**5,020**	**8,150**	NS	NS	NS	NS
44-J-2-MW	**3,830**	**6,420**	NS	NS	NS	NS
44-J-3-MW	**4,720**	**7,720**	NS	NS	NS	NS
44-J-4-MW	**6,120**	**10,500**	NS	NS	NS	NS
44-J-5-MW	**4,210**	**6,780**	NS	NS	NS	NS
45-E-1-MW	**1,050**	**1,970**	NS	NS	NS	NS
45-E-2-MW	**1,660**	**3,060**	NS	NS	NS	NS
45-E-3-MW	**4,260**	**6,880**	NS	NS	NS	NS
45-F-1-MW	**712**	**1,270**	NS	NS	NS	NS
45-FF-MW	**4,320**	**7,510**	NS	NS	NS	NS
58-B-1-MW	**6,590**	**10,200**	NS	NS	NS	NS
58-B-2-MW	**3,770**	**6,280**	NS	NS	NS	NS
58-B-3-MW	**1,570**	**2,710**	NS	NS	NS	NS
MW-2	NS	NS	NS	NS	NS	NS
MW-3	**696**	**2,390**	NS	NS	**603**	**1,400**
MW-4	**375**	578	NS	NS	**323**	939
MW-5	262	964	NS	NS	265	986
MW-6	**488**	**1,550**	NS	NS	**387**	**1,530**
MW-7	NS	NS	NS	NS	NS	NS
MW-8	**967**	**2,540**	NS	NS	**750**	**2,370**
MW-9	**2,740**	**4,010**	NS	NS	**1,800**	**4,100**
MW-10	**5,230**	**8,580**	NS	NS	**3,260**	**8,730**
MW-11	**7,760**	**12,300**	NS	NS	**7,620**	**13,400**
MW-12	**12,700**	**20,600**	NS	NS	**13,600**	**23,400**
MW-13	**1,810**	**5,110**	NS	NS	**1,580**	**4,420**
MW-14	**1,880**	**3,290**	NS	NS	**1,130**	**3,130**
MW-15	**1,290**	**2,180**	NS	NS	**1,010**	**1,960**
MW-16	**525**	**1,270**	NS	NS	**310**	**1,030**
MW-17	**9,410**	**15,100**	NS	NS	**7,870**	**13,800**
MW-18	**21,400**	**34,800**	NS	NS	**18,500**	**34,000**
MW-19	**7,540**	**13,200**	NS	NS	**7,170**	**13,300**
MW-20	**1,330**	**2,440**	NS	NS	**1,140**	**2,970**
MW-21	**6,900**	**10,300**	NS	NS	**6,610**	**10,200**
MW-22	**11,700**	**16,800**	NS	NS	**11,700**	**19,800**
MW-23	**7,140**	**10,400**	NS	NS	**3,540**	**7,780**
MW-24	**4,470**	**8,980**	NS	NS	**2,770**	**9,190**
MW-25	**25,200**	**36,400**	NS	NS	**24,200**	**38,500**
MW-26	**1,460**	**3,220**	NS	NS	**1,230**	**3,260**
MW-27	**2,420**	**4,230**	NS	NS	**1,770**	**4,170**
MW-28	**2,450**	**4,100**	NS	NS	**2,400**	**4,080**
MW-29	**535**	**1,250**	NS	NS	**552**	**1,270**

Released to Imaging: 11/21/2023 10:32:34 AM

Table 5

First Half 2020 Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Andrews County, Texas

Sample ID	January		February		April	
	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)	**300**	**1,000**	**300**	**1,000**	**300**	**1,000**
MW-30	**2,520**	**4,290**	NS	NS	**1,300**	**3,960**
MW-31	**11,700**	**17,100**	NS	NS	**9,960**	**17,900**
MW-32	**327**	**1,080**	NS	NS	**342**	**1,130**
MW-33	185	**1,010**	NS	NS	190	**1,100**
MW-34	73.3	606	NS	NS	69.6	618
NM-MW-1	286	**1,390**	NS	NS	277	**1,440**
NM-MW-2	**643**	**1,240**	NS	NS	**734**	**1,270**
NM-MW-3	241	649	NS	NS	255	721
NM-MW-4	44.1	388	NS	NS	45.8	513
NM-MW-5	152	**1,240**	NS	NS	158	**1,310**
NM-MW-6	145	750	NS	NS	145	834
NM-MW-7	**2,450**	**4,410**	NS	NS	**2,460**	**4,620**
NM-MW-8	**6,220**	**10,400**	NS	NS	**6,680**	**11,700**
NM-MW-9	**555**	**1,090**	NS	NS	263	833
NM-MW-10	**357**	**1,620**	NS	NS	**367**	**1,720**
NM-MW-11	161	**1,870**	NS	NS	160	**1,990**
NM-MW-12	NS	NS	NS	NS	**591**	**1,290**
NM-MW-13	203	**1,060**	NS	NS	201	**1,090**
NM-MW-14[(a)]	NS	NS	24.4	457	25.7	482
NM-MW-15[(a)]	NS	NS	55.9	499	55.6	530
NM-MW-16[(a)]	NS	NS	NS	NS	NS	NS
NM-MW-17[(a)]	NS	NS	160	989	198	**1,070**
NM-MW-20[(a)]	NS	NS	21.8	372	21.0	408
NM-MW-21[(a)]	NS	NS	31.5	533	28.3	560
Non-Remedial Wells						
Livermore	**2,700**	**4,560**	NA	NA	**1,880**	**4,300**
Pure Water Tower	NA	NA	NA	NA	NA	NA
Pure Water Well	NA	NA	NA	NA	NA	NA
RRR Ranch Windmill	**1,850**	**3,520**	NA	NA	**1,860**	**3,460**
Smith Residential Well	**1,360**	**2,550**	NA	NA	**1,310**	**2,600**
TRAC-4	NA	NA	NA	NA	NA	NA
TRAC-8	NA	NA	NA	NA	NA	NA
Wilson Ranch	**1,330**	**2,790**	NA	NA	**1,260**	**2,530**
DHU-FWS	NA	NA	NA	NA	**570**	**2,940**

Notes:

1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font indicates that a detected result was above the TCEQ Secondary Drinking Water Standard.

(a) These monitor wells were installed in January 2020 and then sampled in February 2020.
NA = Not Applicable
NS = Not Sampled

Released to Imaging: 11/21/2023 10:32:34 AM

Appendices

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix A
Soil Boring Logs

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-14

DATE COMPLETED: January 28, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
0	Reddish brown fine SAND (SP)						
	White calcareous cemented fine SAND (CALICHE)	1.00					
20	Very light reddish brown fine SAND (SP) with caliche	21.00	Bentonite/ Cement Grout				
35	-- no recovery from 35 to 49 ft	35.00					
49	-- with brown mottling at 49 ft	49.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

WATER FOUND ▽ 01/28/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-14
DATE COMPLETED: January 28, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52	Very light reddish brown fine SAND (SP) with caliche and brown mottling	50.00	Bentonite/ Cement Grout				
54							
56							
58	Dark reddish brown fine SAND (SP) with caliche	57.00					
60							
62							
64							
66							
68							
70							
72							
74	-- damp	73.00					
76							
78							
80			Bentonite Seal				
82							
84	Dark reddish brown fine SAND (SW) with lithic gravel	83.50					
86							
88	Reddish brown sandy GRAVEL (GP)	87.00	Sand Pack				
	-- 1 foot clayey zone	89.00	Well Screen				
90							
92	Dark reddish brown fine SAND (SW) with lithic gravel	91.00	▽				
	Maroon and gray weathered SHALE	92.50					
94							
96							
98							
	END OF BOREHOLE @ 99.0ft BGS	99.00	WELL DETAILS Screened interval: 85.00 to 95.00ft BGS Length: 10ft Diameter: 4in				

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/28/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-14

DATE COMPLETED: January 28, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value	
102			Material: PVC Sand Pack: 82.00 to 95.00ft BGS					
104								
106								
108								
110								
112								
114								
116								
118								
120								
122								
124								
126								
128								
130								
132								
134								
136								
138								
140								
142								
144								
146								
148								

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

WATER FOUND ▽ 01/28/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-15

DATE COMPLETED: January 25, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
0	Reddish brown fine SAND (SP)						
3	White calcareous cemented fine SAND (CALICHE)	3.00					
11	-- sandy	11.00					
16	-- sand increases with depth	16.00					
21	Very light reddish brown fine SAND (SP) with caliche	21.00					
29	-- caliche zone	29.00	Bentonite/ Cement Grout				
39	-- caliche zone	39.00					
45	-- caliche zone	45.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

WATER FOUND ▽ 01/25/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-15
DATE COMPLETED: January 25, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52	Very light reddish brown fine SAND (SP) with caliche	50.00					
54	Red SANDSTONE with caliche	53.00	Bentonite/ Cement Grout				
56							
58							
60	Dark reddish brown fine SAND (SP) with caliche	60.00					
62							
64							
66	-- slightly moist	65.00					
68	Dark reddish brown fine SAND (SW) with lithic gravel	68.00					
70							
72	-- yellowish/olive brown	71.00	Bentonite Seal				
74	-- reddish brown	74.00					
76							
78	-- damp	77.00					
80							
82							
84							
86							
88	-- clayey from 87 to 91	87.00	Sand Pack				
90			Well Screen				
92							
94							
96	Maroon and gray weathered SHALE	95.00					
98							

WELL DETAILS
Screened interval:
75.00 to 95.00ft BGS
Length: 20ft
Diameter: 4in

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/25/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-15

DATE COMPLETED: January 25, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
102	Maroon and gray weathered SHALE	100.00	Material: PVC Sand Pack: 72.00 to 95.00ft BGS				
104	END OF BOREHOLE @ 104.0ft BGS	104.00					
106							
108							
110							
112							
114							
116							
118							
120							
122							
124							
126							
128							
130							
132							
134							
136							
138							
140							
142							
144							
146							
148							

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

WATER FOUND ▽ 01/25/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-16
DATE COMPLETED: January 23, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
0	Reddish brown fine SAND (SP) with organics and gravel						
2	White calcareous cemented fine SAND (CALICHE)	2.00					
10	Very light reddish brown fine SAND (SP) with caliche	10.00					
14	-- caliche fragments decrease with depth	14.00	Bentonite/ Cement Grout				
34	Dark reddish brown fine SAND (SP) with caliche	34.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-16
DATE COMPLETED: January 23, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52	Dark reddish brown fine SAND (SP) with caliche	50.00	Bentonite/ Cement Grout				
54							
56							
58							
60							
62							
64							
66							
68							
70							
72							
74			Bentonite Seal				
76							
78							
80	Dark reddish brown fine SAND (SW) with lithic gravel	79.50	Sand Pack				
82							
84							
86	Reddish brown sandy GRAVEL (GP)	85.00	Well Screen				
88							
90	Maroon and gray weathered SHALE	89.00					
92							
94							
96							
98	END OF BOREHOLE @ 97.0ft BGS	97.00					

WELL DETAILS
Screened interval:
80.00 to 90.00ft BGS
Length: 10ft
Diameter: 4in
Material: PVC
Sand Pack:
77.00 to 90.00ft BGS

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-17
DATE COMPLETED: January 21, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
	Reddish brown fine SAND (SP)						
	White calcareous cemented fine SAND (CALICHE)	3.00					
	Very light reddish brown fine SAND (SP) with caliche	9.50					
	-- slightly moist from 11 to 13	11.00					
	-- caliche zone	18.00	Bentonite/ Cement Grout				
	-- caliche zone	38.00					
	Dark reddish brown fine SAND (SP) with caliche	46.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/21/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-17
DATE COMPLETED: January 21, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
50	Dark reddish brown fine SAND (SP) with caliche	50.00	Bentonite/ Cement Grout; Bentonite Seal; Sand Pack; Well Screen				
72	-- with lithic gravel	72.00					
80	Dark reddish brown fine SAND (SW) with lithic gravel	80.00					
83	Maroon and gray weathered SHALE	83.00					
91	END OF BOREHOLE @ 91.0ft BGS	91.00					

WELL DETAILS
Screened interval:
63.00 to 83.00ft BGS
Length: 20ft
Diameter: 4in
Material: PVC
Sand Pack:
60.00 to 83.00ft BGS

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/21/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-20

DATE COMPLETED: January 30, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
0	Reddish brown fine SAND (SP)						
	White calcareous cemented fine SAND (CALICHE)	1.00					
12		13.00					
14	Very light reddish brown fine SAND (SP) with caliche						
30			Bentonite/ Cement Grout				
42	-- semiconsolidated fragments	43.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.

WATER FOUND ▽ 1/30/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 7/1/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-20
DATE COMPLETED: January 30, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52	Very light reddish brown fine SAND (SP) with caliche	50.00					
54							
56	Red SANDSTONE	55.00					
58	Dark reddish brown fine SAND (SP) with caliche	57.00					
60							
62							
64	-- slightly moist	63.00					
66							
68							
70	Dark reddish brown fine SAND (SW) with lithic gravel	70.00	Bentonite/ Cement Grout				
72							
74							
76							
78							
80			Bentonite Seal				
82							
84							
86			Sand Pack				
88	Reddish brown sandy GRAVEL (GP)	88.00					
90			Well Screen				
92	-- clayey	91.00					
	Dark reddish brown fine SAND (SW) with lithic gravel	92.00	▽				
94							
96	Maroon and gray weathered SHALE	95.00					
	END OF BOREHOLE @ 96.0ft BGS	96.00					
98							

WELL DETAILS
Screened interval:
86.00 to 96.00ft BGS
Length: 10ft

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 1/30/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 7/1/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field

PROJECT NUMBER: 055270

CLIENT: Chevron Environmental Management Company

LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-20

DATE COMPLETED: January 30, 2020

DRILLING METHOD: Roto-Sonic

FIELD PERSONNEL: S. Saller

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value	
102			Diameter: 4in Material: PVC Sand Pack: 83.00 to 96.00ft BGS					
104								
106								
108								
110								
112								
114								
116								
118								
120								
122								
124								
126								
128								
130								
132								
134								
136								
138								
140								
142								
144								
146								
148								

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 1/30/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 7/1/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-21
DATE COMPLETED: January 31, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: J. Brewster, B. Carter

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
	Reddish brown fine SAND (SP)						
	White calcareous cemented fine SAND (CALICHE)	3.00					
	Very light reddish brown fine SAND (SP) with caliche	13.00					
	-- caliche zone	25.00	Bentonite/ Cement Grout				
	-- caliche zone	32.00					
	Dark reddish brown fine SAND (SP) with caliche	36.00					

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/31/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-MW-21
DATE COMPLETED: January 31, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: J. Brewster, B. Carter

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	Monitor Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52							
54	-- with some gravel	54.00	Bentonite/ Cement Grout				
56							
58							
60			Bentonite Seal				
62	Dark reddish brown fine SAND (SW) with lithic gravel	61.00					
64	-- layer of black cemented gravel	64.00	Sand Pack				
66							
68							
70			Well Screen				
72							
74							
76	Maroon and gray weathered SHALE	75.00					
78							
80							
82	END OF BOREHOLE @ 82.0ft BGS	82.00					
84							
86							
88							
90							
92							
94							
96							
98							

WELL DETAILS
Screened interval:
66.00 to 76.00ft BGS
Length: 10ft
Diameter: 4in
Material: PVC
Sand Pack:
63.00 to 76.00ft BGS

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/31/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-SB-18
DATE COMPLETED: January 24, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller, B. Carter

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
	Reddish brown fine SAND (SP) with gravel					
4	White calcareous cemented fine SAND (CALICHE)	4.00				
12	Very light reddish brown fine SAND (SP) with caliche	11.50				
18	-- color shift to white, large semi-caliche brittle fragments	17.00				
26	-- color shift to light brown, less white caliche gravel	25.00				
30	-- caliche zone	29.00				

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/24/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-SB-18
DATE COMPLETED: January 24, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller, B. Carter

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
52	Very light reddish brown fine SAND (SP) with caliche	50.00				
54						
56						
58						
60	Dark reddish brown fine SAND (SP) with caliche	60.00				
62						
64						
66	-- slightly moist	65.00				
68	-- caliche zone	67.00				
70						
72						
74						
76						
78						
80						
82						
84						
86						
88						
90	-- partially cemented sands	89.00				
92						
94						
96						
98	-- highly cemented sandstone nodules	97.00				

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/24/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

STRATIGRAPHIC LOG

PROJECT NAME: Dollarhide Field
PROJECT NUMBER: 055270
CLIENT: Chevron Environmental Management Company
LOCATION: Jal, New Mexico

HOLE DESIGNATION: NM-SB-18
DATE COMPLETED: January 24, 2020
DRILLING METHOD: Roto-Sonic
FIELD PERSONNEL: S. Saller, B. Carter

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
102	Dark reddish brown fine SAND (SP) with caliche	100.00				
104						
106	Red SANDSTONE	105.50				
108						
110						
112	Maroon and gray weathered SHALE	111.00				
114	END OF BOREHOLE @ 114.0ft BGS	114.00				
116						
118						
120						
122						
124						
126						
128						
130						
132						
134						
136						
138						
140						
142						
144						
146						
148						

NOTES: THIS BORING LOG NOT TO BE USED SEPARATELY FROM THIS REPORT.
WATER FOUND ▽ 01/24/20

OVERBURDEN LOG 055270-2020 (NM-MW-14 TO NM-MW-17, NM-SB-18, NM-MW-20 AND NM-MW-21) 03.09.20.GPJ CRA_CORP.GDT 6/23/20

Appendix B
Well Reports

Released to Imaging: 11/21/2023 10:32:34 AM

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 15	NM-MW-14	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	7	38.05	N
	LONGITUDE	-103	4	24.86	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SW 1/4 of NW 1/4 of SW 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/27/2020	01/28/2020	95	99	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 90

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	99	8.3					
0	85		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
85	95		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	74	8.3	Cement Bentonite Grout	19	Tremie Pump
74	82	8.3	Bentonite Chips	2.5	Poured
82	99	8.3	12-20 Sand	5	Poured

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	21	21	Caliche	Y ✓ N	
21	49	28	Very light reddish brown fine sand, with Caliche	Y ✓ N	
49	57	8	Very light reddish brown find sand with caliche and brown mottling	Y ✓ N	
57	83.5	26.5	Dark reddish brown fine sand with caliche	Y ✓ N	
83.5	87	3.5	Dark reddish brown fine sand with lithic gravel	✓ Y N	
87	91	4	Reddish brown sandy Gravel	✓ Y N	
91	92.5	1.5	Dark reddish brown fine sand with lithic gravel	✓ Y N	
92.5	99	6.5	Maroon and gray weathered shale	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — 7/15/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 16	NM-MW-15	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	6	42.12	N
	LONGITUDE	-103	5	51.36	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW 1/4 of SW 1/4 of SE 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/24/2020	01/25/2020	95	104	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 88

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	104	8.3					
0	75		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
75	95		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	67	8.3	Cement Bentonite Grout	17.5	Tremie Pump
67	73	8.3	Bentonite Chips	2	Poured
73	104	8.3	12-20 Sand	9	Poured

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	3	3	Reddish brown fine sand	Y ✓N	
3	21	18	Caliche	Y ✓N	
21	53	32	Very light reddish brown fine sand, with Caliche	Y ✓N	
53	60	7	Red sandstone	Y ✓N	
60	68	8	Dark reddish brown fine sand with caliche	✓Y ✓N	
68	95	27	Dark reddish brown fine sand with lithic gravel	✓Y N	
95	104	9	Maroon and gray weathered shale	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — 7/15/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 17	NM-MW-16	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	6	35.64	N
	LONGITUDE	-103	4	27.12	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE 1/4 of SE 1/4 of SE 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/22/2020	01/23/2020	90	97	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 91

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	97	8.3					
0	80		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
80	90		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	71	8.3	Cement Bentonite Grout	18.5	Tremie Pump
71	78	8.3	Bentonite Chips	2	Poured
78	97	8.3	12-20 Sand	6	Poured

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	2	2	Reddish brown fine sand	Y ✓N	
2	10	8	Caliche	Y ✓N	
10	34	24	Very light reddish brown fine sand, with Caliche	Y ✓N	
34	79.5	45.5	Dark reddish brown fine sand with caliche	Y ✓N	
79.5	85	5.5	Dark reddish brown fine sand with lithic gravel	✓Y ✓N	
85	89	4	Reddish brown sandy gravel	✓Y N	
89	97	8	Maroon and gray weathered shale	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — 7/15/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 18	NM-MW-17	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	6	29.88	N
	LONGITUDE	-103	4	49.8	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW 1/4 of NW 1/4 of NE 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/21/2020	01/22/2020	83	91	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 86

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	91	8.3					
0	63		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
63	83		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	53	8.3	Cement Bentonite Grout	14.5	Tremie Pump
53	60	8.3	Bentonite Chips	2	Poured
60	84	8.3	12-20 Sand	6.5	Poured
84	91	8.3	Bentonite Chips	3	Poured

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	3	3	Reddish brown fine sand	Y ✓N	
2	9.5	7.5	Caliche	Y ✓N	
9.5	46	36.5	Very light reddish brown fine sand, with Caliche	Y ✓N	
46	80	34	Dark reddish brown fine sand with caliche	Y ✓N	
80	83	3	Dark reddish brown fine sand with lithic gravel	✓Y N	
83	91	8	Maroon and gray weathered shale	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — 7/15/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 20	NM-MW-20	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	5	44.52	N
	LONGITUDE	-103	3	56.88	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE 1/4 of SE 1/4 of SW 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/30/2020	01/31/2020	96	96	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 89

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	96	8.3					
0	86		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
86	96		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	75	8.3	Cement Bentonite Grout	19.5	Tremie Pump
75	83	8.3	Bentonite Chips	2	Poured
83	96	8.3	12-20 Sand	3.5	Poured

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Reddish brown fine sand	Y ✓N	
1	13	12	Caliche	Y ✓N	
13	55	37	Very light reddish brown fine sand with caliche	Y ✓N	
55	57	2	Red Sandstone	Y ✓N	
57	70	13	Dark reddish brown fine sand with caliche	✓Y N	
70	88	18	Dark reddish brown fine sand with lithic gravel	✓Y N	
88	92	4	Reddish brown sandy gravel	✓Y N	
92	95	3	Dark reddish brown fine sand with lithic gravel	✓Y N	
95	96	1	Maroon and gray weathered shale	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — 7/15/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-1561-POD 21	NM-MW-21	CP-1561

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
1500 Louisiana Street, Room 38108	Houston	TX	77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	5	42.42	N
	LONGITUDE	-103	4	32.16	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE 1/4 of SE 1/4 of SE 1/4 T25S R38E S16

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1664	Shawn Cain	Cascade Drilling L.P.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
01/31/2020	02/01/2020	76	82	

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 75

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Sonic

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	82	8.3					
0	66		4" PVC Blank	Flush Thread SCH 40	4.026	.237	
66	76		4" PVC Screen	Flush Thread SCH 40	4.026	.237	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	8.3	Concrete	.5	Poured
2	55	8.3	Cement Bentonite Grout	14.5	Tremie Pump
55	63	8.3	Bentonite Chips	2	Poured
63	82	8.3	12-20 Sand	6	Poured

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	3	3	Reddish brown fine sand	Y ✓N	
3	13	10	Caliche	Y ✓N	
13	36	23	Very light reddish brown fine sand with caliche	Y ✓N	
36	61	25	Dark reddish brown fine sand with caliche	✓Y N	
61	75	14	Dark reddish brown fine sand with lithic gravel	✓Y N	
75	82	7	Maroon and gray weathered shale	Y ✓N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☑ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Jesse Van Kirk

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Shawn Cain — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

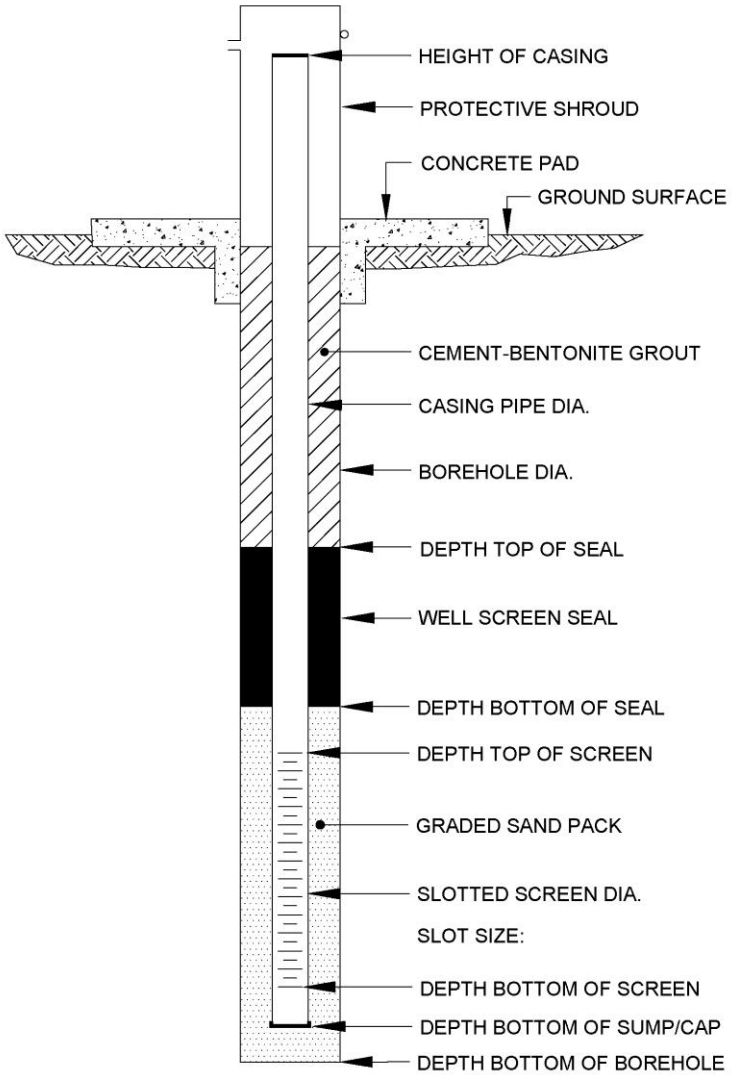
7/15/2020 — DATE

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

Appendix C
Monitor Well Construction Diagrams

Released to Imaging: 11/21/2023 10:32:34 AM



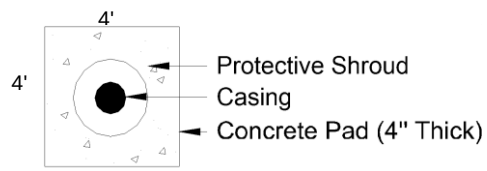
	3.0
	0
4"	
8"	
	77
	82
	85
4"	
0.02"	
	95
	99

ELEV. TOP OF CASING	3126.82 ft NAVD '88
ELEV. GROUND SURFACE	3123.82 ft NAVD '88
SCREENED INTERVAL	85.00 to 95.00 ft bgs
DATE INSTALLED	1/28/2020

Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks: ft bgs: feet below ground surface
NAVD: North American Vertical Datum



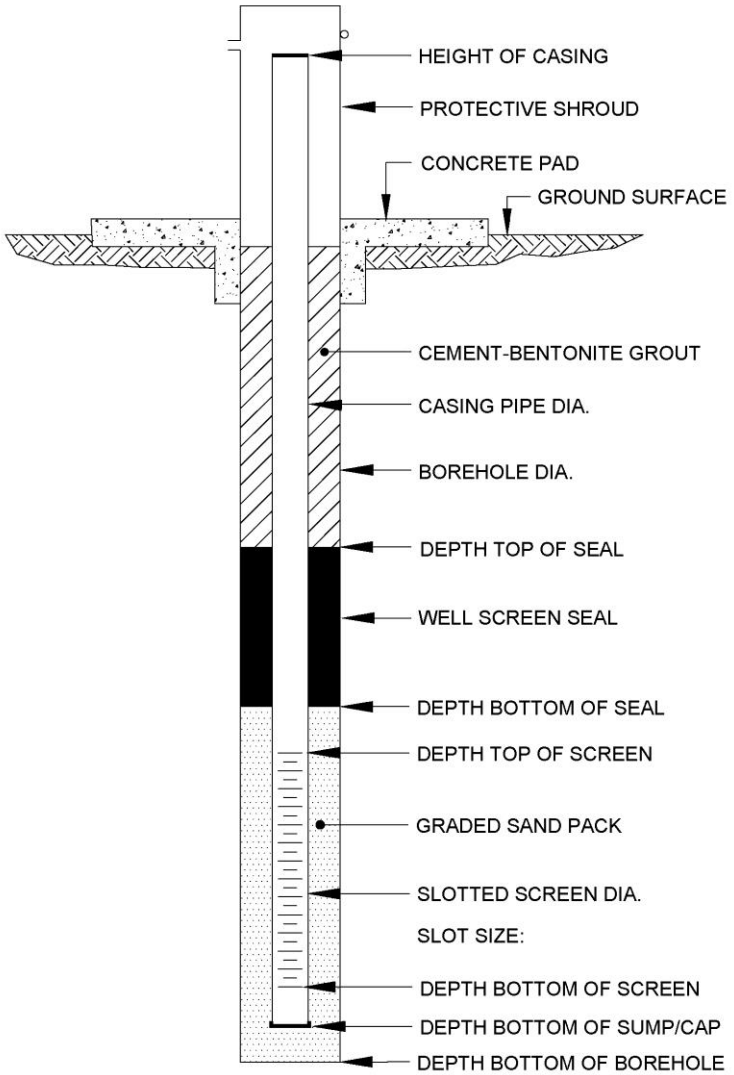
PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-14**	**C** Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				



	2.8
	0
4"	
8"	
	67
	72
	75
4"	
0.02"	
	95
	104

ELEV. TOP OF CASING	3064.93 ft NAVD '88
ELEV. GROUND SURFACE	3062.16 ft NAVD '88
SCREENED INTERVAL	75.00 to 95.00 ft bgs
DATE INSTALLED	1/25/2020

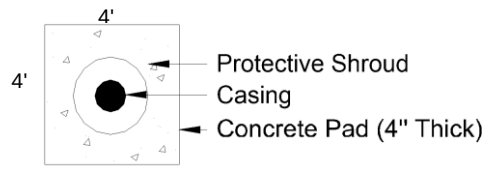
Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:

ft bgs: feet below ground surface

NAVD: North American Vertical Datum



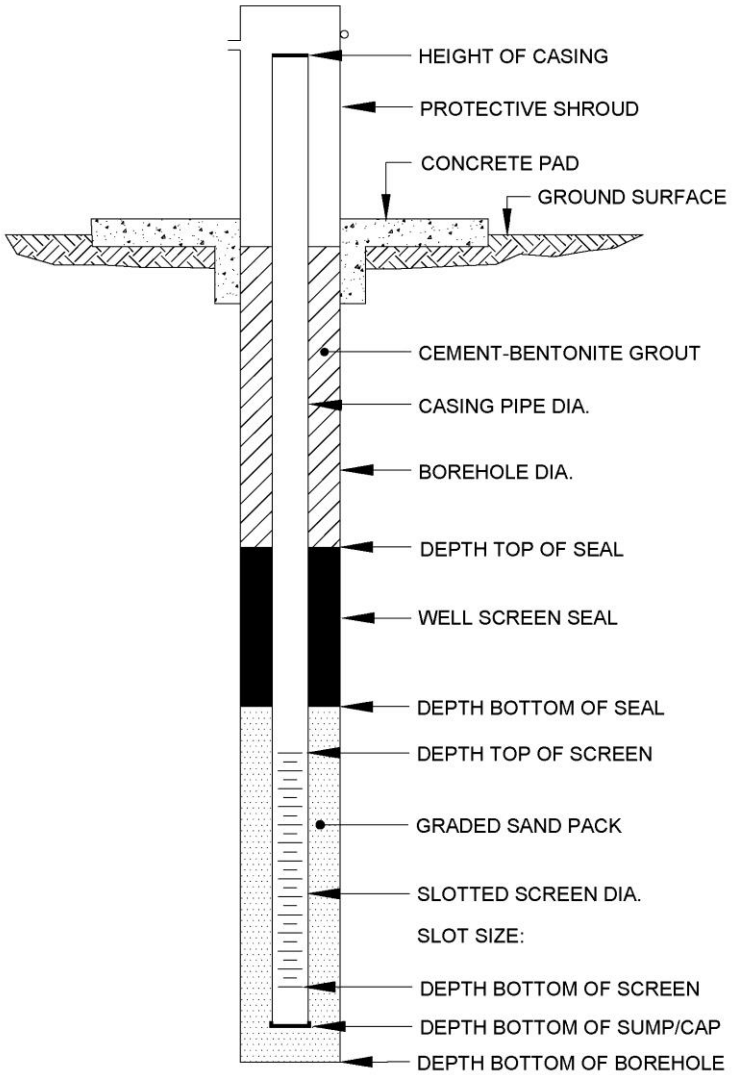
PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-15**	**C** Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				



	2.9
	0
4"	
8"	
	72
	77
	80
4"	
0.02"	
	90
	97

ELEV. TOP OF CASING	3085.99 ft NAVD '88
ELEV. GROUND SURFACE	3083.04 ft NAVD '88
SCREENED INTERVAL	80.00 to 90.00 ft bgs
DATE INSTALLED	1/23/2020

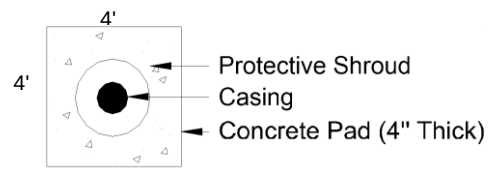
Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:

ft bgs: feet below ground surface

NAVD: North American Vertical Datum



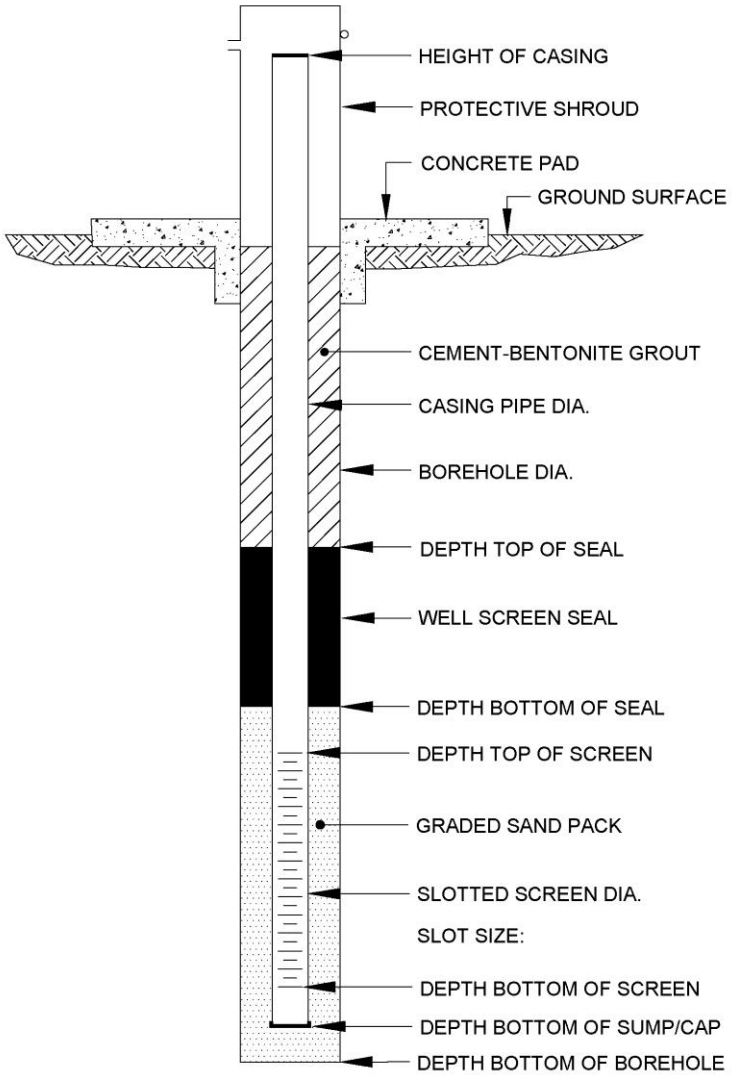
PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-16**	**C** Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				



	2.9
	0
4"	
8"	
	55
	60
	63
4"	
0.02"	
	83
	91

SECTION VIEW

ELEV. TOP OF CASING	3035.70 ft NAVD '88
ELEV. GROUND SURFACE	3032.81 ft NAVD '88
SCREENED INTERVAL	63.00 to 83.00 ft bgs
DATE INSTALLED	1/21/2020

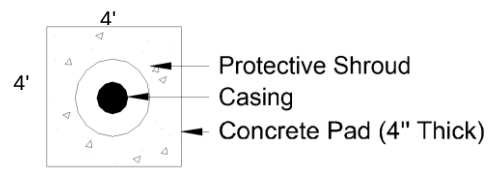
Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:

ft bgs: feet below ground surface

NAVD: North American Vertical Datum

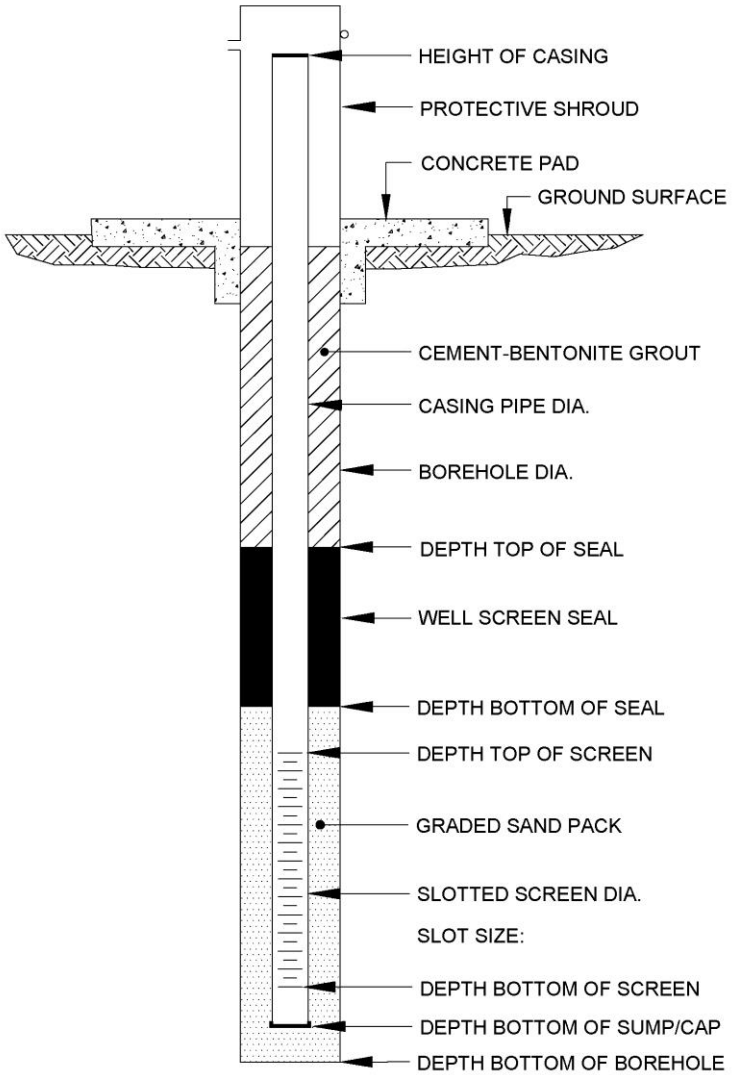


PLAN VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-17**	C Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				



	2.5
	0
4"	
8"	
	78
	83
	86
4"	
0.02"	
	96
	96

ELEV. TOP OF CASING	3091.29 ft NAVD '88
ELEV. GROUND SURFACE	3088.77 ft NAVD '88
SCREENED INTERVAL	86.00 to 96.00 ft bgs
DATE INSTALLED	1/30/2020

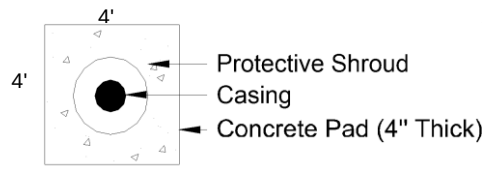
Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:

ft bgs: feet below ground surface

NAVD: North American Vertical Datum



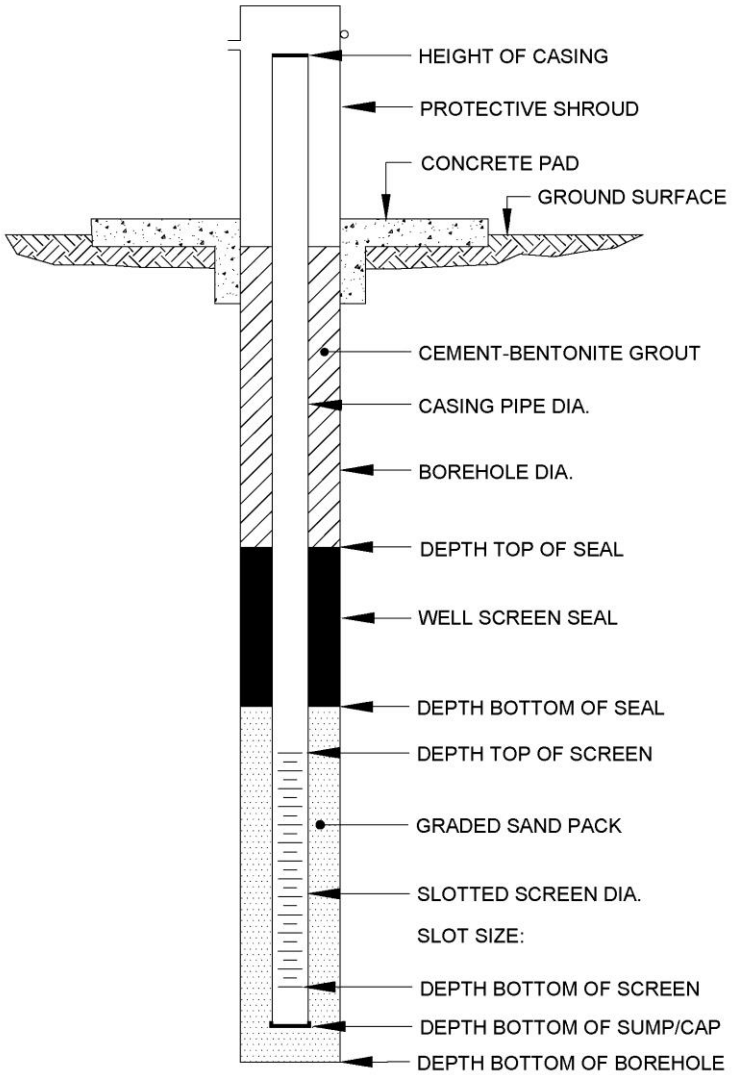
PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-20**	**C** Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				



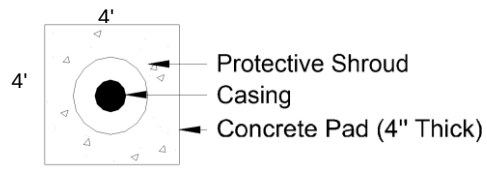
	3.1
	0
4"	
8"	
	58
	63
	66
4"	
0.02"	
	76
	82

ELEV. TOP OF CASING	3047.98 ft NAVD '88
ELEV. GROUND SURFACE	3044.84 ft NAVD '88
SCREENED INTERVAL	66.00 to 76.00 ft bgs
DATE INSTALLED	1/31/2020

Construction Notes:

Well Casing:	Schedule 40 PVC
Shroud:	6" round metal shroud
Filter Pack:	20/40 Grade Silica Sand
Bentonite Seal:	Bentonite Chips
Grout:	Cement-bentonite mixture

Remarks:
- ft bgs: feet below ground surface
- NAVD: North American Vertical Datum



PLAN VIEW

SECTION VIEW

NOTE: All section dimensions are in feet (unless otherwise noted).

GHD SERVICES INC.

6/29/2020 DATE	1 REV. NO.	055270-2019 FILE NO	Chevron Environmental Management Co. Houston, Texas CLIENT	Dollarhide Oil Field Unit Lea County, NM PROJECT LOCATION	**Monitor Well Cross Section NM-MW-21**	**C** Appendix
SB DRAWN BY:	JB REVIEWED BY:	BC APPROVED BY:				

Appendix D
Historical Groundwater Elevations

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
Monitor Wells						
43-K-1-MW						
NM	02/28/07	NM	94.85	NA	NA	NA
	01/22/08	112.95	95.26	NA	NA	NA
	07/07/08	NM	95.33	NA	NA	NA
	08/26/09	114.28	95.69	NA	NA	NA
	01/28/09	112.95	95.32	NA	NA	NA
	08/16/10	NM	95.40	NA	NA	NA
	02/11/11	112.00	95.45	NA	NA	NA
	08/02/11	112.91	94.79	NA	NA	NA
	01/30/13	112.90	95.23	NA	NA	NA
	01/13/14	112.96	92.33	NA	NA	NA
	07/14/14	NM	95.29	NA	NA	NA
	01/12/15	NM	95.21	NA	NA	NA
	07/14/15	NM	95.00	NA	NA	NA
	01/25/16	116.47	94.90	NA	NA	NA
	07/20/16	NM	94.87	NA	NA	NA
	01/11/17	NM	94.82	NA	NA	NA
	07/13/17	NM	95.00	NA	NA	NA
	01/12/18	NM	94.61	NA	NA	NA
	07/02/18	NM	94.47	NA	NA	NA
	01/07/19	NM	94.20	NA	NA	NA
	07/11/19	112.89	94.16	NA	NA	NA
	01/15/20	NM	93.99	NA	NA	NA
44-I-1-MW						
3,133.50	06/13/06	108.25	93.55	NA	NA	3,039.95
	08/15/06	110.00	96.85	NA	NA	3,036.65
	09/13/06	106.38	96.91	NA	NA	3,036.59
	09/20/06	110.00	96.72	NA	NA	3,036.78
	10/04/06	110.00	96.94	NA	NA	3,036.56
	12/08/06	111.05	97.09	NA	NA	3,036.41
	02/13/07	108.25	96.85	NA	NA	3,036.65
	02/28/07	NM	96.85	NA	NA	3,036.65
	07/30/07	108.25	96.88	NA	NA	3,036.62
	01/22/08	108.25	97.05	NA	NA	3,036.45
	07/09/08	108.25	97.13	NA	NA	3,036.37
	01/28/09	108.25	97.46	NA	NA	3,036.04
	08/27/09	106.20	97.57	NA	NA	3,035.93
	02/19/10	NM	97.31	NA	NA	3,036.19
	08/16/10	NM	97.30	NA	NA	3,036.20
	02/11/11	NM	96.68	NA	NA	3,036.82
	08/02/11	106.70	96.17	NA	NA	3,037.33
	08/15/12	106.65	96.21	NA	NA	3,037.29
	01/30/13	106.26	95.97	NA	NA	3,037.53
	07/30/13	106.65	96.18	NA	NA	3,037.32
	01/13/14	106.65	96.21	NA	NA	3,037.29
	07/14/14	111.17	95.85	NA	NA	3,037.65
	01/12/15	NM	96.27	NA	NA	3,037.23
	07/14/15	NM	95.91	NA	NA	3,037.59
3,138.93	01/25/16	106.94	95.96	NA	NA	3,042.97
	07/20/16	NM	96.10	NA	NA	3,042.83
	01/12/17	NM	95.84	NA	NA	3,043.09
	07/13/17	NM	96.03	NA	NA	3,042.90
	01/12/18	NM	95.64	NA	NA	3,043.29
	07/02/18	NM	95.94	NA	NA	3,042.99
	01/09/19	NM	95.82	NA	NA	3,043.11
	07/11/19	106.21	95.53	NA	NA	3,043.40
	01/14/20	NM	95.39	NA	NA	3,043.54
44-J-1-MW						
3,134.50	06/13/06	111.04	96.31	NA	NA	3,038.19
	07/13/06	111.04	96.38	NA	NA	3,038.12
	08/15/06	111.00	96.53	NA	NA	3,037.97
	09/13/06	110.00	96.54	NA	NA	3,037.96
	09/20/06	111.00	96.40	NA	NA	3,038.10
	10/04/06	111.00	96.64	NA	NA	3,037.86
	12/08/06	111.97	97.41	NA	NA	3,037.09
	02/13/07	111.04	96.39	NA	NA	3,038.11
	02/28/07	NM	96.39	NA	NA	3,038.11
	07/30/07	111.04	96.51	NA	NA	3,037.99
	01/22/08	111.04	96.86	NA	NA	3,037.64
	07/09/08	111.04	96.90	NA	NA	3,037.60
	01/28/09	111.04	97.21	NA	NA	3,037.29
	08/28/09	110.40	97.27	NA	NA	3,037.23
	08/16/10	NM	96.82	NA	NA	3,037.68
	02/11/11	NM	96.42	NA	NA	3,038.08
	08/02/11	110.72	95.90	NA	NA	3,038.60
	08/15/12	110.04	96.03	NA	NA	3,038.47
	01/30/13	110.69	95.79	NA	NA	3,038.71
	07/30/13	110.80	95.92	NA	NA	3,038.58
	01/13/14	110.81	95.96	NA	NA	3,038.54
	07/14/14	110.76	95.91	NA	NA	3,038.59
	01/12/15	NM	96.01	NA	NA	3,038.49
	01/25/16	NM	95.72	NA	NA	3,038.78
	07/20/16	NM	95.85	NA	NA	3,038.65
	01/12/17	NM	95.60	NA	NA	3,038.90
	07/13/17	NM	95.80	NA	NA	3,038.70
	01/12/18	NM	95.41	NA	NA	3,039.09
	07/02/18	NM	95.70	NA	NA	3,038.80
	01/09/19	NM	95.57	NA	NA	3,038.93
	07/11/19	110.59	95.29	NA	NA	3,039.21
	01/14/20	NM	95.15	NA	NA	3,039.35

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-2-MW						
3,135.30	06/13/06	109.87	91.83	NA	NA	3,043.47
	07/13/06	109.87	94.82	NA	NA	3,040.48
	08/15/06	110.00	94.97	NA	NA	3,040.33
	09/13/06	110.00	95.01	NA	NA	3,040.29
	09/20/06	110.00	94.97	NA	NA	3,040.33
	10/04/06	110.00	96.56	NA	NA	3,038.74
	12/08/06	114.32	95.14	NA	NA	3,040.16
	02/13/07	109.87	94.68	NA	NA	3,040.62
	02/28/07	NM	94.68	NA	NA	3,040.62
	07/30/07	109.87	94.82	NA	NA	3,040.48
	01/22/08	109.87	95.04	NA	NA	3,040.26
	07/09/08	109.87	95.10	NA	NA	3,040.20
	01/28/09	109.87	95.29	NA	NA	3,040.01
	08/28/09	109.00	95.37	NA	NA	3,039.93
	02/19/10	NM	94.56	NA	NA	3,040.74
	08/16/10	NM	95.04	NA	NA	3,040.26
	02/11/11	NM	94.99	NA	NA	3,040.31
	08/02/11	108.75	94.48	NA	NA	3,040.82
	08/15/12	108.80	94.99	NA	NA	3,040.31
	01/30/13	108.90	94.57	NA	NA	3,040.73
	07/30/13	109.00	94.61	NA	NA	3,040.69
	01/13/14	109.03	94.56	NA	NA	3,040.74
	07/14/14	109.02	94.65	NA	NA	3,040.65
	01/12/15	NM	94.68	NA	NA	3,040.62
	07/14/15	NM	94.43	NA	NA	3,040.87
	01/25/16	109.01	94.39	NA	NA	3,040.91
	07/20/16	NM	94.45	NA	NA	3,040.85
	01/12/17	NM	94.30	NA	NA	3,041.00
	07/13/17	NM	94.48	NA	NA	3,040.82
	01/12/18	NM	94.15	NA	NA	3,041.15
	07/02/18	NM	94.31	NA	NA	3,040.99
	01/09/19	NM	94.14	NA	NA	3,041.16
	07/11/19	108.70	93.94	NA	NA	3,041.36
	01/14/20	NM	93.85	NA	NA	3,041.45
44-J-3-MW						
3,135.25	07/13/06	113.00	96.77	NA	NA	3,038.48
	08/07/06	113.00	96.94	NA	NA	3,038.31
	08/15/06	113.00	96.98	NA	NA	3,038.27
	09/13/06	113.00	97.01	NA	NA	3,038.24
	09/20/06	113.00	95.96	NA	NA	3,039.29
	10/04/06	113.00	97.10	NA	NA	3,038.15
	12/08/06	120.40	97.04	NA	NA	3,038.21
	01/22/08	114.55	97.63	NA	NA	3,037.62
	08/28/09	114.60	97.97	NA	NA	3,037.28
	02/19/10	NM	97.21	NA	NA	3,038.04
	08/16/10	NM	97.20	NA	NA	3,038.05
	02/11/11	110.00	96.74	NA	NA	3,038.51
	08/02/11	114.71	96.27	NA	NA	3,038.98
	01/30/13	114.83	96.17	NA	NA	3,039.08
	07/30/13	114.55	96.22	NA	NA	3,039.03
	01/13/14	114.55	96.25	NA	NA	3,039.00
	07/14/14	114.51	96.23	NA	NA	3,039.02
	01/12/15	NM	96.30	NA	NA	3,038.95
	07/14/15	NM	96.01	NA	NA	3,039.24
3,140.19	01/25/16	114.59	96.02	NA	NA	3,044.17
	07/20/16	NM	96.03	NA	NA	3,044.16
	01/13/17	NM	95.94	NA	NA	3,044.25
	07/13/17	NM	96.05	NA	NA	3,044.14
	01/12/18	NM	95.72	NA	NA	3,044.47
	07/02/18	NM	95.87	NA	NA	3,044.32
	01/09/19	NM	95.66	NA	NA	3,044.53
	07/11/19	114.35	95.49	NA	NA	3,044.70
	01/14/20	NM	95.39	NA	NA	3,044.80
44-J-4-MW						
3,133.69	07/13/06	111.00	95.79	NA	NA	3,037.90
	08/07/06	111.00	95.97	NA	NA	3,037.72
	08/15/06	111.00	96.02	NA	NA	3,037.67
	09/13/06	111.00	96.04	NA	NA	3,037.65
	09/20/06	111.00	96.00	NA	NA	3,037.69
	10/04/06	111.00	96.11	NA	NA	3,037.58
	12/08/06	115.05	96.09	NA	NA	3,037.60
	01/22/08	113.40	96.77	NA	NA	3,036.92
	08/27/09	113.20	97.09	NA	NA	3,036.60
	02/19/10	NM	96.26	NA	NA	3,037.43
	08/16/10	NM	96.23	NA	NA	3,037.46
	02/11/11	110.00	95.74	NA	NA	3,037.95
	08/02/11	113.43	95.22	NA	NA	3,038.47
	01/30/13	113.25	95.14	NA	NA	3,038.55
	07/30/13	112.95	95.19	NA	NA	3,038.50
	01/13/14	112.93	95.22	NA	NA	3,038.47
	07/14/14	112.94	95.21	NA	NA	3,038.48
	01/12/15	NM	95.25	NA	NA	3,038.44
	07/14/15	NM	94.98	NA	NA	3,038.71
	01/25/16	112.98	94.98	NA	NA	3,038.71
	07/20/16	NM	95.03	NA	NA	3,038.66
	01/12/17	NM	94.92	NA	NA	3,038.77
	07/13/17	NM	95.03	NA	NA	3,038.66
	01/12/18	NM	94.71	NA	NA	3,038.98
	07/02/18	NM	94.87	NA	NA	3,038.82
	01/09/19	NM	94.62	NA	NA	3,039.07
	07/11/19	113.25	94.48	NA	NA	3,039.21
	01/14/20	NM	94.37	NA	NA	3,039.32

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
44-J-5-MW						
3,134.75	06/13/06	110.00	96.83	NA	NA	3,037.92
	07/13/06	110.00	96.83	NA	NA	3,037.92
	08/07/06	110.00	97.00	NA	NA	3,037.75
	08/15/06	110.00	97.01	NA	NA	3,037.74
	09/13/06	110.00	97.05	NA	NA	3,037.70
	09/20/06	110.00	97.02	NA	NA	3,037.73
	10/04/06	110.00	97.13	NA	NA	3,037.62
	12/08/06	117.61	97.13	NA	NA	3,037.62
	01/22/08	113.70	97.53	NA	NA	3,037.22
	08/27/09	113.60	97.88	NA	NA	3,036.87
	08/16/10	NM	97.23	NA	NA	3,037.52
	02/11/11	NM	96.84	NA	NA	3,037.91
	08/02/11	113.71	96.32	NA	NA	3,038.43
	01/30/13	113.70	96.23	NA	NA	3,038.52
	07/30/13	113.23	96.30	NA	NA	3,038.45
	01/13/14	113.25	96.33	NA	NA	3,038.42
	07/14/14	113.20	96.30	NA	NA	3,038.45
	01/12/15	NM	96.38	NA	NA	3,038.37
	07/14/15	NM	96.10	NA	NA	3,038.65
	01/25/16	113.26	96.10	NA	NA	3,038.65
	07/20/16	NM	96.14	NA	NA	3,038.61
	01/12/17	NM	96.02	NA	NA	3,038.73
	07/13/17	NM	96.16	NA	NA	3,038.59
	01/12/18	NM	95.80	NA	NA	3,038.95
	07/02/18	NM	95.98	NA	NA	3,038.77
	01/09/19	NM	95.81	NA	NA	3,038.94
	07/11/19	113.11	95.59	NA	NA	3,039.16
	01/14/20	NM	95.48	NA	NA	3,039.27
45-E-1-MW						
NM	09/12/06	NM	88.92	NA	NA	NA
	12/08/06	105.50	89.15	NA	NA	NA
	02/13/07	107.06	88.51	NA	NA	NA
	02/28/07	NM	88.51	NA	NA	NA
	07/30/07	107.06	88.95	NA	NA	NA
	01/22/08	107.06	90.04	NA	NA	NA
	07/09/08	107.06	89.31	NA	NA	NA
	01/28/09	107.06	89.31	NA	NA	NA
	08/27/09	102.95	89.72	NA	NA	NA
	08/16/10	NM	90.37	NA	NA	NA
	02/11/11	NM	90.36	NA	NA	NA
	08/02/11	103.00	89.70	NA	NA	NA
	01/25/16	103.31	90.58	NA	NA	NA
	07/20/16	NM	90.65	NA	NA	NA
	01/12/17	NM	90.20	NA	NA	NA
	07/13/17	NM	89.96	NA	NA	NA
	01/12/18	NM	88.74	NA	NA	NA
	07/02/18	NM	88.37	NA	NA	NA
	01/09/19	NM	87.95	NA	NA	NA
	07/11/19	102.23	87.66	NA	NA	NA
	01/14/20	NM	87.44	NA	NA	NA
45-E-2-MW						
NM	09/12/06	NM	81.36	NA	NA	NA
	12/08/06	104.00	86.58	NA	NA	NA
	02/13/07	109.28	85.82	NA	NA	NA
	02/28/07	NM	85.82	NA	NA	NA
	07/30/07	109.28	86.49	NA	NA	NA
	01/22/08	109.28	86.58	NA	NA	NA
	07/09/08	109.28	86.86	NA	NA	NA
	01/28/09	109.28	86.79	NA	NA	NA
	08/26/09	104.20	87.28	NA	NA	NA
	08/16/10	NM	87.84	NA	NA	NA
	02/11/11	NM	88.03	NA	NA	NA
	08/02/11	104.25	87.21	NA	NA	NA
	08/15/12	104.23	87.82	NA	NA	NA
	01/25/16	104.48	88.34	NA	NA	NA
	07/20/16	NM	88.33	NA	NA	NA
	01/12/17	NM	87.93	NA	NA	NA
	07/13/17	NM	87.62	NA	NA	NA
	01/12/18	NM	86.23	NA	NA	NA
	07/02/18	NM	88.85	NA	NA	NA
	01/09/19	NM	85.41	NA	NA	NA
	07/11/19	104.10	85.11	NA	NA	NA
	01/14/20	NM	84.89	NA	NA	NA
45-E-3-MW						
NM	02/13/07	107.95	88.68	NA	NA	NA
	02/28/07	NM	88.68	NA	NA	NA
	07/26/07	107.95	89.30	NA	NA	NA
	01/22/08	107.95	89.54	NA	NA	NA
	07/08/08	107.95	89.70	NA	NA	NA
	01/28/06	107.95	89.70	NA	NA	NA
	08/26/09	110.00	90.06	NA	NA	NA
	08/16/10	NM	90.63	NA	NA	NA
	02/11/11	107.00	90.74	NA	NA	NA
	08/02/11	107.91	90.19	NA	NA	NA
	07/20/16	NM	91.05	NA	NA	NA
	01/11/17	NM	90.50	NA	NA	NA
	07/13/17	NM	90.37	NA	NA	NA
	01/12/18	NM	89.35	NA	NA	NA
	07/02/18	NM	88.75	NA	NA	NA
	01/09/19	NM	88.41	NA	NA	NA
	07/11/19	107.18	88.13	NA	NA	NA
	01/15/20	NM	87.87	NA	NA	NA

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
45-F-1-MW						
NM	06/13/06	108.19	90.99	NA	NA	NA
	09/12/06	NM	90.15	NA	NA	NA
	12/08/06	107.40	90.34	NA	NA	NA
	02/13/07	108.19	90.22	NA	NA	NA
	02/28/07	NM	90.02	NA	NA	NA
	07/30/07	108.19	90.22	NA	NA	NA
	01/22/08	108.19	90.52	NA	NA	NA
	07/09/08	108.19	90.63	NA	NA	NA
	01/28/09	108.19	90.81	NA	NA	NA
	08/27/09	106.80	90.93	NA	NA	NA
	08/16/10	NM	91.41	NA	NA	NA
	02/11/11	NM	91.52	NA	NA	NA
	08/02/11	107.03	91.15	NA	NA	NA
	08/15/12	108.02	91.40	NA	NA	NA
	01/30/13	106.82	91.29	NA	NA	NA
	07/30/13	107.90	91.70	NA	NA	NA
	01/14/13	107.94	91.71	NA	NA	NA
	07/14/14	107.87	91.53	NA	NA	NA
	01/12/15	NM	91.78	NA	NA	NA
	07/14/15	NM	91.62	NA	NA	NA
	01/25/16	107.90	91.72	NA	NA	NA
	07/20/16	NM	91.56	NA	NA	NA
	01/12/17	NM	91.40	NA	NA	NA
	07/13/17	NM	90.96	NA	NA	NA
	01/12/18	NM	90.44	NA	NA	NA
	07/02/18	NM	90.14	NA	NA	NA
	01/09/19	NM	89.78	NA	NA	NA
	07/11/19	106.79	89.49	NA	NA	NA
	01/14/20	NM	89.28	NA	NA	NA
45-FF-MW						
3,122.70	06/13/06	111.19	90.57	NA	NA	3,032.13
	09/12/06	NM	90.77	NA	NA	3,031.93
	12/08/06	114.00	90.94	NA	NA	3,031.76
	02/13/07	111.19	90.58	NA	NA	3,032.12
	02/28/07	NM	90.58	NA	NA	3,032.12
	07/30/07	111.19	90.81	NA	NA	3,031.89
	01/22/08	111.19	91.16	NA	NA	3,031.54
	07/09/08	111.19	91.22	NA	NA	3,031.48
	01/28/09	111.19	91.16	NA	NA	3,031.54
	08/27/09	107.50	91.54	NA	NA	3,031.16
	08/16/10	NM	92.01	NA	NA	3,030.69
	02/11/11	NM	92.19	NA	NA	3,030.51
	08/02/11	111.11	91.71	NA	NA	3,030.99
	01/30/13	110.91	91.92	NA	NA	3,030.78
	07/30/13	110.50	92.30	NA	NA	3,030.40
	01/13/14	110.51	92.33	NA	NA	3,030.37
	07/14/14	110.48	92.02	NA	NA	3,030.68
	01/12/15	NM	92.41	NA	NA	3,030.29
	07/14/15	NM	92.30	NA	NA	3,030.40
	01/25/16	110.94	92.36	NA	NA	3,030.34
	07/20/16	NM	92.16	NA	NA	3,030.54
	01/12/17	NM	91.96	NA	NA	3,030.74
	07/13/17	NM	91.55	NA	NA	3,031.15
	01/12/18	NM	90.90	NA	NA	3,031.80
	07/02/18	NM	90.54	NA	NA	3,032.16
	01/09/19	NM	90.31	NA	NA	3,032.39
	07/11/19	110.16	89.90	NA	NA	3,032.80
	01/14/20	NM	89.70	NA	NA	3,033.00
58-B-1-MW						
3,100.59	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	87.12	NA	NA	3,013.47
	12/08/06	106.20	87.06	NA	NA	3,013.53
	02/13/07	105.50	87.02	NA	NA	3,013.57
	02/28/07	NM	87.02	NA	NA	3,013.57
	07/26/07	105.50	87.37	NA	NA	3,013.22
	01/22/08	105.50	87.79	NA	NA	3,012.80
	07/08/08	105.50	87.67	NA	NA	3,012.92
	01/28/09	104.79	87.67	NA	NA	3,012.92
	08/26/09	104.80	87.77	NA	NA	3,012.82
	08/16/10	NM	87.88	NA	NA	3,012.71
	02/11/11	NM	87.43	NA	NA	3,013.16
	08/05/11	104.55	87.00	NA	NA	3,013.59
	08/15/12	104.59	88.12	NA	NA	3,012.47
	01/30/13	107.53	87.76	NA	NA	3,012.83
	07/30/13	104.50	88.56	NA	NA	3,012.03
	01/13/14	104.56	88.60	NA	NA	3,011.99
	07/14/14	104.47	87.92	NA	NA	3,012.67
	01/12/15	NM	88.38	NA	NA	3,012.21
	07/22/16	NM	87.70	NA	NA	3,012.89
	01/13/17	NM	87.20	NA	NA	3,013.39
	07/13/17	NM	86.71	NA	NA	3,013.88
	01/12/18	NM	85.34	NA	NA	3,015.25
	07/02/18	NM	86.12	NA	NA	3,014.47
	01/07/19	NM	85.76	NA	NA	3,014.83
	07/09/19	104.40	85.69	NA	NA	3,014.90
	01/14/20	NM	85.52	NA	NA	3,015.07

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
58-B-2-MW						
3,111.91	06/14/06	NM	NM	NA	NA	NA
	09/12/06	NM	85.80	NA	NA	3,026.11
	12/08/06	NM	85.60	NA	NA	3,026.31
	02/13/07	105.45	85.61	NA	NA	3,026.30
	02/28/07	NM	85.61	NA	NA	3,026.30
	07/26/07	105.45	85.88	NA	NA	3,026.03
	01/22/08	105.45	86.28	NA	NA	3,025.63
	07/08/08	105.45	86.16	NA	NA	3,025.75
	01/28/09	105.45	86.23	NA	NA	3,025.68
	08/26/09	104.50	86.33	NA	NA	3,025.58
	08/16/10	NM	86.42	NA	NA	3,025.49
	02/11/11	NM	86.11	NA	NA	3,025.80
	08/02/11	105.12	85.75	NA	NA	3,026.16
	08/15/12	105.43	86.70	NA	NA	3,025.21
	07/14/15	NM	88.61	NA	NA	3,023.30
	01/25/16	105.08	85.92	NA	NA	3,025.99
	07/22/16	NM	86.40	NA	NA	3,025.51
	01/13/17	NM	85.92	NA	NA	3,025.99
	07/13/17	NM	85.55	NA	NA	3,026.36
	01/12/18	NM	86.47	NA	NA	3,025.44
	07/02/18	NM	85.10	NA	NA	3,026.81
	01/07/19	NM	84.75	NA	NA	3,027.16
	07/09/19	104.47	84.67	NA	NA	3,027.24
	01/14/20	NM	84.52	NA	NA	3,027.39
58-B-3-MW						
3,108.46	02/13/07	100.75	89.48	NA	NA	3,018.98
	02/28/07	NM	89.48	NA	NA	3,018.98
	07/26/07	100.75	89.39	NA	NA	3,019.07
	01/22/08	100.75	89.71	NA	NA	3,018.75
	07/08/08	100.75	89.75	NA	NA	3,018.71
	01/28/09	100.75	89.81	NA	NA	3,018.65
	08/26/09	104.00	89.88	NA	NA	3,018.58
	08/16/10	NM	90.05	NA	NA	3,018.41
	02/11/11	102.00	90.02	NA	NA	3,018.44
	08/02/11	100.68	89.97	NA	NA	3,018.49
	08/15/12	100.73	90.11	NA	NA	3,018.35
	01/30/13	100.89	90.16	NA	NA	3,018.30
	07/30/13	100.80	90.24	NA	NA	3,018.22
	01/13/14	100.80	90.33	NA	NA	3,018.13
	07/14/14	100.79	90.39	NA	NA	3,018.07
	01/12/15	NM	89.80	NA	NA	3,018.66
	07/14/15	NM	90.06	NA	NA	3,018.40
	01/25/16	100.78	90.08	NA	NA	3,018.38
	07/22/16	NM	90.14	NA	NA	3,018.32
	01/10/17	NM	90.02	NA	NA	3,018.44
	07/13/17	NM	89.88	NA	NA	3,018.58
	01/12/18	NM	89.78	NA	NA	3,018.68
	07/02/18	NM	89.62	NA	NA	3,018.84
	01/07/19	NM	89.36	NA	NA	3,019.10
	07/09/19	100.68	89.37	NA	NA	3,019.09
	01/13/20	NM	89.23	NA	NA	3,019.23
MW-2						
3,204.56	8/7/2015	NM	104.07	NA	NA	3,100.49
	1/25/2016	109.14	109.05	NA	NA	3,095.51
	7/21/2016	NM	109.10	NA	NA	3,095.46
	1/12/2017	NM	109.20	NA	NA	3,095.36
	4/10/2017	109.71	DRY	NA	NA	DRY
	7/13/2017	NM	109.14	NA	NA	3,095.42
	10/3/2017	109.33	DRY	NA	NA	DRY
	1/12/2018	109.15	DRY	NA	NA	DRY
	4/2/2018	109.15	DRY	NA	NA	DRY
	07/02/18	109.15	DRY	NA	NA	DRY
	10/1/2018	109.58	DRY	NA	NA	DRY
	1/8/2019	109.70	DRY	NA	NA	DRY
	4/9/2019	109.45	DRY	NA	NA	DRY
	7/9/2019	109.14	DRY	NA	NA	DRY
	10/9/2019	NM	DRY	NA	NA	DRY
	1/16/2020	NM	DRY	NA	NA	DRY
	4/7/2020	109.11	DRY	NA	NA	DRY
MW-3						
3,199.51	8/7/2015	NM	112.88	NA	NA	3,086.63
	1/25/2016	119.30	112.95	NA	NA	3,086.56
	7/21/2016	NM	113.02	NA	NA	3,086.49
	1/11/2017	NM	112.95	NA	NA	3,086.56
	4/10/2017	NM	113.17	NA	NA	3,086.34
	7/13/2017	NM	113.04	NA	NA	3,086.47
	10/3/2017	NM	113.11	NA	NA	3,086.40
	1/12/2018	NM	113.04	NA	NA	3,086.47
	4/2/2018	NM	113.20	NA	NA	3,086.31
	07/02/18	NM	113.09	NA	NA	3,086.42
	10/1/2018	NM	113.14	NA	NA	3,086.37
	1/8/2019	NM	113.10	NA	NA	3,086.41
	4/9/2019	NM	113.13	NA	NA	3,086.38
	7/10/2019	119.39	113.19	NA	NA	3,086.32
	10/9/2019	NM	113.78	NA	NA	3,085.73
	1/16/2020	NM	113.29	NA	NA	3,086.22
	4/7/2020	119.44	113.24	NA	NA	3,086.27

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-4						
3,189.69	8/7/2015	NM	115.53	NA	NA	3,074.16
	1/25/2016	116.91	115.60	NA	NA	3,074.09
	7/21/2016	NM	115.65	NA	NA	3,074.04
	1/11/2017	NM	115.55	NA	NA	3,074.14
	4/10/2017	117.74	115.67	NA	NA	3,074.02
	7/13/2017	NM	115.64	NA	NA	3,074.05
	10/3/2017	118.13	115.65	NA	NA	3,074.04
	1/12/2018	NM	115.60	NA	NA	3,074.09
	4/2/2018	NM	115.70	NA	NA	3,073.99
	07/02/18	NM	115.61	NA	NA	3,074.08
	10/1/2018	NM	115.72	NA	NA	3,073.97
	1/8/2019	NM	115.65	NA	NA	3,074.04
	4/9/2019	NM	115.70	NA	NA	3,073.99
	7/10/2019	116.93	115.74	NA	NA	3,073.95
	10/9/2019	NM	115.93	NA	NA	3,073.76
	1/16/2020	NM	115.86	NA	NA	3,073.83
	4/7/2020	117.55	115.76	NA	NA	3,073.93
MW-5						
3,174.43	8/7/2015	NM	102.74	NA	NA	3,071.69
	1/25/2016	116.91	102.78	NA	NA	3,071.65
	7/21/2016	NM	102.84	NA	NA	3,071.59
	1/11/2017	NM	102.80	NA	NA	3,071.63
	4/10/2017	116.95	102.85	NA	NA	3,071.58
	7/13/2017	NM	102.88	NA	NA	3,071.55
	10/3/2017	NM	102.91	NA	NA	3,071.52
	1/12/2018	NM	102.95	NA	NA	3,071.48
	4/2/2018	NM	102.94	NA	NA	3,071.49
	07/02/18	NM	102.93	NA	NA	3,071.50
	10/1/2018	NM	103.00	NA	NA	3,071.43
	1/8/2019	NM	102.90	NA	NA	3,071.53
	4/9/2019	NM	102.99	NA	NA	3,071.44
	7/10/2019	116.96	103.00	NA	NA	3,071.43
	10/9/2019	NM	103.02	NA	NA	3,071.41
	1/16/2020	NM	103.07	NA	NA	3,071.36
	4/7/2020	116.97	103.03	NA	NA	3,071.40
MW-6						
3,165.25	8/7/2015	NM	93.97	NA	NA	3,071.28
	1/25/2016	130.94	94.21	NA	NA	3,071.04
	7/21/2016	NM	94.28	NA	NA	3,070.97
	1/11/2017	NM	94.01	NA	NA	3,071.24
	4/10/2017	130.83	94.21	NA	NA	3,071.04
	7/13/2017	NM	94.11	NA	NA	3,071.14
	10/3/2017	NM	94.14	NA	NA	3,071.11
	1/12/2018	NM	93.80	NA	NA	3,071.45
	4/2/2018	NM	94.18	NA	NA	3,071.07
	07/02/18	NM	93.89	NA	NA	3,071.36
	10/1/2018	NM	93.90	NA	NA	3,071.35
	1/8/2019	NM	93.94	NA	NA	3,071.31
	4/9/2019	NM	93.74	NA	NA	3,071.51
	7/10/2019	128.94	93.92	NA	NA	3,071.33
	10/9/2019	NM	93.80	NA	NA	3,071.45
	1/15/2020	NM	94.01	NA	NA	3,071.24
	4/7/2020	130.92	93.99	NA	NA	3,071.26
MW-7						
3,132.14	8/7/2015	NM	112.10	NA	NA	3,020.04
	1/25/2016	117.20	112.77	NA	NA	3,019.37
	7/21/2016	NM	114.50	NA	NA	3,017.64
	1/11/2017	NM	115.92	NA	NA	3,016.22
	4/10/2017	116.73	DRY	NA	NA	DRY
	7/13/2017	116.55	DRY	NA	NA	DRY
	10/3/2017	116.46	DRY	NA	NA	DRY
	1/12/2018	NM	DRY	NA	NA	DRY
	4/2/2018	116.66	DRY	NA	NA	DRY
	07/02/18	116.70	DRY	NA	NA	DRY
	10/1/2018	116.61	DRY	NA	NA	DRY
	1/8/2019	116.61	DRY	NA	NA	DRY
	4/5/2019	117.09	DRY	NA	NA	DRY
	7/10/2019	116.59	DRY	NA	NA	DRY
	10/8/2019	NM	DRY	NA	NA	DRY
	1/14/2020	NM	DRY	NA	NA	DRY
	4/7/2020	116.60	DRY	NA	NA	DRY
MW-8						
3,107.34	8/7/2015	NM	85.03	NA	NA	3,022.31
	1/25/2016	110.98	85.46	NA	NA	3,021.88
	7/21/2016	NM	85.10	NA	NA	3,022.24
	1/13/2017	NM	84.95	NA	NA	3,022.39
	4/7/2017	110.98	85.00	NA	NA	3,022.34
	7/13/2017	NM	84.68	NA	NA	3,022.66
	10/3/2017	NM	84.86	NA	NA	3,022.48
	1/12/2018	NM	84.75	NA	NA	3,022.59
	4/2/2018	NM	85.20	NA	NA	3,022.14
	07/02/18	NM	85.09	NA	NA	3,022.25
	10/1/2018	NM	84.83	NA	NA	3,022.51
	1/8/2019	NM	84.81	NA	NA	3,022.53
	4/5/2019	NM	84.52	NA	NA	3,022.82
	7/9/2019	110.97	84.45	NA	NA	3,022.89
	10/8/2019	NM	84.33	NA	NA	3,023.01
	1/14/2020	NM	84.42	NA	NA	3,022.92
	4/7/2020	111.00	84.35	NA	NA	3,022.99

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-9						
3,103.82	8/7/2015	NM	85.68	NA	NA	3,018.14
	1/25/2016	105.30	85.87	NA	NA	3,017.95
	7/21/2016	NM	85.80	NA	NA	3,018.02
	1/13/2017	NM	85.76	NA	NA	3,018.06
	4/7/2017	105.28	85.65	NA	NA	3,018.17
	7/13/2017	NM	85.50	NA	NA	3,018.32
	10/3/2017	NM	85.53	NA	NA	3,018.29
	1/12/2018	NM	85.38	NA	NA	3,018.44
	4/2/2018	NM	85.73	NA	NA	3,018.09
	07/02/18	NM	85.24	NA	NA	3,018.58
	10/1/2018	NM	85.24	NA	NA	3,018.58
	1/7/2019	NM	85.05	NA	NA	3,018.77
	4/5/2019	NM	85.09	NA	NA	3,018.73
	7/9/2019	102.06	85.02	NA	NA	3,018.80
	10/8/2019	NM	84.93	NA	NA	3,018.89
	1/15/2020	NM	85.02	NA	NA	3,018.80
	4/7/2020	101.63	84.91	NA	NA	3,018.91
MW-10						
3,139.71	8/7/2015	NM	97.21	NA	NA	3,042.50
	1/25/2016	116.50	97.33	NA	NA	3,042.38
	7/20/2016	NM	97.18	NA	NA	3,042.53
	1/12/2017	NM	97.21	NA	NA	3,042.50
	4/7/2017	116.36	97.22	NA	NA	3,042.49
	7/13/2017	NM	97.12	NA	NA	3,042.59
	10/3/2017	NM	97.35	NA	NA	3,042.36
	1/12/2018	NM	97.30	NA	NA	3,042.41
	4/2/2018	NM	97.41	NA	NA	3,042.30
	07/02/18	NM	97.24	NA	NA	3,042.47
	10/1/2018	NM	97.35	NA	NA	3,042.36
	1/8/2019	NM	97.35	NA	NA	3,042.36
	4/5/2019	NM	97.22	NA	NA	3,042.49
	7/9/2019	116.65	97.22	NA	NA	3,042.49
	10/8/2019	NM	97.12	NA	NA	3,042.59
	1/15/2020	NM	97.32	NA	NA	3,042.39
	4/7/2020	116.38	97.17	NA	NA	3,042.54
MW-11						
3,156.65	8/7/2015	NM	102.00	NA	NA	3,054.65
	1/25/2016	110.23	102.08	NA	NA	3,054.57
	7/21/2016	NM	102.16	NA	NA	3,054.49
	1/11/2017	NM	102.10	NA	NA	3,054.55
	4/10/2017	110.02	102.22	NA	NA	3,054.43
	7/13/2017	NM	102.22	NA	NA	3,054.43
	10/3/2017	NM	102.28	NA	NA	3,054.37
	1/12/2018	NM	102.18	NA	NA	3,054.47
	4/2/2018	NM	102.39	NA	NA	3,054.26
	07/02/18	NM	102.28	NA	NA	3,054.37
	10/1/2018	NM	102.35	NA	NA	3,054.30
	1/8/2019	NM	102.35	NA	NA	3,054.30
	4/9/2019	NM	102.45	NA	NA	3,054.20
	7/10/2019	110.03	102.41	NA	NA	3,054.24
	10/9/2019	NM	102.36	NA	NA	3,054.29
	1/15/2020	NM	102.47	NA	NA	3,054.18
	4/7/2020	110.09	102.45	NA	NA	3,054.20
MW-12						
3,151.33	8/7/2015	NM	94.70	NA	NA	3,056.63
	1/25/2016	114.18	94.68	NA	NA	3,056.65
	7/20/2016	NM	94.69	NA	NA	3,056.64
	1/11/2017	NM	94.70	NA	NA	3,056.63
	4/7/2017	114.15	94.66	NA	NA	3,056.67
	7/13/2017	NM	94.60	NA	NA	3,056.73
	10/3/2017	NM	94.87	NA	NA	3,056.46
	1/12/2018	NM	94.66	NA	NA	3,056.67
	4/2/2018	NM	94.74	NA	NA	3,056.59
	07/02/18	NM	94.71	NA	NA	3,056.62
	10/1/2018	NM	94.87	NA	NA	3,056.46
	1/8/2019	NM	94.92	NA	NA	3,056.41
	4/10/2019	NM	94.75	NA	NA	3,056.58
	7/9/2019	114.14	94.85	NA	NA	3,056.48
	10/8/2019	NM	94.71	NA	NA	3,056.62
	1/15/2020	NM	94.97	NA	NA	3,056.36
	4/7/2020	114.16	94.85	NA	NA	3,056.48
MW-13						
3,168.41	8/7/2015	NM	98.61	NA	NA	3,069.80
	1/25/2016	127.85	98.88	NA	NA	3,069.53
	7/21/2016	NM	98.78	NA	NA	3,069.63
	1/11/2017	NM	98.49	NA	NA	3,069.92
	4/10/2017	127.90	98.70	NA	NA	3,069.71
	7/13/2017	NM	98.60	NA	NA	3,069.81
	10/3/2017	NM	98.70	NA	NA	3,069.71
	1/12/2018	NM	98.61	NA	NA	3,069.80
	4/2/2018	NM	98.80	NA	NA	3,069.61
	07/02/18	NM	98.74	NA	NA	3,069.67
	10/1/2018	NM	98.88	NA	NA	3,069.53
	1/8/2019	NM	98.90	NA	NA	3,069.51
	4/10/2019	NM	98.83	NA	NA	3,069.58
	7/10/2019	127.89	98.88	NA	NA	3,069.53
	10/9/2019	NM	98.94	NA	NA	3,069.47
	1/16/2020	NM	98.99	NA	NA	3,069.42
	4/8/2020	127.95	98.89	NA	NA	3,069.52

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-14						
3,182.69	8/7/2015	NM	106.69	NA	NA	3,076.00
	1/25/2016	124.62	106.78	NA	NA	3,075.91
	7/21/2016	NM	106.90	NA	NA	3,075.79
	1/11/2017	NM	106.78	NA	NA	3,075.91
	4/10/2017	124.48	107.01	NA	NA	3,075.68
	7/13/2017	NM	106.88	NA	NA	3,075.81
	10/3/2017	NM	106.95	NA	NA	3,075.74
	1/12/2018	NM	106.85	NA	NA	3,075.84
	4/2/2018	NM	107.00	NA	NA	3,075.69
	07/02/18	NM	106.91	NA	NA	3,075.78
	10/1/2018	NM	106.98	NA	NA	3,075.71
	1/8/2019	NM	106.97	NA	NA	3,075.72
	4/9/2019	NM	106.96	NA	NA	3,075.73
	7/10/2019	124.43	107.00	NA	NA	3,075.69
	10/9/2019	NM	106.96	NA	NA	3,075.73
	1/16/2020	NM	107.06	NA	NA	3,075.63
	4/8/2020	124.43	106.99	NA	NA	3,075.70
MW-15						
3,184.55	8/7/2015	NM	104.29	NA	NA	3,080.26
	1/25/2016	126.36	104.56	NA	NA	3,079.99
	7/21/2016	NM	104.60	NA	NA	3,079.95
	1/11/2017	NM	104.45	NA	NA	3,080.10
	4/10/2017	NM	104.76	NA	NA	3,079.79
	7/13/2017	NM	104.52	NA	NA	3,080.03
	10/3/2017	NM	104.66	NA	NA	3,079.89
	1/12/2018	NM	104.45	NA	NA	3,080.10
	4/2/2018	NM	104.63	NA	NA	3,079.92
	07/02/18	NM	104.56	NA	NA	3,079.99
	10/1/2018	NM	104.57	NA	NA	3,079.98
	1/8/2019	NM	104.54	NA	NA	3,080.01
	4/10/2019	NM	104.50	NA	NA	3,080.05
	7/10/2019	126.59	104.49	NA	NA	3,080.06
	10/9/2019	NM	104.35	NA	NA	3,080.20
	1/16/2020	NM	104.51	NA	NA	3,080.04
	4/8/2020	126.64	104.42	NA	NA	3,080.13
MW-16						
3,167.93	8/7/2015	NM	99.76	NA	NA	3,068.17
	1/25/2016	119.30	99.86	NA	NA	3,068.07
	7/21/2016	NM	100.02	NA	NA	3,067.91
	1/11/2017	NM	99.88	NA	NA	3,068.05
	4/10/2017	119.07	100.03	NA	NA	3,067.90
	7/13/2017	NM	99.94	NA	NA	3,067.99
	10/3/2017	NM	100.01	NA	NA	3,067.92
	1/12/2018	NM	99.83	NA	NA	3,068.10
	4/2/2018	NM	99.97	NA	NA	3,067.96
	07/02/18	NM	99.92	NA	NA	3,068.01
	10/1/2018	NM	99.93	NA	NA	3,068.00
	1/8/2019	NM	99.86	NA	NA	3,068.07
	4/10/2019	NM	99.86	NA	NA	3,068.07
	7/10/2019	119.06	99.83	NA	NA	3,068.10
	10/9/2019	NM	99.72	NA	NA	3,068.21
	1/16/2020	NM	99.80	NA	NA	3,068.13
	4/8/2020	119.10	99.70	NA	NA	3,068.23
MW-17						
3,147.44	8/7/2015	NM	83.74	NA	NA	3,063.70
	1/25/2016	118.27	84.18	NA	NA	3,063.26
	7/20/2016	NM	82.79	NA	NA	3,064.65
	1/11/2017	NM	83.75	NA	NA	3,063.69
	4/10/2017	118.26	84.27	NA	NA	3,063.17
	7/13/2017	NM	84.06	NA	NA	3,063.38
	10/3/2017	NM	84.08	NA	NA	3,063.36
	1/12/2018	NM	83.79	NA	NA	3,063.65
	4/2/2018	NM	84.26	NA	NA	3,063.18
	07/02/18	NM	84.32	NA	NA	3,063.12
	10/1/2018	NM	84.41	NA	NA	3,063.03
	1/8/2019	NM	84.25	NA	NA	3,063.19
	4/10/2019	NM	84.02	NA	NA	3,063.42
	7/10/2019	118.20	84.15	NA	NA	3,063.29
	10/9/2019	NM	84.09	NA	NA	3,063.35
	1/16/2020	NM	84.24	NA	NA	3,063.20
	4/8/2020	118.34	84.15	NA	NA	3,063.29
MW-18						
3,155.01	8/7/2015	NM	95.94	NA	NA	3,059.07
	1/25/2016	122.40	95.81	NA	NA	3,059.20
	7/20/2016	NM	95.91	NA	NA	3,059.10
	1/12/2017	NM	95.82	NA	NA	3,059.19
	4/7/2017	122.37	95.76	NA	NA	3,059.25
	7/13/2017	NM	95.67	NA	NA	3,059.34
	10/3/2017	NM	95.87	NA	NA	3,059.14
	1/12/2018	NM	95.72	NA	NA	3,059.29
	4/2/2018	NM	95.80	NA	NA	3,059.21
	07/02/18	NM	95.74	NA	NA	3,059.27
	10/1/2018	NM	95.90	NA	NA	3,059.11
	1/8/2019	NM	95.88	NA	NA	3,059.13
	4/9/2019	NM	95.76	NA	NA	3,059.25
	7/10/2019	122.35	95.89	NA	NA	3,059.12
	10/9/2019	NM	95.84	NA	NA	3,059.17
	1/15/2020	NM	95.92	NA	NA	3,059.09
	4/7/2020	122.47	95.83	NA	NA	3,059.18

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-19						
3,149.90	8/7/2015	NM	99.58	NA	NA	3,050.32
	1/25/2016	115.04	99.68	NA	NA	3,050.22
	7/20/2016	NM	99.78	NA	NA	3,050.12
	1/12/2017	NM	99.68	NA	NA	3,050.22
	4/7/2017	115.03	99.78	NA	NA	3,050.12
	7/13/2017	NM	99.61	NA	NA	3,050.29
	10/3/2017	NM	99.83	NA	NA	3,050.07
	1/12/2018	NM	99.63	NA	NA	3,050.27
	4/2/2018	NM	99.69	NA	NA	3,050.21
	07/02/18	NM	99.85	NA	NA	3,050.05
	10/1/2018	NM	99.75	NA	NA	3,050.15
	1/8/2019	NM	99.78	NA	NA	3,050.12
	4/9/2019	NM	99.56	NA	NA	3,050.34
	7/10/2019	114.99	99.69	NA	NA	3,050.21
	10/9/2019	NM	99.54	NA	NA	3,050.36
	1/15/2020	NM	99.67	NA	NA	3,050.23
	4/7/2020	115.01	99.56	NA	NA	3,050.34
MW-20						
3,120.09	8/7/2015	NM	88.96	NA	NA	3,031.13
	1/25/2016	112.91	88.96	NA	NA	3,031.13
	7/20/2016	NM	89.07	NA	NA	3,031.02
	1/12/2017	NM	89.00	NA	NA	3,031.09
	4/7/2017	112.65	88.97	NA	NA	3,031.12
	7/13/2017	NM	88.76	NA	NA	3,031.33
	10/3/2017	NM	88.88	NA	NA	3,031.21
	1/12/2018	NM	88.75	NA	NA	3,031.34
	4/2/2018	NM	88.67	NA	NA	3,031.42
	07/02/18	NM	88.69	NA	NA	3,031.40
	10/1/2018	NM	88.59	NA	NA	3,031.50
	1/8/2019	NM	88.57	NA	NA	3,031.52
	4/5/2019	NM	88.37	NA	NA	3,031.72
	7/9/2019	112.53	88.31	NA	NA	3,031.78
	10/8/2019	NM	88.19	NA	NA	3,031.90
	1/14/2020	NM	88.27	NA	NA	3,031.82
	4/7/2020	112.51	88.15	NA	NA	3,031.94
MW-21						
3,159.65	7/21/2016	NM	92.31	NA	NA	3,067.34
	1/12/2017	NM	92.41	NA	NA	3,067.24
	4/10/2017	123.74	92.65	NA	NA	3,067.00
	7/13/2017	NM	92.55	NA	NA	3,067.10
	10/3/2017	NM	92.65	NA	NA	3,067.00
	1/12/2018	NM	92.47	NA	NA	3,067.18
	4/2/2018	NM	92.64	NA	NA	3,067.01
	07/02/18	NM	92.65	NA	NA	3,067.00
	10/1/2018	NM	92.74	NA	NA	3,066.91
	1/8/2019	NM	92.73	NA	NA	3,066.92
	4/10/2019	NM	92.64	NA	NA	3,067.01
	7/10/2019	123.75	92.70	NA	NA	3,066.95
	10/9/2019	NM	92.61	NA	NA	3,067.04
	1/16/2020	NM	92.80	NA	NA	3,066.85
	4/8/2020	123.76	92.65	NA	NA	3,067.00
MW-22						
3,152.50	4/10/2017	117.94	87.78	NA	NA	3,064.72
	7/13/2017	NM	87.64	NA	NA	3,064.86
	10/3/2017	NM	87.71	NA	NA	3,064.79
	1/12/2018	NM	87.50	NA	NA	3,065.00
	4/2/2018	NM	87.75	NA	NA	3,064.75
	07/02/18	NM	87.75	NA	NA	3,064.75
	10/1/2018	NM	87.85	NA	NA	3,064.65
	1/8/2019	NM	87.90	NA	NA	3,064.60
	4/10/2019	NM	87.79	NA	NA	3,064.71
	7/10/2019	114.81	87.93	NA	NA	3,064.57
	10/9/2019	NM	87.80	NA	NA	3,064.70
	1/16/2020	NM	88.03	NA	NA	3,064.47
	4/8/2020	117.15	87.91	NA	NA	3,064.59
MW-23						
3,151.66	7/21/2016	NM	87.03	NA	NA	3,064.63
	1/11/2017	NM	86.74	NA	NA	3,064.92
	4/10/2017	124.94	87.02	NA	NA	3,064.64
	7/13/2017	NM	86.86	NA	NA	3,064.80
	10/3/2017	NM	86.95	NA	NA	3,064.71
	1/12/2018	NM	86.75	NA	NA	3,064.91
	4/2/2018	NM	86.98	NA	NA	3,064.68
	07/02/18	NM	86.98	NA	NA	3,064.68
	10/1/2018	NM	87.08	NA	NA	3,064.58
	1/8/2019	NM	87.17	NA	NA	3,064.49
	4/10/2019	NM	87.02	NA	NA	3,064.64
	7/10/2019	104.97	87.12	NA	NA	3,064.54
	10/9/2019	NM	87.06	NA	NA	3,064.60
	1/16/2020	NM	87.26	NA	NA	3,064.40
	4/8/2020	124.89	87.12	NA	NA	3,064.54

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-24						
3,144.88	7/20/2016	NM	95.02	NA	NA	3,049.86
	1/12/2017	NM	95.11	NA	NA	3,049.77
	4/7/2017	115.39	95.15	NA	NA	3,049.73
	7/13/2017	NM	95.11	NA	NA	3,049.77
	10/3/2017	NM	95.33	NA	NA	3,049.55
	1/12/2018	NM	95.18	NA	NA	3,049.70
	4/2/2018	NM	95.23	NA	NA	3,049.65
	07/02/18	NM	95.12	NA	NA	3,049.76
	10/1/2018	NM	95.25	NA	NA	3,049.63
	1/8/2019	NM	95.22	NA	NA	3,049.66
	4/9/2019	NM	95.05	NA	NA	3,049.83
	7/9/2019	115.43	95.08	NA	NA	3,049.80
	10/8/2019	NM	95.03	NA	NA	3,049.85
	1/15/2020	NM	95.19	NA	NA	3,049.69
	4/7/2020	115.46	95.06	NA	NA	3,049.82
MW-25						
3,165.45	7/21/2016	NM	103.05	NA	NA	3,062.40
	1/11/2017	NM	103.00	NA	NA	3,062.45
	4/10/2017	116.81	103.26	NA	NA	3,062.19
	7/13/2017	NM	103.17	NA	NA	3,062.28
	10/3/2017	NM	103.20	NA	NA	3,062.25
	1/12/2018	NM	103.04	NA	NA	3,062.41
	4/2/2018	NM	103.50	NA	NA	3,061.95
	07/02/18	NM	103.29	NA	NA	3,062.16
	10/1/2018	NM	103.34	NA	NA	3,062.11
	1/8/2019	NM	103.39	NA	NA	3,062.06
	4/9/2019	NM	103.28	NA	NA	3,062.17
	7/10/2019	116.79	103.38	NA	NA	3,062.07
	10/9/2019	NM	103.31	NA	NA	3,062.14
	1/15/2020	NM	103.45	NA	NA	3,062.00
	4/7/2020	116.81	103.41	NA	NA	3,062.04
MW-26						
3,136.99	1/12/2017	NM	93.78	NA	NA	3,043.21
	4/7/2017	108.41	93.83	NA	NA	3,043.16
	7/13/2017	NM	93.75	NA	NA	3,043.24
	10/3/2017	NM	94.00	NA	NA	3,042.99
	1/12/2018	NM	93.76	NA	NA	3,043.23
	4/2/2018	NM	93.89	NA	NA	3,043.10
	07/02/18	NM	94.00	NA	NA	3,042.99
	10/1/2018	NM	93.91	NA	NA	3,043.08
	1/6/2019	NM	93.88	NA	NA	3,043.11
	4/9/2019	NM	93.74	NA	NA	3,043.25
	7/9/2019	108.37	93.76	NA	NA	3,043.23
	10/8/2019	NM	93.61	NA	NA	3,043.38
	1/15/2020	NM	93.84	NA	NA	3,043.15
	4/7/2020	108.41	93.71	NA	NA	3,043.28
MW-27						
3,126.99	7/20/2016	NM	91.61	NA	NA	3,035.38
	1/11/2017	NM	91.40	NA	NA	3,035.59
	4/7/2017	108.40	91.65	NA	NA	3,035.34
	7/13/2017	NM	91.60	NA	NA	3,035.39
	10/3/2017	NM	91.80	NA	NA	3,035.19
	1/12/2018	NM	91.78	NA	NA	3,035.21
	4/2/2018	NM	92.08	NA	NA	3,034.91
	07/02/18	NM	91.98	NA	NA	3,035.01
	10/1/2018	NM	92.07	NA	NA	3,034.92
	1/8/2019	NM	91.86	NA	NA	3,035.13
	4/5/2019	NM	91.70	NA	NA	3,035.29
	7/9/2019	108.04	91.66	NA	NA	3,035.33
	10/8/2019	NM	91.50	NA	NA	3,035.49
	1/14/2020	NM	91.50	NA	NA	3,035.49
	4/7/2020	108.48	91.42	NA	NA	3,035.57
MW-28						
3,093.86	1/10/2017	NM	83.60	NA	NA	3,010.26
	4/7/2017	104.02	83.74	NA	NA	3,010.12
	7/13/2017	NM	83.78	NA	NA	3,010.08
	10/3/2017	NM	83.79	NA	NA	3,010.07
	1/12/2018	NM	83.84	NA	NA	3,010.02
	4/2/2018	NM	83.84	NA	NA	3,010.02
	07/02/18	NM	83.89	NA	NA	3,009.97
	10/1/2018	NM	83.62	NA	NA	3,010.24
	1/9/2019	NM	83.79	NA	NA	3,010.07
	4/9/2019	NM	83.89	NA	NA	3,009.97
	7/9/2019	103.95	83.93	NA	NA	3,009.93
	10/8/2019	NM	83.93	NA	NA	3,009.93
	1/15/2020	NM	83.94	NA	NA	3,009.92
	4/7/2020	104.04	83.89	NA	NA	3,009.97

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
MW-29						
3,098.60	1/10/2017	NM	99.85	NA	NA	2,998.75
	4/7/2017	113.55	99.97	NA	NA	2,998.63
	7/13/2017	NM	100.00	NA	NA	2,998.60
	10/3/2017	NM	99.95	NA	NA	2,998.65
	1/12/2018	NM	100.08	NA	NA	2,998.52
	4/2/2018	NM	100.17	NA	NA	2,998.43
	07/02/18	NM	100.16	NA	NA	2,998.44
	10/1/2018	NM	100.11	NA	NA	2,998.49
	1/7/2019	NM	100.04	NA	NA	2,998.56
	4/5/2019	NM	100.21	NA	NA	2,998.39
	7/9/2019	113.41	100.25	NA	NA	2,998.35
	10/8/2019	NM	100.22	NA	NA	2,998.38
	1/15/2020	NM	100.30	NA	NA	2,998.30
	4/7/2020	113.50	100.31	NA	NA	2,998.29
MW-30						
3,170.95	7/13/2017	NM	103.41	NA	NA	3,067.54
	10/3/2017	NM	103.57	NA	NA	3,067.38
	1/12/2018	NM	103.19	NA	NA	3,067.76
	4/2/2018	NM	103.71	NA	NA	3,067.24
	07/02/18	NM	103.46	NA	NA	3,067.49
	10/1/2018	NM	103.58	NA	NA	3,067.37
	1/8/2019	NM	103.67	NA	NA	3,067.28
	4/10/2019	NM	103.52	NA	NA	3,067.43
	7/10/2019	123.89	103.66	NA	NA	3,067.29
	10/9/2019	NM	103.48	NA	NA	3,067.47
	1/16/2020	NM	103.92	NA	NA	3,067.03
	4/8/2020	123.89	103.67	NA	NA	3,067.28
MW-31						
3,145.41	7/13/2017	NM	94.50	NA	NA	3,050.91
	10/3/2017	NM	94.74	NA	NA	3,050.67
	1/12/2018	NM	94.60	NA	NA	3,050.81
	4/2/2018	NM	94.60	NA	NA	3,050.81
	07/02/18	NM	94.50	NA	NA	3,050.91
	10/1/2018	NM	94.62	NA	NA	3,050.79
	1/8/2019	NM	94.59	NA	NA	3,050.82
	4/5/2019	NM	94.42	NA	NA	3,050.99
	7/9/2019	102.57	94.46	NA	NA	3,050.95
	10/8/2019	NM	94.40	NA	NA	3,051.01
	1/16/2020	NM	94.60	NA	NA	3,050.81
	4/7/2020	102.77	94.44	NA	NA	3,050.97
MW-32						
3,090.28	4/10/2019	94.04	81.18	NA	NA	3,009.10
	7/9/2019	93.44	81.39	NA	NA	3,008.89
	10/8/2019	NM	81.42	NA	NA	3,008.86
	1/15/2020	NM	81.45	NA	NA	3,008.83
	4/8/2020	93.40	81.35	NA	NA	3,008.93
MW-33						
3,080.02	4/10/2019	92.98	76.84	NA	NA	3,003.18
	7/9/2019	92.97	77.00	NA	NA	3,003.02
	10/8/2019	NM	77.09	NA	NA	3,002.93
	1/15/2020	NM	77.09	NA	NA	3,002.93
	4/8/2020	92.58	76.98	NA	NA	3,003.04
MW-34						
3,069.95	4/10/2019	78.04	71.21	NA	NA	2,998.74
	7/9/2019	78.03	71.42	NA	NA	2,998.53
	10/8/2019	NM	71.45	NA	NA	2,998.50
	1/15/2020	NM	71.41	NA	NA	2,998.54
	4/8/2020	78.02	71.45	NA	NA	2,998.50
NM-MW-1						
3,124.90	12/2/2015	NM	72.01	NA	NA	3,052.89
	1/25/2016	106.86	72.01	NA	NA	3,052.89
	7/22/2016	NM	71.90	NA	NA	3,053.00
	1/12/2017	NM	71.73	NA	NA	3,053.17
	4/7/2017	106.36	71.78	NA	NA	3,053.12
	7/13/2017	NM	71.67	NA	NA	3,053.23
	10/3/2017	NM	71.65	NA	NA	3,053.25
	1/12/2018	NM	71.63	NA	NA	3,053.27
	4/2/2018	NM	71.66	NA	NA	3,053.24
	07/02/18	NM	70.65	NA	NA	3,054.25
	10/1/2018	NM	71.71	NA	NA	3,053.19
	1/7/2019	NM	71.63	NA	NA	3,053.27
	4/4/2019	NM	71.61	NA	NA	3,053.29
	7/8/2019	105.91	71.58	NA	NA	3,053.32
	10/7/2019	NM	71.76	NA	NA	3,053.14
	1/13/2020	NM	71.66	NA	NA	3,053.24
	4/6/2020	105.95	71.67	NA	NA	3,053.23

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-2						
3,152.86	12/2/2015	NM	96.14	NA	NA	3,056.72
	1/25/2016	120.55	96.38	NA	NA	3,056.48
	7/22/2016	NM	96.28	NA	NA	3,056.58
	1/12/2017	NM	96.20	NA	NA	3,056.66
	4/7/2017	120.60	96.49	NA	NA	3,056.37
	7/13/2017	NM	96.25	NA	NA	3,056.61
	10/3/2017	NM	96.17	NA	NA	3,056.69
	1/12/2018	NM	96.29	NA	NA	3,056.57
	4/2/2018	NM	96.18	NA	NA	3,056.68
	07/02/18	NM	96.42	NA	NA	3,056.44
	10/1/2018	NM	96.28	NA	NA	3,056.58
	1/7/2019	NM	96.14	NA	NA	3,056.72
	4/4/2019	NM	96.20	NA	NA	3,056.66
	7/8/2019	120.53	96.02	NA	NA	3,056.84
	10/7/2019	NM	96.30	NA	NA	3,056.56
	1/13/2020	NM	96.00	NA	NA	3,056.86
	4/6/2020	120.68	95.98	NA	NA	3,056.88
NM-MW-3						
3,146.86	12/2/2015	NM	91.70	NA	NA	3,055.16
	1/25/2016	105.01	91.80	NA	NA	3,055.06
	7/22/2016	NM	91.81	NA	NA	3,055.05
	1/12/2017	NM	91.75	NA	NA	3,055.11
	4/7/2017	105.28	91.99	NA	NA	3,054.87
	7/13/2017	NM	91.92	NA	NA	3,054.94
	10/3/2017	NM	91.90	NA	NA	3,054.96
	1/12/2018	NM	91.93	NA	NA	3,054.93
	4/2/2018	NM	91.82	NA	NA	3,055.04
	07/02/18	NM	91.88	NA	NA	3,054.98
	10/1/2018	NM	91.78	NA	NA	3,055.08
	1/7/2019	NM	81.68	NA	NA	3,065.18
	4/4/2019	NM	91.70	NA	NA	3,055.16
	7/8/2019	105.31	91.55	NA	NA	3,055.31
	10/7/2019	NM	91.72	NA	NA	3,055.14
	1/13/2020	NM	91.50	NA	NA	3,055.36
	4/6/2020	105.28	91.47	NA	NA	3,055.39
NM-MW-4						
3,154.21	12/2/2015	NM	110.59	NA	NA	3,043.62
	1/25/2016	116.91	110.46	NA	NA	3,043.75
	7/22/2016	NM	110.57	NA	NA	3,043.64
	1/12/2017	NM	110.40	NA	NA	3,043.81
	4/7/2017	117.19	110.52	NA	NA	3,043.69
	7/13/2017	NM	110.50	NA	NA	3,043.71
	10/3/2017	NM	110.52	NA	NA	3,043.69
	1/12/2018	NM	110.48	NA	NA	3,043.73
	4/2/2018	NM	110.55	NA	NA	3,043.66
	07/02/18	NM	110.38	NA	NA	3,043.83
	10/1/2018	NM	110.44	NA	NA	3,043.77
	1/7/2019	NM	110.34	NA	NA	3,043.87
	4/4/2019	NM	110.36	NA	NA	3,043.85
	7/8/2019	117.12	110.27	NA	NA	3,043.94
	10/7/2019	NM	110.35	NA	NA	3,043.86
	1/13/2020	NM	110.23	NA	NA	3,043.98
	4/6/2020	117.11	110.24	NA	NA	3,043.97
NM-MW-5						
3,109.14	12/2/2015	NM	DRY	NA	NA	DRY
	1/25/2016	115.00	99.95	NA	NA	3,009.19
	7/22/2016	NM	99.78	NA	NA	3,009.36
	1/12/2017	NM	99.70	NA	NA	3,009.44
	4/7/2017	114.92	99.66	NA	NA	3,009.48
	7/13/2017	NM	99.80	NA	NA	3,009.34
	10/32017	NM	99.69	NA	NA	3,009.45
	1/12/2018	NM	99.80	NA	NA	3,009.34
	4/2/2018	NM	99.76	NA	NA	3,009.38
	07/02/18	NM	99.82	NA	NA	3,009.32
	10/1/2018	NM	99.89	NA	NA	3,009.25
	1/7/2019	NM	99.61	NA	NA	3,009.53
	4/4/2019	NM	99.74	NA	NA	3,009.40
	7/8/2019	114.43	99.94	NA	NA	3,009.20
	10/7/2019	NM	99.78	NA	NA	3,009.36
	1/13/2020	NM	99.88	NA	NA	3,009.26
	4/6/2020	114.41	99.79	NA	NA	3,009.35
NM-MW-6						
3,093.23	12/2/2015	NM	86.98	NA	NA	3,006.25
	1/25/2016	123.21	86.93	NA	NA	3,006.30
	7/22/2016	NM	87.10	NA	NA	3,006.13
	1/12/2017	NM	87.35	NA	NA	3,005.88
	4/7/2017	123.16	87.42	NA	NA	3,005.81
	7/13/2017	NM	87.47	NA	NA	3,005.76
	10/3/2017	NM	87.47	NA	NA	3,005.76
	1/12/2018	NM	87.57	NA	NA	3,005.66
	4/2/2018	NM	87.53	NA	NA	3,005.70
	07/02/18	NM	87.66	NA	NA	3,005.57
	10/1/2018	NM	87.70	NA	NA	3,005.53
	1/7/2019	NM	87.64	NA	NA	3,005.59
	4/4/2019	NM	87.81	NA	NA	3,005.42
	7/8/2019	121.02	87.77	NA	NA	3,005.46
	10/7/2019	NM	87.89	NA	NA	3,005.34
	1/13/2020	NM	87.83	NA	NA	3,005.40
	4/6/2020	121.07	87.82	NA	NA	3,005.41

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-7						
3,147.67	12/2/2015	NM	96.71	NA	NA	3,050.96
	1/25/2016	105.52	96.79	NA	NA	3,050.88
	7/22/2016	NM	96.91	NA	NA	3,050.76
	1/12/2017	NM	96.80	NA	NA	3,050.87
	4/7/2017	105.89	97.20	NA	NA	3,050.47
	7/13/2017	NM	97.12	NA	NA	3,050.55
	10/3/2017	NM	96.73	NA	NA	3,050.94
	1/12/2018	NM	96.40	NA	NA	3,051.27
	4/2/2018	NM	96.26	NA	NA	3,051.41
	07/02/18	NM	96.13	NA	NA	3,051.54
	10/1/2018	NM	96.07	NA	NA	3,051.60
	1/7/2019	NM	95.88	NA	NA	3,051.79
	4/4/2019	NM	95.91	NA	NA	3,051.76
	7/8/2019	105.92	95.75	NA	NA	3,051.92
	10/7/2019	NM	95.88	NA	NA	3,051.79
	1/13/2020	NM	95.65	NA	NA	3,052.02
	4/6/2020	106.47	95.63	NA	NA	3,052.04
NM-MW-8						
3,138.62	4/7/2017	108.33	98.63	NA	NA	3,039.99
	7/13/2017	NM	98.49	NA	NA	3,040.13
	10/3/2017	NM	98.42	NA	NA	3,040.20
	1/12/2018	NM	98.34	NA	NA	3,040.28
	4/2/2018	NM	98.35	NA	NA	3,040.27
	07/02/18	NM	98.22	NA	NA	3,040.40
	10/1/2018	NM	98.16	NA	NA	3,040.46
	1/7/2019	NM	98.03	NA	NA	3,040.59
	4/4/2019	NM	98.01	NA	NA	3,040.61
	7/8/2019	108.33	97.83	NA	NA	3,040.79
	10/7/2019	NM	97.89	NA	NA	3,040.73
	1/13/2020	NM	97.74	NA	NA	3,040.88
	4/6/2020	108.39	97.72	NA	NA	3,040.90
NM-MW-9						
3,118.18	4/7/2017	96.79	96.73	NA	NA	3,021.45
	7/13/2017	NM	95.58	NA	NA	3,022.60
	10/3/2017	NM	95.37	NA	NA	3,022.81
	1/12/2018	NM	94.94	NA	NA	3,023.24
	4/2/2018	NM	94.71	NA	NA	3,023.47
	07/02/18	NM	94.60	NA	NA	3,023.58
	10/1/2018	NM	94.60	NA	NA	3,023.58
	1/7/2019	NM	94.39	NA	NA	3,023.79
	4/5/2019	NM	97.37	NA	NA	3,020.81
	7/8/2019	96.77	94.21	NA	NA	3,023.97
	10/7/2019	NM	94.17	NA	NA	3,024.01
	1/13/2020	96.79	94.08	NA	NA	3,024.10
	4/6/2020	96.78	93.92	NA	NA	3,024.26
NM-MW-10						
3,066.32	1/10/2017	NM	78.94	NA	NA	2,987.38
	4/7/2017	108.10	79.02	NA	NA	2,987.30
	7/13/2017	NM	79.09	NA	NA	2,987.23
	10/3/2017	NM	79.12	NA	NA	2,987.20
	1/12/2018	NM	79.15	NA	NA	2,987.17
	4/2/2018	NM	79.23	NA	NA	2,987.09
	07/02/18	NM	79.24	NA	NA	2,987.08
	10/1/2018	NM	79.32	NA	NA	2,987.00
	1/7/2019	NM	79.27	NA	NA	2,987.05
	4/4/2019	NM	79.37	NA	NA	2,986.95
	7/8/2019	108.43	79.42	NA	NA	2,986.90
	10/7/2019	NM	79.48	NA	NA	2,986.84
	1/13/2020	NM	79.53	NA	NA	2,986.79
	4/6/2020	108.41	79.55	NA	NA	2,986.77
NM-MW-11						
3,075.44	1/10/2017	NM	150.11	NA	NA	2,925.33
	4/7/2017	163.56	127.16	NA	NA	2,948.28
	7/13/2017	NM	107.66	NA	NA	2,967.78
	10/3/2017	NM	97.78	NA	NA	2,977.66
	1/12/2018	NM	90.89	NA	NA	2,984.55
	4/2/2018	NM	87.75	NA	NA	2,987.69
	07/02/18	NM	86.07	NA	NA	2,989.37
	10/1/2018	NM	84.80	NA	NA	2,990.64
	1/7/2019	NM	83.28	NA	NA	2,992.16
	4/4/2019	NM	82.82	NA	NA	2,992.62
	7/8/2019	163.02	82.94	NA	NA	2,992.50
	10/8/2019	NM	82.97	NA	NA	2,992.47
	1/13/2020	NM	82.58	NA	NA	2,992.86
	4/6/2020	166.05	82.29	NA	NA	2,993.15

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
NM-MW-12						
3,105.47	4/7/2017	98.54	96.70	NA	NA	3,008.77
	7/13/2017	NM	96.72	NA	NA	3,008.75
	10/3/2017	NM	96.69	NA	NA	3,008.78
	1/12/2018	NM	96.67	NA	NA	3,008.80
	4/2/2018	NM	96.71	NA	NA	3,008.76
	07/02/18	NM	96.68	NA	NA	3,008.79
	10/1/2018	NM	96.67	NA	NA	3,008.80
	1/7/2019	NM	96.51	NA	NA	3,008.96
	4/4/2019	NM	96.60	NA	NA	3,008.87
	7/8/2019	98.52	96.61	NA	NA	3,008.86
	10/7/2019	NM	96.64	NA	NA	3,008.83
	1/13/2020	98.55	97.63	NA	NA	3,007.84
	4/6/2020	98.78	96.57	NA	NA	3,008.90
NM-MW-13						
3,051.17	4/7/2017	111.80	84.04	NA	NA	2,967.13
	7/13/2017	NM	84.05	NA	NA	2,967.12
	10/3/2017	NM	84.10	NA	NA	2,967.07
	1/12/2018	NM	84.12	NA	NA	2,967.05
	4/2/2018	NM	84.15	NA	NA	2,967.02
	07/02/18	NM	84.15	NA	NA	2,967.02
	10/1/2018	NM	84.24	NA	NA	2,966.93
	1/7/2019	NM	84.15	NA	NA	2,967.02
	4/4/2019	NM	84.27	NA	NA	2,966.90
	7/8/2019	111.74	84.29	NA	NA	2,966.88
	10/8/2019	NM	84.37	NA	NA	2,966.80
	1/13/2020	NM	84.40	NA	NA	2,966.77
	4/6/2020	111.70	84.39	NA	NA	2,966.78
NM-MW-14						
3,126.82	2/17/2020	97.74	95.82	NA	NA	3,031.00
	4/6/2020	97.67	95.81	NA	NA	3,031.01
NM-MW-15						
3,064.93	2/17/2020	98.06	86.55	NA	NA	2,978.38
	4/6/2020	98.08	86.60	NA	NA	2,978.33
NM-MW-16						
3,085.99	2/17/2020	93.04	DRY	NA	NA	NA
	4/6/2020	93.04	DRY	NA	NA	NA
NM-MW-17						
3,035.70	2/17/2020	86.71	58.34	NA	NA	2,977.36
	4/6/2020	86.70	58.36	NA	NA	2,977.34
NM-MW-20						
3,091.29	2/17/2020	97.76	93.23	NA	NA	2,998.06
	4/6/2020	97.81	93.29	NA	NA	2,998.00
NM-MW-21						
3,047.98	2/17/2020	78.48	76.46	NA	NA	2,971.52
	4/6/2020	78.48	76.50	NA	NA	2,971.48
Non-Remedial Wells						
Livermore						
NM	12/07/06	111.60	95.96	NA	NA	NA
	02/13/07	110.72	95.08	NA	NA	NA
	02/28/07	NM	95.08	NA	NA	NA
	07/30/07	110.72	95.71	NA	NA	NA
	07/09/08	110.72	94.89	NA	NA	NA
	01/28/09	110.81	94.81	NA	NA	NA
	08/28/09	111.11	95.08	NA	NA	NA
	02/19/10	NM	94.70	NA	NA	NA
	08/16/10	NM	94.67	NA	NA	NA
	02/11/11	NM	95.00	NA	NA	NA
	07/31/13	104.21	95.29	NA	NA	NA
	07/16/14	NM	95.85	NA	NA	NA
	01/25/16	104.23	95.20	NA	NA	NA
	07/21/16	NM	95.30	NA	NA	NA
	01/11/17	NM	95.10	NA	NA	NA
	07/13/17	NM	95.17	NA	NA	NA
	10/03/17	NM	95.27	NA	NA	NA
	01/12/18	NM	94.97	NA	NA	NA
	04/02/18	NM	94.97	NA	NA	NA
	07/02/18	NM	95.19	NA	NA	NA
	10/1/2018	NM	95.26	NA	NA	NA
	1/8/2019	NM	95.27	NA	NA	NA
	4/10/2019	NM	95.27	NA	NA	NA
	7/10/2019	NM	95.40	NA	NA	NA
	10/9/2019	NM	95.28	NA	NA	NA
	1/16/2020	NM	95.62	NA	NA	NA
	4/8/2020	99.81	95.42	NA	NA	NA
Pure Water Tower						
3,154.43	06/18/11	137.00	87.30	NA	NA	3,067.13
Pure Water Well						
3,151.80	08/16/12	104.80	88.00	NA	NA	3,063.80
	08/30/13	100.50	88.35	NA	NA	3,063.45
	07/14/15	NM	88.35	NA	NA	3,063.45

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix D

Historical Groundwater Elevation Measurements
Chevron Dollarhide Unit
Dollarhide, Texas

TOC Elevation (ft NAVD)	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Depth to LNAPL (ft below TOC)	LNAPL Thickness (ft)	Groundwater Elevation (ft NAVD)[1]
RRR Ranch Windmill						
NM	08/28/09	117.05	95.05	NA	NA	NA
	07/22/16	NM	94.36	NA	NA	NA
	01/12/17	NM	94.28	NA	NA	NA
	07/13/17	99.61	94.37	NA	NA	NA
	10/03/17	NM	94.34	NA	NA	NA
	01/12/18	NM	94.24	NA	NA	NA
	04/02/18	NM	94.24	NA	NA	NA
	07/02/18	NM	94.14	NA	NA	NA
	10/1/2018	NM	94.08	NA	NA	NA
	1/7/2019	NM	93.95	NA	NA	NA
	4/4/2019	NM	93.95	NA	NA	NA
	7/8/2019	96.44	93.82	NA	NA	NA
	10/7/2019	NM	93.91	NA	NA	NA
	1/13/2020	NM	93.72	NA	NA	NA
	4/6/2020	96.60	93.69	NA	NA	NA
TRAC-4						
NM	NA	NM	NM	NA	NA	NA
TRAC-8						
NM	NA	NM	NM	NA	NA	NA
Wilson Ranch Well						
NM	NA	NM	NM	NA	NA	NA

Notes:
[1] Formula for Adjusted Groundwater Elevation: TOC - Depth to Water + 0.75 (LNAPL thickness).
ft = feet
NAVD = North American Vertical Datum
TOC = top of casing
LNAPL = light non-aqueous phase liquid
NM = Not Measured
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix E
Groundwater Sample Analytical Laboratory Reports

Released to Imaging: 11/21/2023 10:32:34 AM

Certificate of Analysis Summary 650207

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.06.2020 13:23
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	650207-001		650207-002		650207-003		650207-004		650207-005		650207-006	
	Field Id:	RRR Ranch Windmill-W-		43-K-1-MW-W-202301		45-E-3-MW-W-202301		58-B-3-MW-W-202301		MW-29-W-202301		MW-28-W-202301	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.23.2020 10:00		01.23.2020 10:20		01.23.2020 10:30		01.23.2020 10:35		01.23.2020 12:00		01.23.2020 12:15	
Inorganic Anions by EPA 300/300.1	*Extracted:*	01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30	
	Analyzed:	01.27.2020 01:01		01.27.2020 01:07		01.27.2020 01:34		01.27.2020 01:40		01.27.2020 01:14		01.27.2020 02:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1850	25.0	6570	25.0	4260	25.0	1570	25.0	535	5.00	2450	25.0
TDS by SM2540C	*Extracted:*												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3520	5.00	11300	5.00	6880	5.00	2710	5.00	1250	5.00	4100	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650207

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.06.2020 13:23
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650207-007		650207-008		650207-009		650207-010		650207-011		650207-012	
	Field Id:	MW-19-W-202301		MW-18-W-202301		MW-24-W-202301		MW-26-W-202301		MW-10-W-202301		MW-11-W-202301	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.23.2020 12:45		01.23.2020 12:55		01.23.2020 13:05		01.23.2020 13:15		01.23.2020 13:20		01.23.2020 13:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30	
	Analyzed:	01.27.2020 02:07		01.27.2020 02:14		01.27.2020 02:20		01.27.2020 02:27		01.27.2020 02:34		01.27.2020 02:40	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		7540	50.0	21400	100	4470	25.0	1460	25.0	5230	25.0	7760	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		13200	5.00	34800	5.00	8980	5.00	3220	5.00	8580	5.00	12300	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650207

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.06.2020 13:23
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650207-013		650207-014		650207-015		650207-016					
	Field Id:	MW-6-W-202301		MW-31-W-202301		MW-12-W-202301		MW-25-W-202301					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	01.23.2020 13:35		01.23.2020 13:45		01.23.2020 14:00		01.23.2020 14:05					
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10					
	Analyzed:	01.28.2020 10:51		01.28.2020 11:11		01.28.2020 11:17		01.28.2020 11:24					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		488 X	5.00	11700	50.0	12700	50.0	25200	100				
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		1550	5.00	17100	5.00	20600	5.00	36400	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650207

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.06.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.06.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650207**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650207. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650207 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
RRR Ranch Windmill-W-202301	W	01.23.2020 10:00		650207-001
43-K-1-MW-W-202301	W	01.23.2020 10:20		650207-002
45-E-3-MW-W-202301	W	01.23.2020 10:30		650207-003
58-B-3-MW-W-202301	W	01.23.2020 10:35		650207-004
MW-29-W-202301	W	01.23.2020 12:00		650207-005
MW-28-W-202301	W	01.23.2020 12:15		650207-006
MW-19-W-202301	W	01.23.2020 12:45		650207-007
MW-18-W-202301	W	01.23.2020 12:55		650207-008
MW-24-W-202301	W	01.23.2020 13:05		650207-009
MW-26-W-202301	W	01.23.2020 13:15		650207-010
MW-10-W-202301	W	01.23.2020 13:20		650207-011
MW-11-W-202301	W	01.23.2020 13:30		650207-012
MW-6-W-202301	W	01.23.2020 13:35		650207-013
MW-31-W-202301	W	01.23.2020 13:45		650207-014
MW-12-W-202301	W	01.23.2020 14:00		650207-015
MW-25-W-202301	W	01.23.2020 14:05		650207-016

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650207*

Report Date: *02.06.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

02.04.20 per Liz Whiddon, Sample 43-E-3-MW-W-202301 1/23/20 10:30 should be 45-E-3-MW-W-202301

02.06.20 per Liz Whiddon, Sample MW-9-W-202301 1/23/20 12:45 should be MW-19-W-202301. Report revised

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114759 Inorganic Anions by EPA 300/300.1

Lab Sample ID 650207-013 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650207-013, -014, -015, -016.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch Windmill-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-001 Date Collected: 01.23.2020 10:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1850**	25.0	1.05	mg/L	01.27.2020 01:01		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3520**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **43-K-1-MW-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-002 Date Collected: 01.23.2020 10:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6570**	25.0	1.05	mg/L	01.27.2020 01:07		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11300**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-3-MW-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-003 Date Collected: 01.23.2020 10:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4260**	25.0	1.05	mg/L	01.27.2020 01:34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6880**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-3-MW-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-004 Date Collected: 01.23.2020 10:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1570**	25.0	1.05	mg/L	01.27.2020 01:40		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2710**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-005 Date Collected: 01.23.2020 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**535**	5.00	0.210	mg/L	01.27.2020 01:14		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1250**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-006 Date Collected: 01.23.2020 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2450**	25.0	1.05	mg/L	01.27.2020 02:00		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4100**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-007 Date Collected: 01.23.2020 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7540**	50.0	2.10	mg/L	01.27.2020 02:07		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13200**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-008 Date Collected: 01.23.2020 12:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21400**	100	4.21	mg/L	01.27.2020 02:14		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**34800**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-009 Date Collected: 01.23.2020 13:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4470**	25.0	1.05	mg/L	01.27.2020 02:20		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8980**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-010 Date Collected: 01.23.2020 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1460**	25.0	1.05	mg/L	01.27.2020 02:27		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3220**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-011 Date Collected: 01.23.2020 13:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5230**	25.0	1.05	mg/L	01.27.2020 02:34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8580**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-012 Date Collected: 01.23.2020 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7760**	50.0	2.10	mg/L	01.27.2020 02:40		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**12300**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-013 Date Collected: 01.23.2020 13:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**488**	5.00	0.210	mg/L	01.28.2020 10:51	X	10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1550**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-014 Date Collected: 01.23.2020 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11700**	50.0	2.10	mg/L	01.28.2020 11:11		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**17100**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-015 Date Collected: 01.23.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12700**	50.0	2.10	mg/L	01.28.2020 11:17		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**20600**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650207

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650207-016 Date Collected: 01.23.2020 14:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25200**	100	4.21	mg/L	01.28.2020 11:24		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**36400**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650207

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114473 Matrix: Water Date Prep: 01.26.2020
MB Sample Id: 7695190-1-BLK LCS Sample Id: 7695190-1-BKS LCSD Sample Id: 7695190-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.8	99	24.8	99	90-110	0	20	mg/L	01.26.2020 23:28	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Water Date Prep: 01.28.2020
MB Sample Id: 7695334-1-BLK LCS Sample Id: 7695334-1-BKS LCSD Sample Id: 7695334-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	23.9	96	25.2	101	90-110	5	20	mg/L	01.28.2020 10:38	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114473 Matrix: Ground Water Date Prep: 01.26.2020
Parent Sample Id: 650207-005 MS Sample Id: 650207-005 S MSD Sample Id: 650207-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	535	250	779	98	778	97	90-110	0	20	mg/L	01.27.2020 01:20	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114473 Matrix: Ground Water Date Prep: 01.26.2020
Parent Sample Id: 650212-010 MS Sample Id: 650212-010 S MSD Sample Id: 650212-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	712	250	959	99	969	103	90-110	1	20	mg/L	01.26.2020 23:47	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Ground Water Date Prep: 01.28.2020
Parent Sample Id: 650207-013 MS Sample Id: 650207-013 S MSD Sample Id: 650207-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	488	250	692	82	693	82	90-110	0	20	mg/L	01.28.2020 10:58	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Ground Water Date Prep: 01.28.2020
Parent Sample Id: 650208-005 MS Sample Id: 650208-005 S MSD Sample Id: 650208-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	375	250	631	102	636	104	90-110	1	20	mg/L	01.28.2020 12:31	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 650207

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Water
MB Sample Id: 3114423-1-BLK LCS Sample Id: 3114423-1-BKS LCSD Sample Id: 3114423-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	984	98	952	95	80-120	3	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Water
MB Sample Id: 3114424-1-BLK LCS Sample Id: 3114424-1-BKS LCSD Sample Id: 3114424-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	995	100	80-120	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Ground Water
Parent Sample Id: 650207-003 MD Sample Id: 650207-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	6880	6930	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Ground Water
Parent Sample Id: 650212-009 MD Sample Id: 650212-009 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1970	2010	2	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650207-013 MD Sample Id: 650207-013 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1550	1460	6	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650208-008 MD Sample Id: 650208-008 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2180	2140	2	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1202 of 1515

Chain of Custody

Work Order No: 650207

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Phillip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.0	Thermometer ID	DE0	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
RRR Ranch windmill-W-202301	GW	1-23-20	10:00	—	1	X	X	
43-K-1-MW-W-202301		1-23-20	10:20	—	1	X	X	
43-E-3-MW-W-202301		1-23-20	10:30	—	1	X	X	
58-B-3-MW-W-202301		1-23-20	10:35	—	1	X	X	
~~MW-34-W-202301~~		~~1-23-20~~	~~10:50~~	—	1	X	X	Seperate CoC
~~MW-33-W-202301~~		~~1-23-20~~	~~11:05~~	—	1	X	X	Separate CoC
~~MW-32-W-202301~~		~~1-23-20~~	~~11:20~~	—	1	X	X	Separate CoC
MW-29-W-202301		1-23-20	12:00	—	1	X	X	
MW-28-W-202301		1-23-20	12:15	—	1	X	X	
MW-9-W-202301		1-23-20	12:45	—	1	X	X	

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

ANALYSIS REQUEST

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Phillip Cole		1/24/20	2		
3		1225	4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 27 of 29

Page 1203 of 1515

XENCO LABORATORIES

Chain of Custody

Work Order No: 450207

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 2 of 2

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Phillip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.0	Thermometer ID:	D6	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-18-W-202301	GW	1-23-20	12:55	—	1	X	X
MW-24-W-202301		1-23-20	13:05	—	1	X	X
MW-26-W-202301		1-23-20	13:15	—	1	X	X
MW-10-W-202301		1-23-20	1320	—	1	X	X
MW-11-W-202301		1-23-20	13:30	—	1	X	X
MW-6-W-202301		1-23-20	13:35	—	1	X	X
MW-31-W-202301		1-23-20	1345	—	1	X	X
MW-12-W-202301		1-23-20	14:00	—	1	X	X
MW-25-W-202301		1-23-20	14:05	—	1	X	X
					1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/24/20	2		
3		1225	4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 28 of 29

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650207

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.27.2020

Certificate of Analysis Summary 650208

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.18.2020 12:00
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650208-001		650208-002		650208-003		650208-004		650208-005		650208-006	
	Field Id:	Wilson Ranch-W-202201		Smith Residence-W-2022		NM-MW-9-W-202201		MW-3-W-202201		MW-4-W-202201		MW-13-W-202201	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.22.2020 10:25		01.22.2020 11:00		01.22.2020 10:45		01.22.2020 12:00		01.22.2020 12:15		01.22.2020 12:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		02.07.2020 17:15	
	Analyzed:	01.28.2020 11:31		01.28.2020 11:51		01.28.2020 11:57		01.28.2020 12:04		01.28.2020 12:24		02.08.2020 14:47	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1330	10.0	1360	10.0	555	10.0	696	5.00	375	5.00	1810	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		2790	5.00	2550	5.00	1090	5.00	2390	5.00	578	5.00	5110	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650208

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.18.2020 12:00
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650208-007		650208-008		650208-009		650208-010		650208-011		650208-012	
	Field Id:	MW-14-W-202201		MW-15-W-202201		MW-16-W-202201		MW-21-W-202201		MW-17-W-202201		MW-17-WD-202201	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.22.2020 12:40		01.22.2020 12:50		01.22.2020 13:00		01.22.2020 13:10		01.22.2020 13:20		01.22.2020 00:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10	
	Analyzed:	01.28.2020 12:17		01.28.2020 12:44		01.28.2020 12:50		01.28.2020 13:10		01.28.2020 13:17		01.28.2020 13:24	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		1880	25.0	1290	10.0	525	5.00	6900	25.0	9410	50.0	8560	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		3290	5.00	2180	5.00	1270	5.00	10300	5.00	15100	5.00	13600	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650208

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.18.2020 12:00
Project Manager: Debbie Simmons

Analysis Requested														
	Lab Id:	650208-013		650208-014		650208-015		650208-016		650208-017				
	Field Id:	MW-22-W-202201		MW-23-W-202201		MW-30-W-202201		Livermore-WW-202201		MW-5-W-202201				
	Depth:													
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER				
	Sampled:	01.22.2020 13:45		01.22.2020 13:40		01.22.2020 14:00		01.22.2020 14:15		01.22.2020 14:25				
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:10		01.28.2020 10:50				
	Analyzed:	01.28.2020 13:30		01.28.2020 13:37		01.28.2020 13:44		01.28.2020 13:50		01.28.2020 13:30				
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Chloride		11700	50.0	7140	25.0	2520	25.0	2700	25.0	262	5.00			
TDS by SM2540C	***Extracted:***													
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00				
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL			
Total Dissolved Solids		16800	5.00	10400	5.00	4290	5.00	4560	5.00	964	5.00			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650208

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.18.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.18.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650208**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650208. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650208 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Wilson Ranch-W-202201	W	01.22.2020 10:25		650208-001
Smith Residence-W-202201	W	01.22.2020 11:00		650208-002
NM-MW-9-W-202201	W	01.22.2020 10:45		650208-003
MW-3-W-202201	W	01.22.2020 12:00		650208-004
MW-4-W-202201	W	01.22.2020 12:15		650208-005
MW-13-W-202201	W	01.22.2020 12:30		650208-006
MW-14-W-202201	W	01.22.2020 12:40		650208-007
MW-15-W-202201	W	01.22.2020 12:50		650208-008
MW-16-W-202201	W	01.22.2020 13:00		650208-009
MW-21-W-202201	W	01.22.2020 13:10		650208-010
MW-17-W-202201	W	01.22.2020 13:20		650208-011
MW-17-WD-202201	W	01.22.2020 00:00		650208-012
MW-22-W-202201	W	01.22.2020 13:45		650208-013
MW-23-W-202201	W	01.22.2020 13:40		650208-014
MW-30-W-202201	W	01.22.2020 14:00		650208-015
Livermore-WW-202201	W	01.22.2020 14:15		650208-016
MW-5-W-202201	W	01.22.2020 14:25		650208-017

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650208*

Report Date: *02.18.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

02.18.20: Report revised, 650208-006 requested to be double checked for chloride. Reporting reanalysis result.

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Ranch-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-001 Date Collected: 01.22.2020 10:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1330**	10.0	0.421	mg/L	01.28.2020 11:31		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2790**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith Residence-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-002 Date Collected: 01.22.2020 11:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1360**	10.0	0.421	mg/L	01.28.2020 11:51		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2550**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-003 Date Collected: 01.22.2020 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**555**	10.0	0.421	mg/L	01.28.2020 11:57		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1090**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-004 Date Collected: 01.22.2020 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**696**	5.00	0.210	mg/L	01.28.2020 12:04		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2390**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-005 Date Collected: 01.22.2020 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**375**	5.00	0.210	mg/L	01.28.2020 12:24		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**578**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-006 Date Collected: 01.22.2020 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 02.07.2020 17:15

Seq Number: 3115963

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1810**	25.0	1.05	mg/L	02.08.2020 14:47		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**5110**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-007 Date Collected: 01.22.2020 12:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1880**	25.0	1.05	mg/L	01.28.2020 12:17		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3290**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-008 Date Collected: 01.22.2020 12:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1290**	10.0	0.421	mg/L	01.28.2020 12:44		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2180**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-009 Date Collected: 01.22.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**525**	5.00	0.210	mg/L	01.28.2020 12:50		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1270**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-010 Date Collected: 01.22.2020 13:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6900**	25.0	1.05	mg/L	01.28.2020 13:10		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10300**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-011 Date Collected: 01.22.2020 13:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9410**	50.0	2.10	mg/L	01.28.2020 13:17		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**15100**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-WD-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-012 Date Collected: 01.22.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8560**	50.0	2.10	mg/L	01.28.2020 13:24		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13600**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-013 Date Collected: 01.22.2020 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11700**	50.0	2.10	mg/L	01.28.2020 13:30		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**16800**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-014 Date Collected: 01.22.2020 13:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7140**	25.0	1.05	mg/L	01.28.2020 13:37		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114425

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10400**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-015 Date Collected: 01.22.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2520**	25.0	1.05	mg/L	01.28.2020 13:44		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114425

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4290**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-WW-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-016 Date Collected: 01.22.2020 14:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:10

Seq Number: 3114759

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2700**	25.0	1.05	mg/L	01.28.2020 13:50		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114425

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4560**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650208

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-202201** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650208-017 Date Collected: 01.22.2020 14:25

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:50

Seq Number: 3114762

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**262**	5.00	0.210	mg/L	01.28.2020 13:30		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114425

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**964**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650208

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Water Date Prep: 01.28.2020
MB Sample Id: 7695334-1-BLK LCS Sample Id: 7695334-1-BKS LCSD Sample Id: 7695334-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	23.9	96	25.2	101	90-110	5	20	mg/L	01.28.2020 10:38	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Water Date Prep: 01.28.2020
MB Sample Id: 7695338-1-BLK LCS Sample Id: 7695338-1-BKS LCSD Sample Id: 7695338-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	25.3	101	26.4	106	90-110	4	20	mg/L	01.28.2020 11:59	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3115963 Matrix: Water Date Prep: 02.07.2020
MB Sample Id: 7696259-1-BLK LCS Sample Id: 7696259-1-BKS LCSD Sample Id: 7696259-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	25.1	100	25.1	100	90-110	0	20	mg/L	02.08.2020 14:14	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Ground Water Date Prep: 01.28.2020
Parent Sample Id: 650207-013 MS Sample Id: 650207-013 S MSD Sample Id: 650207-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	488	250	692	82	693	82	90-110	0	20	mg/L	01.28.2020 10:58	X

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114759 Matrix: Ground Water Date Prep: 01.28.2020
Parent Sample Id: 650208-005 MS Sample Id: 650208-005 S MSD Sample Id: 650208-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	375	250	631	102	636	104	90-110	1	20	mg/L	01.28.2020 12:31	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Drinking Water Date Prep: 01.28.2020
Parent Sample Id: 650404-001 MS Sample Id: 650404-001 S MSD Sample Id: 650404-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.6	25.0	47.2	106	46.6	104	90-110	1	20	mg/L	01.28.2020 12:30	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 650208

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Drinking Water Date Prep: 01.28.2020
Parent Sample Id: 650406-001 MS Sample Id: 650406-001 S MSD Sample Id: 650406-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.97	25.0	32.1	109	32.1	109	90-110	0	20	mg/L	01.28.2020 15:31	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3115963 Matrix: Water Date Prep: 02.07.2020
Parent Sample Id: 651498-001 MS Sample Id: 651498-001 S MSD Sample Id: 651498-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16200	5000	20300	82	20400	84	90-110	0	20	mg/L	02.08.2020 14:34	X

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Water
MB Sample Id: 3114424-1-BLK LCS Sample Id: 3114424-1-BKS LCSD Sample Id: 3114424-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	995	100	80-120	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114425 Matrix: Water
MB Sample Id: 3114425-1-BLK LCS Sample Id: 3114425-1-BKS LCSD Sample Id: 3114425-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1020	102	1010	101	80-120	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650207-013 MD Sample Id: 650207-013 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1550	1460	6	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650208-008 MD Sample Id: 650208-008 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2180	2140	2	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 650208

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**

Seq Number: 3114425 Matrix: Ground Water

Parent Sample Id: 650209-004 MD Sample Id: 650209-004 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1020	1030	1	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Page 1233 of 1515

Chain of Custody

Work Order No: 450208

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Matthew Laughlin; Phillip Cole	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.6	Temp Blank: Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	D8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
Wilson Ranch-W-202201	GW	1/22/20	1025	-	1	X	X
Smith Residence-W-202201	GW	1/22/20	1100	-	1	X	X
NM-MW-9-W-202201	GW	1/22/20	1045	-	1	X	X
MW-3-W-202201	GW	1/22/20	1200	-	1	X	X
MW-4-W-202201	GW	1/22/20	1215	-	1	X	X
MW-13-W-202201	GW	1/22/20	1230	-	1	X	X
MW-14-W-202201	GW	1/22/20	1240	-	1	X	X
MW-15-W-202201	GW	1/22/20	1250	-	1	X	X
MW-16-W-202201	GW	1/22/20	1300	-	1	X	X
MW-21-W-202201	GW	1/22/20	1310	-	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/24/20 1200	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 29 of 31

Page 1234 of 1515

Chain of Custody

Work Order No: 655208

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	X
P.O. Number:		Rush:	
Sampler's Name:	Matthew Laughlin; Phillip Cole	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.4	Thermometer ID	VE	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0	
Sample Custody Seals:	Yes No ~~N/A~~	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Work Order Notes / Sample Comments
MW-17-W-202201	GW	1/22/20	1320	—	1	X	X	
MW-17-WD-202201	GW	1/22/20	~	—	1	X	X	
MW-22-W-202201	GW	1/22/20	1345	~	1	X	X	1345 Sample Time
MW-23-W-202201	GW	1/22/20	1340	—	1	X	X	
MW-30-W-202201	GW	1/22/20	1400	—	1	X	X	
Livermore-WW-202201	GW	1/22/20	1415	—	1	X	X	

TAT starts the day recevied by the lab, if received by 4:30pm

ANALYSIS REQUEST

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.001
Page 30 of 31

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650208

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**Yes**	received sample ID MW-5-W-202201 1/22/2020 14:25, added at end of work order and logged in for Chloride/TDS.
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.27.2020

Certificate of Analysis Summary 650209

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:19
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650209-001		650209-002		650209-003		650209-004					
	Field Id:	MW-34-W-202301		MW-33-W-202301		MW-32-W-202301		MW-33-WD-202301					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	01.23.2020 10:50		01.23.2020 11:05		01.23.2020 11:20		01.23.2020 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.28.2020 10:50		01.28.2020 10:50		01.28.2020 10:50		01.28.2020 10:50					
	Analyzed:	01.28.2020 13:40		01.28.2020 13:50		01.28.2020 14:00		01.28.2020 14:30					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		73.3	2.50	185	5.00	327	5.00	168	5.00				
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		606	5.00	1010	5.00	1080	5.00	1020	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650209

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.04.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.04.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650209**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650209. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650209 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650209

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-34-W-202301	W	01.23.2020 10:50		650209-001
MW-33-W-202301	W	01.23.2020 11:05		650209-002
MW-32-W-202301	W	01.23.2020 11:20		650209-003
MW-33-WD-202301	W	01.23.2020 00:00		650209-004

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650209*

Report Date: *02.04.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 650209

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-34-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650209-001 Date Collected: 01.23.2020 10:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:50

Seq Number: 3114762

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**73.3**	2.50	0.105	mg/L	01.28.2020 13:40		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**606**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650209

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650209-002 Date Collected: 01.23.2020 11:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:50

Seq Number: 3114762

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**185**	5.00	0.210	mg/L	01.28.2020 13:50		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1010**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650209

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-W-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650209-003 Date Collected: 01.23.2020 11:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:50

Seq Number: 3114762

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**327**	5.00	0.210	mg/L	01.28.2020 14:00		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114424

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1080**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650209

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-WD-202301** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650209-004 Date Collected: 01.23.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.28.2020 10:50

Seq Number: 3114762

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**168**	5.00	0.210	mg/L	01.28.2020 14:30		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114425

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1020**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650209

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Water Date Prep: 01.28.2020
MB Sample Id: 7695338-1-BLK LCS Sample Id: 7695338-1-BKS LCSD Sample Id: 7695338-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	25.3	101	26.4	106	90-110	4	20	mg/L	01.28.2020 11:59	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Drinking Water Date Prep: 01.28.2020
Parent Sample Id: 650404-001 MS Sample Id: 650404-001 S MSD Sample Id: 650404-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.6	25.0	47.2	106	46.6	104	90-110	1	20	mg/L	01.28.2020 12:30	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3114762 Matrix: Drinking Water Date Prep: 01.28.2020
Parent Sample Id: 650406-001 MS Sample Id: 650406-001 S MSD Sample Id: 650406-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.97	25.0	32.1	109	32.1	109	90-110	0	20	mg/L	01.28.2020 15:31	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Water
MB Sample Id: 3114424-1-BLK LCS Sample Id: 3114424-1-BKS LCSD Sample Id: 3114424-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	987	99	995	100	80-120	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114425 Matrix: Water
MB Sample Id: 3114425-1-BLK LCS Sample Id: 3114425-1-BKS LCSD Sample Id: 3114425-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1020	102	1010	101	80-120	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650207-013 MD Sample Id: 650207-013 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1550	1460	6	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

QC Summary 650209

GHD Services, INC- Midland

Dollarhide

Analytical Method: **TDS by SM2540C**
Seq Number: 3114424 Matrix: Ground Water
Parent Sample Id: 650208-008 MD Sample Id: 650208-008 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	2180	2140	2	10	mg/L	01.25.2020 16:00	

Analytical Method: **TDS by SM2540C**
Seq Number: 3114425 Matrix: Ground Water
Parent Sample Id: 650209-004 MD Sample Id: 650209-004 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1020	1030	1	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 1248 of 1515

Chain of Custody

Work Order No: 605209

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Phillip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.0	Thermometer ID	DE	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Work Order Notes / Sample Comments
MW-34-W-202301	GW	1-23-20	10:50	—	1	X	X	
MW-33-W-202301	GW	1-23-20	11:05	—	1	X	X	
MW-32-W-202301	GW	1-23-20	11:20	—	1	X	X	
MW-33-WD-202301	GW	1-23-20	—	—	1	X	X	Dup -3

Work Order Notes: TAT starts the day recevied by the lab, if received by 4:30pm

ANALYSIS REQUEST

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/24/20	2		
3		1323	4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 13 of 14

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650209

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.27.2020

Certificate of Analysis Summary 650210

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:22
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	650210-001		650210-002		650210-003					
	Field Id:	NM-MW-13-W-202001		NM-MW-11-W-202001		NM-MW-13-WD-20200					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	01.20.2020 12:50		01.20.2020 13:15		01.20.2020 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50					
	Analyzed:	01.26.2020 20:22		01.26.2020 20:28		01.26.2020 20:35					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		203	5.00	161	5.00	205	5.00				
TDS by SM2540C	***Extracted:***										
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		1060	5.00	1870	5.00	1060	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650210

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.04.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.04.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650210**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650210. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650210 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650210

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-13-W-202001	W	01.20.2020 12:50		650210-001
NM-MW-11-W-202001	W	01.20.2020 13:15		650210-002
NM-MW-13-WD-202001	W	01.20.2020 00:00		650210-003

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650210*

Report Date: *02.04.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 650210

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-202001** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650210-001 Date Collected: 01.20.2020 12:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**203**	5.00	0.210	mg/L	01.26.2020 20:22		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1060**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650210

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-202001** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650210-002 Date Collected: 01.20.2020 13:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**161**	5.00	0.210	mg/L	01.26.2020 20:28		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1870**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650210

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-WD-202001** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650210-003 Date Collected: 01.20.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**205**	5.00	0.210	mg/L	01.26.2020 20:35		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1060**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650210

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
MB Sample Id: 7695189-1-BLK — LCS Sample Id: 7695189-1-BKS — LCSD Sample Id: 7695189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.0779	25.0	25.4	102	25.2	101	90-110	1	20	mg/L	01.26.2020 19:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-006 — MS Sample Id: 650211-006 S — MSD Sample Id: 650211-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	241	125	369	102	368	102	90-110	0	20	mg/L	01.26.2020 20:08	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-007 — MS Sample Id: 650211-007 S — MSD Sample Id: 650211-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.1	125	175	105	175	105	90-110	0	20	mg/L	01.26.2020 21:41	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Water
MB Sample Id: 3114422-1-BLK — LCS Sample Id: 3114422-1-BKS — LCSD Sample Id: 3114422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	954	95	988	99	80-120	4	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Ground Water
Parent Sample Id: 650210-001 — MD Sample Id: 650210-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1060	1080	2	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Water
Parent Sample Id: 650211-009 — MD Sample Id: 650211-009 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4410	4390	0	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 1260 of 1515

Chain of Custody

Work Order No: 650210

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Page 1 of 1

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Philip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.0	Thermometer ID:	R8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:		
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Work Order Notes / Sample Comments
NM-MW-13-W-202001	GW	1-20-20	12:50	—	1	X	X	
NM-MW-11-W-202001	GW	1-20-20	13:15	—	1	X	X	
NM-MW-13-WD-202001	GW	1-20-20	—	—	1	X	X	Dup-1

ANALYSIS REQUEST

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/21/20 1225	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 11 of 12

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650210

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.27.2020

Certificate of Analysis Summary 650211

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:26
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650211-001		650211-002		650211-003		650211-004		650211-005		650211-006	
	Field Id:	NM-MW-10-W-202001		NM-MW-5-W-202001		NM-MW-6-W-202001		NM-MW-1-W-202001		NM-MW-2-W-202001		NM-MW-3-W-202001	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	01.20.2020 13:30		01.20.2020 13:45		01.20.2020 13:50		01.20.2020 14:00		01.20.2020 14:15		01.20.2020 14:20	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50	
	Analyzed:	01.26.2020 20:42		01.26.2020 21:01		01.26.2020 21:08		01.26.2020 21:15		01.26.2020 21:21		01.26.2020 20:02	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		357	5.00	152	5.00	145	2.50	286	5.00	643	5.00	241	2.50
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1620	5.00	1240	5.00	750	5.00	1390	5.00	1240	5.00	649	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650211

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:26
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	650211-007		650211-008		650211-009					
	Field Id:	NM-MW-4-W-202001		NM-MW-8-W-202001		NM-MW-7-W-202001					
	Depth:										
	Matrix:	WATER		WATER		WATER					
	Sampled:	01.20.2020 14:30		01.20.2020 14:45		01.20.2020 15:10					
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50					
	Analyzed:	01.26.2020 21:35		01.26.2020 21:28		01.26.2020 21:55					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		44.1	2.50	6220	25.0	2450	25.0				
TDS by SM2540C	***Extracted:***										
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		388	5.00	10400	5.00	4410	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650211

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.04.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.04.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650211**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650211. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650211 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-10-W-202001	W	01.20.2020 13:30		650211-001
NM-MW-5-W-202001	W	01.20.2020 13:45		650211-002
NM-MW-6-W-202001	W	01.20.2020 13:50		650211-003
NM-MW-1-W-202001	W	01.20.2020 14:00		650211-004
NM-MW-2-W-202001	W	01.20.2020 14:15		650211-005
NM-MW-3-W-202001	W	01.20.2020 14:20		650211-006
NM-MW-4-W-202001	W	01.20.2020 14:30		650211-007
NM-MW-8-W-202001	W	01.20.2020 14:45		650211-008
NM-MW-7-W-202001	W	01.20.2020 15:10		650211-009

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650211*

Report Date: *02.04.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

02.04.20 per Liz Whiddon, NM-MW-5-W-202001 01/20/20 13:50 should be NM-MW-6-W-202001

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-001 Date Collected: 01.20.2020 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**357**	5.00	0.210	mg/L	01.26.2020 20:42		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1620**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-002 Date Collected: 01.20.2020 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**152**	5.00	0.210	mg/L	01.26.2020 21:01		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-003 Date Collected: 01.20.2020 13:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**145**	2.50	0.105	mg/L	01.26.2020 21:08		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**750**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-004 Date Collected: 01.20.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**286**	5.00	0.210	mg/L	01.26.2020 21:15		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1390**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-005 Date Collected: 01.20.2020 14:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**643**	5.00	0.210	mg/L	01.26.2020 21:21		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1240**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-006 Date Collected: 01.20.2020 14:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**241**	2.50	0.105	mg/L	01.26.2020 20:02		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**649**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-007 Date Collected: 01.20.2020 14:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**44.1**	2.50	0.105	mg/L	01.26.2020 21:35		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**388**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-008 Date Collected: 01.20.2020 14:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6220**	25.0	1.05	mg/L	01.26.2020 21:28		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10400**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650211

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-202001** Matrix: Water Date Received:01.24.2020 12:23

Lab Sample Id: 650211-009 Date Collected: 01.20.2020 15:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2450**	25.0	1.05	mg/L	01.26.2020 21:55		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4410**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650211

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
MB Sample Id: 7695189-1-BLK — LCS Sample Id: 7695189-1-BKS — LCSD Sample Id: 7695189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.0779	25.0	25.4	102	25.2	101	90-110	1	20	mg/L	01.26.2020 19:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-006 — MS Sample Id: 650211-006 S — MSD Sample Id: 650211-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	241	125	369	102	368	102	90-110	0	20	mg/L	01.26.2020 20:08	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-007 — MS Sample Id: 650211-007 S — MSD Sample Id: 650211-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.1	125	175	105	175	105	90-110	0	20	mg/L	01.26.2020 21:41	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Water
MB Sample Id: 3114422-1-BLK — LCS Sample Id: 3114422-1-BKS — LCSD Sample Id: 3114422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	954	95	988	99	80-120	4	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Ground Water
Parent Sample Id: 650210-001 — MD Sample Id: 650210-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1060	1080	2	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 — Matrix: Water
Parent Sample Id: 650211-009 — MD Sample Id: 650211-009 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4410	4390	0	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1279 of 1515

Chain of Custody

Work Order No: 605211

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007 Email:		Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Matthew Laughlin; Phillip Cole	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.9	Thermometer ID:	126
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS		Sample Comments
NM-MW-13-W-202001	GW	1/20/20	1250	-	1	X	X	ML	
NM-MW-13-WD-202001	GW	1/20/20		-	1	X	X	ML	Dup-1
NM-MW-11-W-202001	GW	1/20/20	1315	-	1	X	X	ML	
NM-MW-10-W-202001	GW	1/20/20	1330	-	1	X	X		
NM-MW-5-W-202001	GW	1/20/20	1345	-	1	X	X		
NM-MW-5-W-202001	GW	1/20/20	1350	-	1	X	X		
NM-MW-1-W-202001	GW	1/20/20	1400	-	1	X	X		
NM-MW-2-W-202001	GW	1/20/20	1415	-	1	X	X		
NM-MW-3-W-202001	GW	1/20/20	1420	-	1	X	X		
NM-MW-4-W-202001	GW	1/20/20	1430	-	1	X	X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1/21/20 1225	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 18 of 20

Page 1280 of 1515

Chain of Custody

Work Order No: 605211

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone: 225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Matthew Laughlin, Phillip Cole	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.0	Thermometer ID	BE
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0
Sample Custody Seals:	Yes No N/A	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-8-W-202001	GW	1/20/20	1445	-	1	X	X
NM-MW-7-W-202001	GW	1/20/20	1510	-	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 19 of 20

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650211

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.27.2020

Certificate of Analysis Summary 650212

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:28
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650212-001		650212-002		650212-003		650212-004		650212-005		650212-006	
	Field Id:	44-J-3-MW-W-202101		44-J-4-MW-W-202101		44-J-5-MW-W-202101		44-J-1-MW-W-202101		44-J-2-MW-W-202101		44-I-1-MW-W-202101	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.21.2020 10:00		01.21.2020 10:10		01.21.2020 10:20		01.21.2020 10:30		01.21.2020 10:40		01.21.2020 10:45	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50		01.26.2020 18:50	
	Analyzed:	01.26.2020 22:01		01.27.2020 08:17		01.26.2020 22:28		01.26.2020 22:34		01.26.2020 22:41		01.26.2020 22:48	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		4720	25.0	6120	25.0	4210	25.0	5020	25.0	3830	25.0	3540	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		7720	5.00	10500	5.00	6780	5.00	8150	5.00	6420	5.00	6040	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650212

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:28
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650212-007		650212-008		650212-009		650212-010		650212-011		650212-012	
	Field Id:	45-FF-MW-W-202101		45-E-2-MW-W-202101		45-E-1-MW-W-202101		45-F-1-MW-W-202101		MW-20-W-202101		MW-27-W-202101	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	01.21.2020 10:55		01.21.2020 11:05		01.21.2020 11:20		01.21.2020 11:30		01.21.2020 11:50		01.21.2020 12:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 18:50		01.26.2020 18:50		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30	
	Analyzed:	01.26.2020 22:54		01.26.2020 23:01		01.27.2020 00:01		01.26.2020 23:41		01.27.2020 00:07		01.27.2020 00:14	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		4320	25.0	1660	25.0	1050	10.0	712	5.00	1330	10.0	2420	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		7510	5.00	3060	5.00	1970	5.00	1270	5.00	2440	5.00	4230	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 650212

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 01.24.2020 12:23
Report Date: 02.04.2020 16:28
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	650212-013		650212-014		650212-015		650212-016					
	Field Id:	MW-8-W-202101		MW-9-W-202101		58-B-2-MW-W-202101		58-B-1-MW-W-202101					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	01.21.2020 12:10		01.21.2020 12:20		01.21.2020 12:30		01.21.2020 12:45					
Inorganic Anions by EPA 300/300.1	***Extracted:***	01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30		01.26.2020 19:30					
	Analyzed:	01.27.2020 00:21		01.27.2020 00:41		01.27.2020 00:47		01.27.2020 00:54					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		967	10.0	2740	25.0	3770	25.0	6590	25.0				
TDS by SM2540C	***Extracted:***												
	Analyzed:	01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00		01.25.2020 16:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		2540	5.00	4010	5.00	6280	5.00	10200	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 650212

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.04.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.04.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **650212**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650212. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650212 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
44-J-3-MW-W-202101	W	01.21.2020 10:00		650212-001
44-J-4-MW-W-202101	W	01.21.2020 10:10		650212-002
44-J-5-MW-W-202101	W	01.21.2020 10:20		650212-003
44-J-1-MW-W-202101	W	01.21.2020 10:30		650212-004
44-J-2-MW-W-202101	W	01.21.2020 10:40		650212-005
44-I-1-MW-W-202101	W	01.21.2020 10:45		650212-006
45-FF-MW-W-202101	W	01.21.2020 10:55		650212-007
45-E-2-MW-W-202101	W	01.21.2020 11:05		650212-008
45-E-1-MW-W-202101	W	01.21.2020 11:20		650212-009
45-F-1-MW-W-202101	W	01.21.2020 11:30		650212-010
MW-20-W-202101	W	01.21.2020 11:50		650212-011
MW-27-W-202101	W	01.21.2020 12:00		650212-012
MW-8-W-202101	W	01.21.2020 12:10		650212-013
MW-9-W-202101	W	01.21.2020 12:20		650212-014
58-B-2-MW-W-202101	W	01.21.2020 12:30		650212-015
58-B-1-MW-W-202101	W	01.21.2020 12:45		650212-016

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *650212*

Report Date: *02.04.2020*
Date Received: *01.24.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-3-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-001 Date Collected: 01.21.2020 10:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4720**	25.0	1.05	mg/L	01.26.2020 22:01		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7720**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-4-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-002 Date Collected: 01.21.2020 10:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6120**	25.0	1.05	mg/L	01.27.2020 08:17		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10500**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-5-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-003 Date Collected: 01.21.2020 10:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4210**	25.0	1.05	mg/L	01.26.2020 22:28		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6780**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-1-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-004 Date Collected: 01.21.2020 10:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5020**	25.0	1.05	mg/L	01.26.2020 22:34		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8150**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-J-2-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-005 Date Collected: 01.21.2020 10:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3830**	25.0	1.05	mg/L	01.26.2020 22:41		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6420**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **44-I-1-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-006 Date Collected: 01.21.2020 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3540**	25.0	1.05	mg/L	01.26.2020 22:48		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6040**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-FF-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-007 Date Collected: 01.21.2020 10:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4320**	25.0	1.05	mg/L	01.26.2020 22:54		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7510**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-2-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-008 Date Collected: 01.21.2020 11:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 18:50

Seq Number: 3114469

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1660**	25.0	1.05	mg/L	01.26.2020 23:01		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114422

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3060**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-E-1-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-009 Date Collected: 01.21.2020 11:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1050**	10.0	0.421	mg/L	01.27.2020 00:01		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1970**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **45-F-1-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-010 Date Collected: 01.21.2020 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**712**	5.00	0.210	mg/L	01.26.2020 23:41		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1270**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-011 Date Collected: 01.21.2020 11:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1330**	10.0	0.421	mg/L	01.27.2020 00:07		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2440**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-012 Date Collected: 01.21.2020 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2420**	25.0	1.05	mg/L	01.27.2020 00:14		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4230**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-013 Date Collected: 01.21.2020 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**967**	10.0	0.421	mg/L	01.27.2020 00:21		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2540**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-014 Date Collected: 01.21.2020 12:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2740**	25.0	1.05	mg/L	01.27.2020 00:41		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4010**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-2-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-015 Date Collected: 01.21.2020 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3770**	25.0	1.05	mg/L	01.27.2020 00:47		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**6280**	5.00	5.00	mg/L	01.25.2020 16:00		1

Certificate of Analytical Results 650212

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **58-B-1-MW-W-202101** Matrix: Ground Water Date Received:01.24.2020 12:23

Lab Sample Id: 650212-016 Date Collected: 01.21.2020 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 01.26.2020 19:30

Seq Number: 3114473

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6590**	25.0	1.05	mg/L	01.27.2020 00:54		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3114423

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10200**	5.00	5.00	mg/L	01.25.2020 16:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650212

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
MB Sample Id: 7695189-1-BLK — LCS Sample Id: 7695189-1-BKS — LCSD Sample Id: 7695189-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.0779	25.0	25.4	102	25.2	101	90-110	1	20	mg/L	01.26.2020 19:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114473 — Matrix: Water — Date Prep: 01.26.2020
MB Sample Id: 7695190-1-BLK — LCS Sample Id: 7695190-1-BKS — LCSD Sample Id: 7695190-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.8	99	24.8	99	90-110	0	20	mg/L	01.26.2020 23:28	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-006 — MS Sample Id: 650211-006 S — MSD Sample Id: 650211-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	241	125	369	102	368	102	90-110	0	20	mg/L	01.26.2020 20:08	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114469 — Matrix: Water — Date Prep: 01.26.2020
Parent Sample Id: 650211-007 — MS Sample Id: 650211-007 S — MSD Sample Id: 650211-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	44.1	125	175	105	175	105	90-110	0	20	mg/L	01.26.2020 21:41	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114473 — Matrix: Ground Water — Date Prep: 01.26.2020
Parent Sample Id: 650207-005 — MS Sample Id: 650207-005 S — MSD Sample Id: 650207-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	535	250	779	98	778	97	90-110	0	20	mg/L	01.27.2020 01:20	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3114473 — Matrix: Ground Water — Date Prep: 01.26.2020
Parent Sample Id: 650212-010 — MS Sample Id: 650212-010 S — MSD Sample Id: 650212-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	712	250	959	99	969	103	90-110	1	20	mg/L	01.26.2020 23:47	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 650212

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3114422 Matrix: Water
MB Sample Id: 3114422-1-BLK LCS Sample Id: 3114422-1-BKS LCSD Sample Id: 3114422-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	954	95	988	99	80-120	4	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Water
MB Sample Id: 3114423-1-BLK LCS Sample Id: 3114423-1-BKS LCSD Sample Id: 3114423-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	984	98	952	95	80-120	3	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 Matrix: Ground Water
Parent Sample Id: 650210-001 MD Sample Id: 650210-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1060	1080	2	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114422 Matrix: Water
Parent Sample Id: 650211-009 MD Sample Id: 650211-009 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4410	4390	0	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Ground Water
Parent Sample Id: 650207-003 MD Sample Id: 650207-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	6880	6930	1	10	mg/L	01.25.2020 16:00	

Analytical Method: TDS by SM2540C
Seq Number: 3114423 Matrix: Ground Water
Parent Sample Id: 650212-009 MD Sample Id: 650212-009 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1970	2010	2	10	mg/L	01.25.2020 16:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1308 of 1515

Chain of Custody

Work Order No: 050212

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone: 225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine ☒	
P.O. Number:		Rush:	
Sampler's Name:	Phillip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.0	Thermometer ID	78	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No ~~N/A~~	Correction Factor:	0	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
44-J-3-MW-W-202101	GW	1-21-20	10:00	—	1	X	X
44-J-4-MW-W-202101		1-21-20	10:10	—	1	X	X
44-J-5-MW-W-202101		1-21-20	10:20	—	1	X	X
44-J-1-MW-W-202101		1-21-20	10:30	—	1	X	X
44-J-2-MW-W-202101		1-21-20	10:40	—	1	X	X
44-I-1-MW-W-202101		1-21-20	10:45	—	1	X	X
45-FF-MW-W-202101		1-21-20	10:55	—	1	X	X
45-E-2-MW-202101		1-21-20	11:05	—	1	X	X
45-E-1-MW-202101		1-21-20	11:20	—	1	X	X
45-F-1-MW-202101	↓	1-21-20	11:30	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Phillip Cole		1/21/20	2		
3		1225	4		
5			6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 27 of 29

Page 1309 of 1515

Chain of Custody

Work Order No: 19Sa210

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone: 225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☑ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	SSOW C5527C-CB-Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Phillip Cole / Matthew Laughlin	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	0.4	Thermometer ID	D8	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No ~~N/A~~	Correction Factor:		
Sample Custody Seals:	Yes No ~~N/A~~	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-20-W-202101	GW	1-21-20	11:50	—	1	X	X
MW-27-W-202101		1-21-20	12:00	—	1	X	X
MW-8-W-202101		1-21-20	12:10	—	1	X	X
MW-9-W-202101		1-21-20	12:20	—	1	X	X
SB-B-2-MW-W-202101		1-21-20	12:30	—	1	X	X
SB-B-1-MW-W-202101		1-21-20	12:45	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 28 of 29

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 01.24.2020 12.23.00 PM

Work Order #: 650212

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.6
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 01.24.2020

Checklist reviewed by: Debbie Simmons — Date: 01.30.2020

Certificate of Analysis Summary 652790

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Tue 02.18.2020 14:45
Report Date: 02.25.2020 17:12
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	652790-001		652790-002		652790-003		652790-004		652790-005	
	Field Id:	NM-MW-15-W-201802		NM-MW-17-W-201802		NM-MW-20-W-201802		NM-MW-21-W-201802		NM-MW-21-WR-20180	
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	02.18.2020 11:15		02.18.2020 11:40		02.18.2020 12:10		02.18.2020 12:35		02.18.2020 12:40	
Inorganic Anions by EPA 300/300.1	***Extracted:***	02.19.2020 12:50		02.19.2020 12:50		02.19.2020 12:50		02.19.2020 12:50		02.19.2020 12:50	
	Analyzed:	02.19.2020 14:44		02.19.2020 14:49		02.19.2020 14:54		02.19.2020 15:00		02.20.2020 08:15	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		55.9	2.50	160	5.00	21.8	2.50	31.5	2.50	0.292 J	0.500
TDS by SM2540C	***Extracted:***										
	Analyzed:	02.19.2020 12:17		02.19.2020 12:17		02.19.2020 12:17		02.19.2020 12:17		02.19.2020 12:17	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		499	5.00	989	5.00	372	5.00	533	5.00	ND	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 652790

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.25.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.25.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **652790**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 652790. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 652790 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-15-W-201802	W	02.18.2020 11:15		652790-001
NM-MW-17-W-201802	W	02.18.2020 11:40		652790-002
NM-MW-20-W-201802	W	02.18.2020 12:10		652790-003
NM-MW-21-W-201802	W	02.18.2020 12:35		652790-004
NM-MW-21-WR-201802	W	02.18.2020 12:40		652790-005

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *652790*

Report Date: *02.25.2020*
Date Received: *02.18.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-15-W-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652790-001 Date Collected: 02.18.2020 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.9**	2.50	0.105	mg/L	02.19.2020 14:44		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**499**	5.00	5.00	mg/L	02.19.2020 12:17		1

Certificate of Analytical Results 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-17-W-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652790-002 Date Collected: 02.18.2020 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**160**	5.00	0.210	mg/L	02.19.2020 14:49		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**989**	5.00	5.00	mg/L	02.19.2020 12:17		1

Certificate of Analytical Results 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-20-W-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652790-003 Date Collected: 02.18.2020 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.8**	2.50	0.105	mg/L	02.19.2020 14:54		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**372**	5.00	5.00	mg/L	02.19.2020 12:17		1

Certificate of Analytical Results 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-21-W-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652790-004 Date Collected: 02.18.2020 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**31.5**	2.50	0.105	mg/L	02.19.2020 15:00		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**533**	5.00	5.00	mg/L	02.19.2020 12:17		1

Certificate of Analytical Results 652790

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-21-WR-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652790-005 Date Collected: 02.18.2020 12:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**0.292**	0.500	0.0210	mg/L	02.20.2020 08:15	J	1

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	ND	5.00	5.00	mg/L	02.19.2020 12:17	U	1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 652790

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3117049 Matrix: Water Date Prep: 02.19.2020
MB Sample Id: 7696981-1-BLK LCS Sample Id: 7696981-1-BKS LCSD Sample Id: 7696981-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	25.1	100	24.8	99	90-110	1	20	mg/L	02.19.2020 13:11	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3117049 Matrix: Drinking Water Date Prep: 02.19.2020
Parent Sample Id: 652830-001 MS Sample Id: 652830-001 S MSD Sample Id: 652830-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.38	25.0	27.5	100	27.7	101	90-110	1	20	mg/L	02.19.2020 13:39	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3117049 Matrix: Drinking Water Date Prep: 02.19.2020
Parent Sample Id: 652835-001 MS Sample Id: 652835-001 S MSD Sample Id: 652835-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	33.4	25.0	57.0	94	57.5	96	90-110	1	20	mg/L	02.19.2020 15:19	

Analytical Method: TDS by SM2540C
Seq Number: 3117312 Matrix: Water
MB Sample Id: 3117312-1-BLK LCS Sample Id: 3117312-1-BKS LCSD Sample Id: 3117312-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	981	98	980	98	80-120	0	10	mg/L	02.19.2020 12:17	

Analytical Method: TDS by SM2540C
Seq Number: 3117312 Matrix: Ground Water
Parent Sample Id: 652790-001 MD Sample Id: 652790-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	499	506	1	10	mg/L	02.19.2020 12:17	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1323 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

652790

Xenco Quote #	Xenco Job #

Client / Reporting Information

Company Name / Branch: GHD/Midland

Company Address: 2135 s loop 250 w Midland, Tx 79703

Email: Chris.knight@ghd.com; Liz.whiddon@ghd.com

Phone No: 432-686-0086

Project Contact: Liz Whiddon, Chris Knight

Samplers's Name: Phillip Cole, Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Dollarhide/055270

Invoice To: Chris Knight

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Analytical Information: Chlorides	TDS	Field Comments
1	NM-MW-15-W-201802		2/18/20	1115	GW	1								X	X	X	
2	~~NM-MW-17-W-201802~~		2/18/20	1140	GW	1								X	X	X	
3	NM-MW-20-W-201802		2/18/20	1210	GW	1								X	X	X	
4	NM-MW-21-W-201802		2/18/20	1235	GW	1								X	X	X	
5	NM-MW-21-W-201802		2/18	1240		1								X	X	X	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		2-18-20 1445				
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 1.7 / Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

Final 1.000
Page 13 of 14
Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 02.18.2020 02.45.00 PM

Work Order #: 652790

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Alexis Jaime Date: 02.18.2020

Checklist reviewed by: Debbie Simmons Date: 02.19.2020

Certificate of Analysis Summary 652795

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Tue 02.18.2020 14:45
Report Date: 02.25.2020 17:02
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	652795-001		652795-002					
	Field Id:	NM-MW-14-W-201802		NM-MW-14-WR-20180					
	Depth:								
	Matrix:	GROUND WATER		GROUND WATER					
	Sampled:	02.18.2020 10:50		02.18.2020 10:55					
Inorganic Anions by EPA 300/300.1	***Extracted:***	02.19.2020 12:50		02.19.2020 12:50					
	Analyzed:	02.19.2020 15:38		02.20.2020 08:20					
	Units/RL:	mg/L	RL	mg/L	RL				
Chloride		24.4	2.50	0.187 J	0.500				
TDS by SM2540C	***Extracted:***								
	Analyzed:	02.19.2020 12:17		02.19.2020 12:17					
	Units/RL:	mg/L	RL	mg/L	RL				
Total Dissolved Solids		457	5.00	ND	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 652795

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

02.25.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

02.25.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **652795**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 652795. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 652795 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 652795

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-14-W-201802	W	02.18.2020 10:50		652795-001
NM-MW-14-WR-201802	W	02.18.2020 10:55		652795-002

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *652795*

Report Date: *02.25.2020*
Date Received: *02.18.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 652795

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-14-W-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652795-001 Date Collected: 02.18.2020 10:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.4**	2.50	0.105	mg/L	02.19.2020 15:38		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**457**	5.00	5.00	mg/L	02.19.2020 12:17		1

Certificate of Analytical Results 652795

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-14-WR-201802** Matrix: Ground Water Date Received:02.18.2020 14:45

Lab Sample Id: 652795-002 Date Collected: 02.18.2020 10:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 02.19.2020 12:50

Seq Number: 3117049

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**0.187**	0.500	0.0210	mg/L	02.20.2020 08:20	J	1

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: SPC

Seq Number: 3117312

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	ND	5.00	5.00	mg/L	02.19.2020 12:17	U	1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 652795

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3117049 — Matrix: Water — Date Prep: 02.19.2020
MB Sample Id: 7696981-1-BLK — LCS Sample Id: 7696981-1-BKS — LCSD Sample Id: 7696981-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	25.1	100	24.8	99	90-110	1	20	mg/L	02.19.2020 13:11	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3117049 — Matrix: Drinking Water — Date Prep: 02.19.2020
Parent Sample Id: 652830-001 — MS Sample Id: 652830-001 S — MSD Sample Id: 652830-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.38	25.0	27.5	100	27.7	101	90-110	1	20	mg/L	02.19.2020 13:39	

Analytical Method: Inorganic Anions by EPA 300/300.1 — Prep Method: E300P
Seq Number: 3117049 — Matrix: Drinking Water — Date Prep: 02.19.2020
Parent Sample Id: 652835-001 — MS Sample Id: 652835-001 S — MSD Sample Id: 652835-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	33.4	25.0	57.0	94	57.5	96	90-110	1	20	mg/L	02.19.2020 15:19	

Analytical Method: TDS by SM2540C
Seq Number: 3117312 — Matrix: Water
MB Sample Id: 3117312-1-BLK — LCS Sample Id: 3117312-1-BKS — LCSD Sample Id: 3117312-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	981	98	980	98	80-120	0	10	mg/L	02.19.2020 12:17	

Analytical Method: TDS by SM2540C
Seq Number: 3117312 — Matrix: Ground Water
Parent Sample Id: 652790-001 — MD Sample Id: 652790-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	499	506	1	10	mg/L	02.19.2020 12:17	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 1334 of 1515

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

CHAIN OF CUSTODY

Page 1 Of 1

652795

Xenco Quote #

Xenco Job #

Client / Reporting Information

Company Name / Branch: GHD/Midland

Company Address: 2135 s loop 250 w Midland, Tx 79703

Email: Chris.knight@ghd.com; Liz.whiddon@ghd.com

Phone No: 432-686-0086

Project Contact: Liz Whiddon, Chris Knight

Samplers's Name: Phillip Cole, Joe Mireles

Project Information

Project Name/Number: Dollarhide/055270

Project Location: Dollarhide/055270

Invoice To: Chris Knight

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
OW =Ocean/Sea Water
WI = Wipe
O = Oil
WW= Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Chlorides	TDS	Field Comments
1	NM-MW-14-W-201802		2/18/20	1050	GW	1								X	X	X	
2	NM-MW-14-WR-201802		2/18/20	1055	GW	1								X	X	X	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [X] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1	Phillip Cole	2-18-20 1445				
3						
5						

Custody Seal # | Preserved where applicable | On Ice: N | Cooler Temp: 1.7 | Thermo. Corr. Factor: 0

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

Received by OCD: 3/23/2023 11:36:17 AM
Page 10 of 11
Final 1.000
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 02.18.2020 02.45.00 PM

Work Order #: 652795

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.7
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Alexis Jaime Date: 02.18.2020

Checklist reviewed by: Debbie Simmons Date: 02.19.2020

Certificate of Analysis Summary 658605

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	658605-001		658605-002		658605-003		658605-004		658605-005		658605-006	
	Field Id:	NM-MW-7-W-200904		RRR Ranch Windmill-W-		NM-MW-4-W-200904		NM-MW-8-W-200904		NM-MW-3-W-200904		NM-MW-2-W-200904	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.09.2020 10:20		04.09.2020 10:45		04.09.2020 11:00		04.09.2020 11:20		04.09.2020 11:40		04.09.2020 12:00	
Inorganic Anions by EPA 300/300.1	*Extracted:*	04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30	
	Analyzed:	04.13.2020 13:46		04.13.2020 13:51		04.13.2020 14:44		04.13.2020 13:56		04.13.2020 18:41		04.13.2020 14:01	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2460	25.0	1860	25.0	45.8	2.50	6680	25.0	255	2.50	734	5.00
TDS by SM2540C	*Extracted:*												
	Analyzed:	04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		4620	5.00	3460	5.00	513	5.00	11700	5.00	721	5.00	1270	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658605

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658605-007		658605-008		658605-009		658605-010		658605-011		658605-012	
	Field Id:	NM-MW-1-W-200904		NM-MW-5-W-200904		NM-MW-6-W-200904		NM-MW-1-WD-200904		NM-MW-14-W-201004		NM-MW-9-W-201004	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.09.2020 12:35		04.09.2020 12:45		04.09.2020 13:00		04.09.2020 00:00		04.10.2020 10:15		04.10.2020 10:30	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30	
	Analyzed:	04.13.2020 14:17		04.13.2020 14:23		04.13.2020 14:28		04.13.2020 14:33		04.13.2020 14:38		04.13.2020 14:59	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		277	5.00	158	5.00	145	2.50	291	5.00	25.7	2.50	263	5.00
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1440	5.00	1310	5.00	834	5.00	1440	5.00	482	5.00	833	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658605

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested																	
	Lab Id:	658605-013		658605-014		658605-015		658605-016		658605-017							
	Field Id:	NM-MW-10-W-201004		Wilson Ranch-W-201004		Smith Residence-W-2010		MW-29-W-201004		MW-28-W-201004							
	Depth:																
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER							
	Sampled:	04.10.2020 10:40		04.10.2020 11:15		04.10.2020 11:40		04.10.2020 12:55		04.10.2020 13:00							
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30							
	Analyzed:	04.13.2020 15:05		04.13.2020 15:21		04.13.2020 15:26		04.13.2020 15:31		04.13.2020 15:36							
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL						
Chloride		367	5.00	1260	10.0	1310	10.0	552	5.00	2400	25.0						
TDS by SM2540C	***Extracted:***																
	Analyzed:	04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00							
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL						
Total Dissolved Solids		1720	5.00	2530	5.00	2600	5.00	1270	5.00	4080	5.00						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 658605

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.17.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **658605**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658605. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658605 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-7-W-200904	W	04.09.2020 10:20		658605-001
RRR Ranch Windmill-W-200904	W	04.09.2020 10:45		658605-002
NM-MW-4-W-200904	W	04.09.2020 11:00		658605-003
NM-MW-8-W-200904	W	04.09.2020 11:20		658605-004
NM-MW-3-W-200904	W	04.09.2020 11:40		658605-005
NM-MW-2-W-200904	W	04.09.2020 12:00		658605-006
NM-MW-1-W-200904	W	04.09.2020 12:35		658605-007
NM-MW-5-W-200904	W	04.09.2020 12:45		658605-008
NM-MW-6-W-200904	W	04.09.2020 13:00		658605-009
NM-MW-1-WD-200904	W	04.09.2020 00:00		658605-010
NM-MW-14-W-201004	W	04.10.2020 10:15		658605-011
NM-MW-9-W-201004	W	04.10.2020 10:30		658605-012
NM-MW-10-W-201004	W	04.10.2020 10:40		658605-013
Wilson Ranch-W-201004	W	04.10.2020 11:15		658605-014
Smith Residence-W-201004	W	04.10.2020 11:40		658605-015
MW-29-W-201004	W	04.10.2020 12:55		658605-016
MW-28-W-201004	W	04.10.2020 13:00		658605-017

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *658605*

Report Date: *04.17.2020*
Date Received: *04.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-7-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-001 Date Collected: 04.09.2020 10:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2460**	25.0	1.05	mg/L	04.13.2020 13:46		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4620**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **RRR Ranch Windmill-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-002 Date Collected: 04.09.2020 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1860**	25.0	1.05	mg/L	04.13.2020 13:51		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3460**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-4-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-003 Date Collected: 04.09.2020 11:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**45.8**	2.50	0.105	mg/L	04.13.2020 14:44		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**513**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-8-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-004 Date Collected: 04.09.2020 11:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6680**	25.0	1.05	mg/L	04.13.2020 13:56		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**11700**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-3-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-005 Date Collected: 04.09.2020 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**255**	2.50	0.105	mg/L	04.13.2020 18:41		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**721**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-2-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-006 Date Collected: 04.09.2020 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**734**	5.00	0.210	mg/L	04.13.2020 14:01		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1270**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-007 Date Collected: 04.09.2020 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**277**	5.00	0.210	mg/L	04.13.2020 14:17		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1440**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-5-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-008 Date Collected: 04.09.2020 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**158**	5.00	0.210	mg/L	04.13.2020 14:23		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1310**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-6-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-009 Date Collected: 04.09.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**145**	2.50	0.105	mg/L	04.13.2020 14:28		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**834**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-1-WD-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-010 Date Collected: 04.09.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**291**	5.00	0.210	mg/L	04.13.2020 14:33		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1440**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-14-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-011 Date Collected: 04.10.2020 10:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.7**	2.50	0.105	mg/L	04.13.2020 14:38		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**482**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-9-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-012 Date Collected: 04.10.2020 10:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**263**	5.00	0.210	mg/L	04.13.2020 14:59		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**833**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-10-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-013 Date Collected: 04.10.2020 10:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**367**	5.00	0.210	mg/L	04.13.2020 15:05		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1720**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Wilson Ranch-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-014 Date Collected: 04.10.2020 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	10.0	0.421	mg/L	04.13.2020 15:21		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2530**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Smith Residence-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-015 Date Collected: 04.10.2020 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1310**	10.0	0.421	mg/L	04.13.2020 15:26		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2600**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-29-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-016 Date Collected: 04.10.2020 12:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**552**	5.00	0.210	mg/L	04.13.2020 15:31		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1270**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658605

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-28-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658605-017 Date Collected: 04.10.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2400**	25.0	1.05	mg/L	04.13.2020 15:36		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4080**	5.00	5.00	mg/L	04.13.2020 15:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 658605

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Water Date Prep: 04.13.2020
MB Sample Id: 7701156-1-BLK LCS Sample Id: 7701156-1-BKS LCSD Sample Id: 7701156-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.6	106	27.5	110	90-110	3	20	mg/L	04.13.2020 13:19	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658605-003 MS Sample Id: 658605-003 S MSD Sample Id: 658605-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	45.8	125	178	106	173	102	90-110	3	20	mg/L	04.13.2020 14:49	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658605-005 MS Sample Id: 658605-005 S MSD Sample Id: 658605-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	255	125	374	95	372	94	90-110	1	20	mg/L	04.13.2020 18:46	

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Water
MB Sample Id: 3122842-1-BLK LCS Sample Id: 3122842-1-BKS LCSD Sample Id: 3122842-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1030	103	994	99	80-120	4	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Ground Water
Parent Sample Id: 658605-001 MD Sample Id: 658605-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4620	4730	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Ground Water
Parent Sample Id: 658605-011 MD Sample Id: 658605-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	482	473	2	10	mg/L	04.13.2020 15:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1362 of 1515

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 458605

Page 1 of 2

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide
Project Number:	55270
P.O. Number:	34032659
Sampler's Name:	Joe Mireles / Zack Comino

Turn Around: Routine ☒ Rush: Due Date:

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.7/0.4	Thermometer ID:	B01
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.3
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-mw-7-w-200904	GW	4-9	1020	—	1	X	X
RRR Ranch windmill-w-200904	GW	4-9	1045	—	1	X	X
NM-MW-4-W-200904	GW	4-9	1100	—	1	X	X
NM-MW-8-W-200904	GW	4-9	1120	—	1	X	X
NM-MW-3-W-200904	GW	4-9	1140	—	1	X	X
NM-MW-2-W-200904	GW	4-9	1200	—	1	X	X
NM-MW-1-W-200904	GW	4-9	1235	—	1	X	X
NM-MW-5-W-200904	GW	4-9	1245	—	1	X	X
NM-MW-6-W-200904	GW	4-9	1300	—	1	X	X
NM-MW-1-WD-200904	GW	4-9	—	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Joe Mireles	POW	4/10	2		
			4		
		1524	6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/7/2023 11:36:17 AM
Final 1.000
Page 27 of 29
Released to Imaging: 11/21/2023 10:32:34 AM

Page 1363 of 1515

Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Work Order No: 655665

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles / Zach Comino	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.7/0.4	Thermometer ID	
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.3
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-14-W-201004	GW	4-10	1015	-	1	X	X
NM-MW-9-W-201004	GW	4-10	1030	-	1	X	X
NM-MW-10-W-201004	GW	4-10	1040	-	1	X	X
Wilson Ranch-W-201004	GW	4-10	1115	-	1	X	X
Smith Residence-W-201004	GW	4-10	1140	-	1	X	X
MW-29-W-201004	GW	4-10	1255	-	1	X	X
MW-28-W-201004	GW	4-10	1300	-	1	X	X

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Joe Mireles		4/10	2		
			4		
		1540	6		

Received by OCD: 3/3/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 28 of 29

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.10.2020 03.26.00 PM

Work Order #: 658605

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 04.10.2020

Checklist reviewed by: Debbie Simmons — Date: 04.13.2020

Certificate of Analysis Summary 658606

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658606-001		658606-002		658606-003		658606-004		658606-005		658606-006	
	Field Id:	NM-MW-13-W-200904		NM-MW-11-W-200904		NM-MW-15-W-200904		NM-MW-17-W-200904		NM-MW-20-W-200904		NM-MW-21-W-200904	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.09.2020 13:30		04.09.2020 14:00		04.09.2020 14:10		04.09.2020 14:35		04.09.2020 15:00		04.09.2020 15:10	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:30		04.13.2020 12:50		04.13.2020 12:50		04.13.2020 12:50	
	Analyzed:	04.13.2020 15:42		04.13.2020 15:47		04.13.2020 15:52		04.13.2020 16:40		04.13.2020 16:24		04.13.2020 16:45	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		201	5.00	160	5.00	55.6	2.50	198	5.00	21.0	2.50	28.3	2.50
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1090	5.00	1990	5.00	530	5.00	1070	5.00	408	5.00	560	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658606

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	658606-007						
	Field Id:	NM-MW-12-W-201004						
	Depth:							
	Matrix:	GROUND WATER						
	Sampled:	04.10.2020 11:05						
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.13.2020 12:50						
	Analyzed:	04.13.2020 16:50						
	Units/RL:	mg/L	RL					
Chloride		591	5.00					
TDS by SM2540C	***Extracted:***							
	Analyzed:	04.13.2020 15:00						
	Units/RL:	mg/L	RL					
Total Dissolved Solids		1290	5.00					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 658606

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.17.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **658606**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658606. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658606 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NM-MW-13-W-200904	W	04.09.2020 13:30		658606-001
NM-MW-11-W-200904	W	04.09.2020 14:00		658606-002
NM-MW-15-W-200904	W	04.09.2020 14:10		658606-003
NM-MW-17-W-200904	W	04.09.2020 14:35		658606-004
NM-MW-20-W-200904	W	04.09.2020 15:00		658606-005
NM-MW-21-W-200904	W	04.09.2020 15:10		658606-006
NM-MW-12-W-201004	W	04.10.2020 11:05		658606-007

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *658606*

Report Date: *04.17.2020*
Date Received: *04.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-13-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-001 Date Collected: 04.09.2020 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**201**	5.00	0.210	mg/L	04.13.2020 15:42		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1090**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-11-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-002 Date Collected: 04.09.2020 14:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**160**	5.00	0.210	mg/L	04.13.2020 15:47		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1990**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-15-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-003 Date Collected: 04.09.2020 14:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:30

Seq Number: 3122883

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.6**	2.50	0.105	mg/L	04.13.2020 15:52		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122842

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**530**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-17-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-004 Date Collected: 04.09.2020 14:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**198**	5.00	0.210	mg/L	04.13.2020 16:40		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1070**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-20-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-005 Date Collected: 04.09.2020 15:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.0**	2.50	0.105	mg/L	04.13.2020 16:24		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**408**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-21-W-200904** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-006 Date Collected: 04.09.2020 15:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.3**	2.50	0.105	mg/L	04.13.2020 16:45		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**560**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658606

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **NM-MW-12-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658606-007 Date Collected: 04.10.2020 11:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**591**	5.00	0.210	mg/L	04.13.2020 16:50		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1290**	5.00	5.00	mg/L	04.13.2020 15:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 658606

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Water Date Prep: 04.13.2020
MB Sample Id: 7701156-1-BLK LCS Sample Id: 7701156-1-BKS LCSD Sample Id: 7701156-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.6	106	27.5	110	90-110	3	20	mg/L	04.13.2020 13:19	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Water Date Prep: 04.13.2020
MB Sample Id: 7701157-1-BLK LCS Sample Id: 7701157-1-BKS LCSD Sample Id: 7701157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.9	108	25.8	103	90-110	4	20	mg/L	04.13.2020 16:13	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658605-003 MS Sample Id: 658605-003 S MSD Sample Id: 658605-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	45.8	125	178	106	173	102	90-110	3	20	mg/L	04.13.2020 14:49	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122883 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658605-005 MS Sample Id: 658605-005 S MSD Sample Id: 658605-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	255	125	374	95	372	94	90-110	1	20	mg/L	04.13.2020 18:46	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658606-005 MS Sample Id: 658606-005 S MSD Sample Id: 658606-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.0	125	150	103	151	104	90-110	1	20	mg/L	04.13.2020 16:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658607-001 MS Sample Id: 658607-001 S MSD Sample Id: 658607-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	69.6	125	203	107	199	104	90-110	2	20	mg/L	04.13.2020 17:43	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 658606

GHD Services, INC- Midland

Dollarhide

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Water
MB Sample Id: 3122842-1-BLK LCS Sample Id: 3122842-1-BKS LCSD Sample Id: 3122842-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1030	103	994	99	80-120	4	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Water
MB Sample Id: 3122845-1-BLK LCS Sample Id: 3122845-1-BKS LCSD Sample Id: 3122845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	996	100	1020	102	80-120	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Ground Water
Parent Sample Id: 658605-001 MD Sample Id: 658605-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	4620	4730	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122842 Matrix: Ground Water
Parent Sample Id: 658605-011 MD Sample Id: 658605-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	482	473	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Ground Water
Parent Sample Id: 658606-004 MD Sample Id: 658606-004 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1070	1050	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Ground Water
Parent Sample Id: 658630-003 MD Sample Id: 658630-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	8600	8510	1	10	mg/L	04.13.2020 15:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1381 of 1515

Chain of Custody

Work Order No: 605606

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com

Page 1 of 1

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☑
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☑
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles/Zach Comino	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.7/0.4	Thermometer ID	89
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No ~~N/A~~	Correction Factor:	-0.3
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
NM-MW-13-W-200904	GW	~~9-4-9~~ 4-10	1330	—	1	X	X
NM-MW-11-W-200904	GW	~~9-4-9~~ 4-10	1400	—	1	X	X
NM-MW-15-W-200904	GW	~~9-4-9~~ 4-10	1410	—	1	X	X
NM-MW-17-W-200904	GW	~~9-4-9~~ 4-10	1435	—	1	X	X
NM-MW-20-W-200904	GW	~~9-4-9~~ 4-10	1500	—	1	X	X
NM-MW-21-W-200904	GW	~~9-4-9~~ 4-10	1510	—	1	X	X
NM-MW-12-W-200904	GW	4-10	1105	—	1	X	X

ANALYSIS REQUEST

Work Order Notes

Please place this set of 5 samples on ~~the~~ a separate report

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	Paul	4/10	2		
3			4		
5		1524	6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 17 of 18
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.10.2020 03.26.00 PM

Work Order #: 658606

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 04.10.2020

Checklist reviewed by: Debbie Simmons — Date: 04.13.2020

Certificate of Analysis Summary 658607

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Fri 04.10.2020 15:26
Report Date: 04.17.2020 12:09
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658607-001		658607-002		658607-003		658607-004					
	Field Id:	MW-34-W-201004		MW-33-W-201004		MW-32-W-201004		MW-32-WD-201004					
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	04.10.2020 11:55		04.10.2020 12:05		04.10.2020 12:15		04.10.2020 00:00					
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.13.2020 12:50		04.13.2020 12:50		04.13.2020 12:50		04.13.2020 12:50					
	Analyzed:	04.13.2020 17:38		04.13.2020 16:55		04.13.2020 17:11		04.13.2020 17:17					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		69.6	2.50	190	5.00	342	5.00	339	5.00				
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00		04.13.2020 15:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		618	5.00	1100	5.00	1130	5.00	1140	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 658607

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.17.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **658607**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658607. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658607 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 658607

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-34-W-201004	W	04.10.2020 11:55		658607-001
MW-33-W-201004	W	04.10.2020 12:05		658607-002
MW-32-W-201004	W	04.10.2020 12:15		658607-003
MW-32-WD-201004	W	04.10.2020 00:00		658607-004

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *658607*

Report Date: *04.17.2020*
Date Received: *04.10.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 658607

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-34-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658607-001 Date Collected: 04.10.2020 11:55

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.6**	2.50	0.105	mg/L	04.13.2020 17:38		5

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**618**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658607

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-33-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658607-002 Date Collected: 04.10.2020 12:05

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**190**	5.00	0.210	mg/L	04.13.2020 16:55		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1100**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658607

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-W-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658607-003 Date Collected: 04.10.2020 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**342**	5.00	0.210	mg/L	04.13.2020 17:11		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1130**	5.00	5.00	mg/L	04.13.2020 15:00		1

Certificate of Analytical Results 658607

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-32-WD-201004** Matrix: Ground Water Date Received:04.10.2020 15:26

Lab Sample Id: 658607-004 Date Collected: 04.10.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 04.13.2020 12:50

Seq Number: 3122887

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**339**	5.00	0.210	mg/L	04.13.2020 17:17		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122845

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1140**	5.00	5.00	mg/L	04.13.2020 15:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 658607

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Water Date Prep: 04.13.2020
MB Sample Id: 7701157-1-BLK LCS Sample Id: 7701157-1-BKS LCSD Sample Id: 7701157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.9	108	25.8	103	90-110	4	20	mg/L	04.13.2020 16:13	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658606-005 MS Sample Id: 658606-005 S MSD Sample Id: 658606-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.0	125	150	103	151	104	90-110	1	20	mg/L	04.13.2020 16:29	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3122887 Matrix: Ground Water Date Prep: 04.13.2020
Parent Sample Id: 658607-001 MS Sample Id: 658607-001 S MSD Sample Id: 658607-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	69.6	125	203	107	199	104	90-110	2	20	mg/L	04.13.2020 17:43	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Water
MB Sample Id: 3122845-1-BLK LCS Sample Id: 3122845-1-BKS LCSD Sample Id: 3122845-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	996	100	1020	102	80-120	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Ground Water
Parent Sample Id: 658606-004 MD Sample Id: 658606-004 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1070	1050	2	10	mg/L	04.13.2020 15:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122845 Matrix: Ground Water
Parent Sample Id: 658630-003 MD Sample Id: 658630-003 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	8600	8510	1	10	mg/L	04.13.2020 15:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Page 1394 of 1515

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 1

Work Order No: 450607

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair- Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc.- 340
Address:	2135 S. Loop 250 West	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX. 79703	City, State ZIP:	Niagara Falls, NY. 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com & Christopher.Knight@ghd.com & Brittany.White@ghd.com & edds@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	55270	Routine	☒
P.O. Number:	34032659	Rush:	
Sampler's Name:	Joe Mireles/Zach Comino	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	0.7 6.9	Thermometer ID	D9
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No ~~N/A~~	Correction Factor:	-0.3
Sample Custody Seals:	Yes No ~~N/A~~	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS
MW-34-W-201004	GW	4-10	1155	—	1	X	X
MW-33-W-201004	GW	4-10	1205	—	1	X	X
MW-32-W-201004	GW	4-10	1215	—	1	X	X
MW-32-WD-201004	GW	4-10	—	—	1	X	X

Work Order Notes

Please ~~report~~place these samples on a separate report.

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Joe Mireles	BRW	4/10	2		
3			4		
5		1524	6		

Revised Date 051418 Rev. 2018.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 12 of 13

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.10.2020 03.26.00 PM

Work Order #: 658607

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel — Date: 04.10.2020

Checklist reviewed by: Debbie Simmons — Date: 04.13.2020

Certificate of Analysis Summary 658697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Mon 04.13.2020 16:05
Report Date: 04.17.2020 12:08
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658697-001		658697-002		658697-003		658697-004		658697-005		658697-006	
	Field Id:	MW-3-W-201304		MW-4-W-201304		MW-5-W-201304		MW-13-W-201304		MW-14-W-201304		MW-15-W-201304	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.13.2020 11:15		04.13.2020 11:40		04.13.2020 11:30		04.13.2020 12:30		04.13.2020 11:45		04.13.2020 12:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40	
	Analyzed:	04.14.2020 10:48		04.14.2020 10:54		04.14.2020 10:59		04.14.2020 11:04		04.14.2020 11:24		04.14.2020 11:29	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		603	5.00	323	5.00	265	5.00	1580	25.0	1130	25.0	1010	10.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1400	5.00	939	5.00	986	5.00	4420	5.00	3130	5.00	1960	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Mon 04.13.2020 16:05
Report Date: 04.17.2020 12:08
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	658697-007		658697-008		658697-009		658697-010		658697-011		658697-012	
	Field Id:	MW-16-W-201304		MW-17-W-201304		MW-21-W-201304		MW-22-W-201304		MW-23-W-201304		Livermore-W-201304	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.13.2020 12:10		04.13.2020 13:00		04.13.2020 12:20		04.13.2020 12:35		04.13.2020 12:45		04.13.2020 13:30	
Inorganic Anions by EPA 300/300.1	*Extracted:*	04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40		04.14.2020 09:40	
	Analyzed:	04.14.2020 11:34		04.14.2020 11:39		04.14.2020 11:45		04.14.2020 12:11		04.14.2020 12:16		04.14.2020 12:36	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		310	5.00	7870	50.0	6610	50.0	11700	50.0	3540	25.0	1880	25.0
TDS by SM2540C	*Extracted:*												
	Analyzed:	04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00		04.14.2020 12:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1030	5.00	13800	5.00	10200	5.00	19800	5.00	7780	5.00	4300	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658697

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Mon 04.13.2020 16:05
Report Date: 04.17.2020 12:08
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658697-013				658697-014							
	Field Id:	DHU-FWS-W-201304				MW-17-WD-201304							
	Depth:												
	Matrix:	GROUND WATER				GROUND WATER							
	Sampled:	04.13.2020 13:50				04.13.2020 13:00							
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.14.2020 09:40				04.14.2020 09:40							
	Analyzed:	04.14.2020 12:41				04.14.2020 12:46							
	Units/RL:	mg/L	RL			mg/L	RL						
Chloride		570	10.0			8210	50.0						
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.14.2020 12:00				04.14.2020 12:00							
	Units/RL:	mg/L	RL			mg/L	RL						
Total Dissolved Solids		2940	5.00			14400	5.00						

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 658697

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.17.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **658697**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658697. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658697 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-3-W-201304	W	04.13.2020 11:15		658697-001
MW-4-W-201304	W	04.13.2020 11:40		658697-002
MW-5-W-201304	W	04.13.2020 11:30		658697-003
MW-13-W-201304	W	04.13.2020 12:30		658697-004
MW-14-W-201304	W	04.13.2020 11:45		658697-005
MW-15-W-201304	W	04.13.2020 12:00		658697-006
MW-16-W-201304	W	04.13.2020 12:10		658697-007
MW-17-W-201304	W	04.13.2020 13:00		658697-008
MW-21-W-201304	W	04.13.2020 12:20		658697-009
MW-22-W-201304	W	04.13.2020 12:35		658697-010
MW-23-W-201304	W	04.13.2020 12:45		658697-011
Livermore-W-201304	W	04.13.2020 13:30		658697-012
DHU-FWS-W-201304	W	04.13.2020 13:50		658697-013
MW-17-WD-201304	W	04.13.2020 13:00		658697-014

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *658697*

Report Date: *04.17.2020*
Date Received: *04.13.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-3-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-001 Date Collected: 04.13.2020 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**603**	5.00	0.210	mg/L	04.14.2020 10:48		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1400**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-4-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-002 Date Collected: 04.13.2020 11:40

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**323**	5.00	0.210	mg/L	04.14.2020 10:54		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**939**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-5-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-003 Date Collected: 04.13.2020 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**265**	5.00	0.210	mg/L	04.14.2020 10:59		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**986**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-13-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-004 Date Collected: 04.13.2020 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1580**	25.0	1.05	mg/L	04.14.2020 11:04		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4420**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-14-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-005 Date Collected: 04.13.2020 11:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1130**	25.0	1.05	mg/L	04.14.2020 11:24		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3130**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-15-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-006 Date Collected: 04.13.2020 12:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1010**	10.0	0.421	mg/L	04.14.2020 11:29		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1960**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-16-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-007 Date Collected: 04.13.2020 12:10

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**310**	5.00	0.210	mg/L	04.14.2020 11:34		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1030**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-008 Date Collected: 04.13.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7870**	50.0	2.10	mg/L	04.14.2020 11:39		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13800**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-21-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-009 Date Collected: 04.13.2020 12:20

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6610**	50.0	2.10	mg/L	04.14.2020 11:45		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**10200**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-22-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-010 Date Collected: 04.13.2020 12:35

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11700**	50.0	2.10	mg/L	04.14.2020 12:11		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**19800**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-23-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-011 Date Collected: 04.13.2020 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3540**	25.0	1.05	mg/L	04.14.2020 12:16		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**7780**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **Livermore-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-012 Date Collected: 04.13.2020 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1880**	25.0	1.05	mg/L	04.14.2020 12:36		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4300**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **DHU-FWS-W-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-013 Date Collected: 04.13.2020 13:50

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**570**	10.0	0.421	mg/L	04.14.2020 12:41		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2940**	5.00	5.00	mg/L	04.14.2020 12:00		1

Certificate of Analytical Results 658697

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-17-WD-201304** Matrix: Ground Water Date Received:04.13.2020 16:05

Lab Sample Id: 658697-014 Date Collected: 04.13.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.14.2020 09:40

Seq Number: 3123014

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8210**	50.0	2.10	mg/L	04.14.2020 12:46		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3122935

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**14400**	5.00	5.00	mg/L	04.14.2020 12:00		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 658697

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123014 Matrix: Water Date Prep: 04.14.2020
MB Sample Id: 7701214-1-BLK LCS Sample Id: 7701214-1-BKS LCSD Sample Id: 7701214-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	26.5	106	26.5	106	90-110	0	20	mg/L	04.14.2020 10:13	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123014 Matrix: Drinking Water Date Prep: 04.14.2020
Parent Sample Id: 658711-001 MS Sample Id: 658711-001 S MSD Sample Id: 658711-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.28	25.0	30.7	106	29.9	102	90-110	3	20	mg/L	04.14.2020 10:34	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123014 Matrix: Drinking Water Date Prep: 04.14.2020
Parent Sample Id: 658712-001 MS Sample Id: 658712-001 S MSD Sample Id: 658712-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	73.0	25.0	103	120	104	124	90-110	1	20	mg/L	04.14.2020 11:57	X

Analytical Method: TDS by SM2540C
Seq Number: 3122935 Matrix: Water
MB Sample Id: 3122935-1-BLK LCS Sample Id: 3122935-1-BKS LCSD Sample Id: 3122935-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	1020	102	996	100	80-120	2	10	mg/L	04.14.2020 12:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122935 Matrix: Ground Water
Parent Sample Id: 658697-001 MD Sample Id: 658697-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1400	1330	5	10	mg/L	04.14.2020 12:00	

Analytical Method: TDS by SM2540C
Seq Number: 3122935 Matrix: Ground Water
Parent Sample Id: 658697-011 MD Sample Id: 658697-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	7780	7600	2	10	mg/L	04.14.2020 12:00	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1419 of 1515

XENCO LABORATORIES

Chain of Custody

Work Order No: 450497

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair-Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc. -340
Address:	2135 S Loop 250 W	Address:	2055 Niagra Falls Blvd.
City, State ZIP:	Midland, TX 79703	City, State ZIP:	Niagra Falls, NY 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☒
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270	Routine	☒
Project Location	Jal, NM	Rush:	
Sampler's Name:	Matthew Laughlin	Due Date:	
PO #:	34032659	Quote #:	

SAMPLE RECEIPT				
Temperature (°C):	3.0/3.3	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID	89	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.3	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	Chlorides	TDS	Sample Comments
	~~MW-2-W-201304~~	GW	04/13	(ML)						
	MW-3-W-201304	GW	04/13	1115	-	1		X	X	
	MW-4-W-201304	GW	04/13	1140	-	1		X	X	
	MW-5-W-201304	GW	04/13	1130	-	1		X	X	
	MW-13-W-201304	GW	04/13	1230	-	1		X	X	
	MW-14-W-201304	GW	04/13	1145	-	1		X	X	
	MW-15-W-201304	GW	04/13	1200	-	1		X	X	
	MW-16-W-201304	GW	04/13	1210	-	1		X	X	
	MW-17-W-201304	GW	04/13	1300	-	1		X	X	
	MW-21-W-201304	GW	04/13	1230	-	1		X	X	

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		04/13/20 1605	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 3/23/2023 11:36:17 AM
Page 24 of 26
Final 1.000
Released to Imaging: 11/21/2023 10:32:34 AM

Page 1420 of 1515

Chain of Custody

XENCO LABORATORIES
Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Work Order No: 450497

Page 2 of 2

Project Manager:	Nick Casten	Bill to: (if different)	Gina Blair-Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc. - 340
Address:	2135 S Loop 250 W	Address:	2055 Niagra Falls Blvd.
City, State ZIP:	Midland, TX 79703	City, State ZIP:	Niagra Falls, NY 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270	Routine	☒
Project Location	Jal, NM	Rush:	
Sampler's Name:	Matthew Laughlin	Due Date:	
PO #:	340326659	Quote #:	

SAMPLE RECEIPT			
Temperature (°C):	3.6/3.3	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Thermometer ID	89
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.3
Sample Custody Seals:	Yes No ~~N/A~~	Total Containers:	
		Wet Ice:	(Yes) No

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	Chlorides	TDS	Sample Comments
	MW-22-W-201304	GW	04/13	1235	-	1		X	X	
	MW-23-W-201304	GW	04/13	1245	-	1		X	X	
	Livermore-W-201304	GW	04/13	1330	-	1		X	X	
	DHL-FWS-W-201304	GW	04/13	1350	-	1		X	X	
	MW-17-WD-201304	GW	04/13	1300	-	1		X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		04/13/20 1605	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 3/23/2023 11:36:17 AM
Final 1.000
Page 25 of 26
Released to Imaging: 11/21/2023 10:32:34 AM

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.13.2020 04.05.00 PM

Work Order #: 658697

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel Date: 04.13.2020

Brianna Teel

Checklist reviewed by: Debbie Simmons Date: 04.14.2020

Debbie Simmons

Certificate of Analysis Summary 658798

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Tue 04.14.2020 16:30
Report Date: 04.17.2020 13:56
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658798-001		658798-002		658798-003		658798-004		658798-005		658798-006	
	Field Id:	MW-6-W-201404		MW-8-W-201404		MW-9-W-201404		MW-10-W-201404		MW-11-W-201404		MW-12-W-201404	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.14.2020 12:45		04.14.2020 14:30		04.14.2020 14:45		04.14.2020 12:15		04.14.2020 12:30		04.14.2020 13:00	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00	
	Analyzed:	04.15.2020 10:28		04.15.2020 10:50		04.15.2020 10:55		04.15.2020 11:00		04.15.2020 11:05		04.15.2020 11:25	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		387	5.00	750	10.0	1800	25.0	3260	25.0	7620	50.0	13600	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		1530	5.00	2370	5.00	4100	5.00	8730	5.00	13400	5.00	23400	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658798

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Tue 04.14.2020 16:30
Report Date: 04.17.2020 13:56
Project Manager: Debbie Simmons

Analysis Requested													
	Lab Id:	658798-007		658798-008		658798-009		658798-010		658798-011		658798-012	
	Field Id:	MW-18-W-201404		MW-19-W-201404		MW-20-W-201404		MW-24-W-201404		MW-25-W-201404		MW-26-W-201404	
	Depth:												
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER		GROUND WATER	
	Sampled:	04.14.2020 10:30		04.14.2020 10:45		04.14.2020 11:30		04.14.2020 11:00		04.14.2020 13:30		04.14.2020 11:15	
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00	
	Analyzed:	04.15.2020 11:30		04.15.2020 11:35		04.15.2020 11:41		04.15.2020 11:46		04.15.2020 12:12		04.15.2020 12:18	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		18500	100	7170	50.0	1140	10.0	2770	25.0	24200	100	1230	25.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total Dissolved Solids		34000	5.00	13300	5.00	2970	5.00	9190	5.00	38500	5.00	3260	5.00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Certificate of Analysis Summary 658798

GHD Services, INC- Midland, Midland, TX

Project Name: Dollarhide

Project Id: 055270
Contact: Nick Casten
Project Location: New Mexico

Date Received in Lab: Tue 04.14.2020 16:30
Report Date: 04.17.2020 13:56
Project Manager: Debbie Simmons

Analysis Requested											
	Lab Id:	658798-013		658798-014		658798-015					
	Field Id:	MW-27-W-201404		MW-30-W-201404		MW-31-W-201404					
	Depth:										
	Matrix:	GROUND WATER		GROUND WATER		GROUND WATER					
	Sampled:	04.14.2020 11:45		04.14.2020 13:45		04.14.2020 14:15					
Inorganic Anions by EPA 300/300.1	***Extracted:***	04.15.2020 10:00		04.15.2020 10:00		04.15.2020 10:00					
	Analyzed:	04.15.2020 12:37		04.15.2020 12:42		04.15.2020 12:48					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		1770	25.0	1300	25.0	9960	100				
TDS by SM2540C	***Extracted:***										
	Analyzed:	04.15.2020 15:30		04.15.2020 15:30		04.15.2020 15:30					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL				
Total Dissolved Solids		4170	5.00	3960	5.00	17900	5.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Debbie Simmons
Project Manager

Analytical Report 658798

for

GHD Services, INC- Midland

Project Manager: Nick Casten

Dollarhide

055270

04.17.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04.17.2020

Project Manager: **Nick Casten**
GHD Services, INC- Midland
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **658798**
Dollarhide
Project Address: New Mexico

Nick Casten:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 658798. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 658798 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Debbie Simmons

Debbie Simmons
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Sample Cross Reference 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-6-W-201404	W	04.14.2020 12:45		658798-001
MW-8-W-201404	W	04.14.2020 14:30		658798-002
MW-9-W-201404	W	04.14.2020 14:45		658798-003
MW-10-W-201404	W	04.14.2020 12:15		658798-004
MW-11-W-201404	W	04.14.2020 12:30		658798-005
MW-12-W-201404	W	04.14.2020 13:00		658798-006
MW-18-W-201404	W	04.14.2020 10:30		658798-007
MW-19-W-201404	W	04.14.2020 10:45		658798-008
MW-20-W-201404	W	04.14.2020 11:30		658798-009
MW-24-W-201404	W	04.14.2020 11:00		658798-010
MW-25-W-201404	W	04.14.2020 13:30		658798-011
MW-26-W-201404	W	04.14.2020 11:15		658798-012
MW-27-W-201404	W	04.14.2020 11:45		658798-013
MW-30-W-201404	W	04.14.2020 13:45		658798-014
MW-31-W-201404	W	04.14.2020 14:15		658798-015

CASE NARRATIVE

Client Name: GHD Services, INC- Midland

Project Name: Dollarhide

Project ID: *055270*
Work Order Number(s): *658798*

Report Date: *04.17.2020*
Date Received: *04.14.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-6-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-001 Date Collected: 04.14.2020 12:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**387**	5.00	0.210	mg/L	04.15.2020 10:28		10

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**1530**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-8-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-002 Date Collected: 04.14.2020 14:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**750**	10.0	0.421	mg/L	04.15.2020 10:50		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2370**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-9-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-003 Date Collected: 04.14.2020 14:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1800**	25.0	1.05	mg/L	04.15.2020 10:55		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4100**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-10-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-004 Date Collected: 04.14.2020 12:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3260**	25.0	1.05	mg/L	04.15.2020 11:00		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**8730**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-11-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-005 Date Collected: 04.14.2020 12:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7620**	50.0	2.10	mg/L	04.15.2020 11:05		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13400**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-12-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-006 Date Collected: 04.14.2020 13:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13600**	50.0	2.10	mg/L	04.15.2020 11:25		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**23400**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-18-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-007 Date Collected: 04.14.2020 10:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18500**	100	4.21	mg/L	04.15.2020 11:30		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**34000**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-19-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-008 Date Collected: 04.14.2020 10:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7170**	50.0	2.10	mg/L	04.15.2020 11:35		100

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**13300**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-20-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-009 Date Collected: 04.14.2020 11:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1140**	10.0	0.421	mg/L	04.15.2020 11:41		20

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**2970**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-24-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-010 Date Collected: 04.14.2020 11:00

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2770**	25.0	1.05	mg/L	04.15.2020 11:46		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**9190**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-25-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-011 Date Collected: 04.14.2020 13:30

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24200**	100	4.21	mg/L	04.15.2020 12:12		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**38500**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-26-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-012 Date Collected: 04.14.2020 11:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1230**	25.0	1.05	mg/L	04.15.2020 12:18		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3260**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-27-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-013 Date Collected: 04.14.2020 11:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1770**	25.0	1.05	mg/L	04.15.2020 12:37		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**4170**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-30-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-014 Date Collected: 04.14.2020 13:45

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1300**	25.0	1.05	mg/L	04.15.2020 12:42		50

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**3960**	5.00	5.00	mg/L	04.15.2020 15:30		1

Certificate of Analytical Results 658798

GHD Services, INC- Midland, Midland, TX

Dollarhide

Sample Id: **MW-31-W-201404** Matrix: Ground Water Date Received:04.14.2020 16:30

Lab Sample Id: 658798-015 Date Collected: 04.14.2020 14:15

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 04.15.2020 10:00

Seq Number: 3123137

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9960**	100	4.21	mg/L	04.15.2020 12:48		200

Analytical Method: TDS by SM2540C

Tech: CHE % Moisture:

Analyst: CHE

Seq Number: 3123109

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Total Dissolved Solids	1642222	**17900**	5.00	5.00	mg/L	04.15.2020 15:30		1

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 658798

GHD Services, INC- Midland

Dollarhide

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123137 Matrix: Water Date Prep: 04.15.2020
MB Sample Id: 7701291-1-BLK LCS Sample Id: 7701291-1-BKS LCSD Sample Id: 7701291-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.0210	25.0	24.3	97	24.7	99	90-110	2	20	mg/L	04.15.2020 10:14	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123137 Matrix: Ground Water Date Prep: 04.15.2020
Parent Sample Id: 658798-001 MS Sample Id: 658798-001 S MSD Sample Id: 658798-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	387	250	654	107	651	106	90-110	0	20	mg/L	04.15.2020 10:35	

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
Seq Number: 3123137 Matrix: Drinking Water Date Prep: 04.15.2020
Parent Sample Id: 658801-001 MS Sample Id: 658801-001 S MSD Sample Id: 658801-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.71	25.0	34.1	118	33.1	114	90-110	3	20	mg/L	04.15.2020 11:58	X

Analytical Method: TDS by SM2540C
Seq Number: 3123109 Matrix: Water
MB Sample Id: 3123109-1-BLK LCS Sample Id: 3123109-1-BKS LCSD Sample Id: 3123109-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	<5.00	1000	960	96	982	98	80-120	2	10	mg/L	04.15.2020 15:30	

Analytical Method: TDS by SM2540C
Seq Number: 3123109 Matrix: Ground Water
Parent Sample Id: 658798-001 MD Sample Id: 658798-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	1530	1460	5	10	mg/L	04.15.2020 15:30	

Analytical Method: TDS by SM2540C
Seq Number: 3123109 Matrix: Ground Water
Parent Sample Id: 658798-011 MD Sample Id: 658798-011 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Total Dissolved Solids	38500	38100	1	10	mg/L	04.15.2020 15:30	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Page 1446 of 1515

XENCO LABORATORIES

Chain of Custody

Work Order No: 458748

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701
www.xenco.com

Project Manager:	Nick Custer	Bill to: (if different)	Gina.Blair-Apinvoices-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc. - 340
Address:	2135 S Loop 250 W	Address:	2055 Niagara Falls Blvd.
City, State ZIP:	Midland, TX 79703	City, State ZIP:	Niagara Falls, ~~Blvd~~ NY 14304
Phone:	225-292-9007	Email:	Nick.Custer@ghd.com Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270	Routine	☒
Project Location	Jal, NM	Rush:	
Sampler's Name:	Matthew Langhlin	Due Date:	
PO #:	34032659	Quote #:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Temperature (°C):	6.5/6.3	Thermometer ID	89
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.3
Sample Custody Seals:	Yes No N/A	Total Containers:	

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	Chlorides	TDS	Sample Comments
	MW-6-W-201404	GW	04/14	1245	-	1		X	X	
	MW-8-W-201404	GW	04/14	1430	-	1		X	X	
	MW-9-W-201404	GW	04/14	1445	-	1		X	X	
	MW-10-W-201404	GW	04/14	1215	-	1		X	X	
	MW-11-W-201404	GW	04/14	1230	-	1		X	X	
	MW-12-W-201404	GW	04/14	1300	-	1		X	X	
	MW-18-W-201404	GW	04/14	1030	-	1		X	X	
	MW-19-W-201404	GW	04/14	1045	-	1		X	X	
	MW-20-W-201404	GW	04/14	1130	-	1		X	X	
	MW-24-W-201404	GW	04/14	1100	-	1		X	X	

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		4/14 1030	2		
3			4		
5			6		

Revised Date 022619 Rev. 2019.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 25 of 27

Page 1447 of 1515

Chain of Custody

Work Order No: 1654798

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Craslbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701 www.xenco.com

Project Manager:	Nick Casten	Bill to: (if different)	Gina.Blair-Aprvcles-340@ghd.com
Company Name:	GHD	Company Name:	GHD Services Inc. - 340
Address:	2135 S Loop 250 W	Address:	2055 Niagra Falls Blvd.
City, State ZIP:	Midland, TX 79703	City, State ZIP:	Niagra Falls, NY 14304
Phone:	225-292-9007	Email:	Nick.Casten@ghd.com Christopher.Knight@ghd.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Dollarhide	Turn Around	
Project Number:	055270	Routine	☒
Project Location	Lea, NM	Rush:	
Sampler's Name:	Matthew Laughlin	Due Date:	
PO #:	3403265 9	Quote #:	

SAMPLE RECEIPT

Temperature (°C):	0.3 / 0.5	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	69
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.3
		Total Containers:	

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TDS	Sample Comments
	MW-25-201404	GW	04/14	1330	-	1	X	X	
	MW-26-201404	GW	04/14	1115	-	1	X	X	
	MW-27-201404	GW	04/14	1145	-	1	X	X	
	MW-30-201404	GW	04/14	1345	-	1	X	X	
	MW-31-201404	GW	04/14	1415	-	1	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		BW	04/14/2016 32	2			
3				4			
5				6			

Revised Date 022619 Rev. 2019.1

Received by OCD: 3/23/2023 11:36:17 AM
Released to Imaging: 11/21/2023 10:32:34 AM
Final 1.000
Page 26 of 27

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: GHD Services, INC- Midland

Date/ Time Received: 04.14.2020 04.30.51 PM

Work Order #: 658798

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	8.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	Cooling in progress
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: AJA

PH Device/Lot#: 10BDH1991

Checklist completed by: Brianna Teel
Brianna Teel

Date: 04.14.2020

Checklist reviewed by: Debbie Simmons
Debbie Simmons

Date: 04.15.2020

Appendix F
Historical Groundwater Analytical Data

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Monitor Wells			
43-K-1-MW			
	2/28/2007	**6,200**	**11,400**
	7/26/2007	**7,250**	**13,500**
	1/22/2008	**7,360**	**12,500**
	7/7/2008	**7,460**	**14,300**
	1/28/2009	**8,210**	**14,500**
	8/26/2009	**9,140**	**16,700**
	2/19/2010	**7,560**	**15,000**
	8/18/2010	**10,600**	**17,900**
	2/15/2011	**11,900**	**15,400**
	8/4/2011	**11,600**	**19,800**
	2/3/2012	**9,560**	**19,900**
	7/17/2015	**8,870**	**16,700**
	1/29/2016	NS	NS
	7/20/2016	**8,470**	**13,800**
	1/11/2017	**8,360**	**15,400**
	4/10/2017	NS	NS
	7/14/2017	**8,550**	**14,000**
	1/12/2018	**8,020**	**10,500**
	7/5/2018	**7,840**	**12,700**
	1/7/2019	**7,130**	**9,640**
	7/17/2019	**7,050**	**11,000**
	1/23/2020	**6,570**	**11,300**
44-I-1-MW			
	01/06	**1,909**	**3,728**
	04/06	**1,349**	**2,823**
	6/13/2006	**1,300**	**2,930**
	9/13/2006	**1,340**	**2,620**
	12/8/2006	**1,370**	**3,010**
	2/28/2007	**1,310**	**2,840**
	7/30/2007	**1,440**	**3,010**
	1/22/2008	**1,630**	**2,730**
	7/7/2008	**1,480**	**2,910**
	1/29/2009	**1,510**	**2,870**
	8/27/2009	**1,500**	**2,850**
	2/18/2010	**1,140**	**2,800**
	8/19/2010	**1,610**	**2,840**
	2/15/2011	**1,970**	**2,850**
	8/4/2011	**1,770**	**3,060**
	2/2/2012	**1,550**	**3,470**
	1/29/2013	**1,850**	**3,300**
	7/30/2013	**1,640**	**3,550**
	1/15/2014	**1,860**	**3,730**
	7/16/2014	**2,100**	**5,180**
	1/14/2015	**2,000**	**4,690**
	1/28/2016	**2,430**	**3,500**
	7/20/2016	**2,620**	**6,220**
	1/12/2017	**3,290**	**6,250**
	4/10/2017	NS	NS
	7/14/2017	**2,750**	**6,700**
	1/12/2018	**2,940**	**5,030**
	7/5/2018	**3,170**	**5,450**
	1/9/2019	**3,320**	**4,580**
	7/17/2019	**3,400**	**5,510**
	1/21/2020	**3,540**	**6,040**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-1-MW			
	01/06	**1,382**	**2,835**
	03/06	**1,551**	**3,139**
	6/13/2006	**1,550**	**3,570**
	9/13/2006	**1,910**	**3,270**
	12/8/2006	**1,810**	**3,090**
	2/28/2007	**1,600**	**3,530**
	7/30/2007	**1,830**	**3,480**
	1/22/2008	**2,090**	**3,390**
	7/7/2008	**1,960**	**3,780**
	1/29/2009	**1,870**	**4,070**
	8/28/2009	**2,480**	**4,050**
	2/19/2010	**1,850**	**4,480**
	8/19/2010	**2,600**	**4,440**
	2/15/2011	**2,630**	**4,960**
	8/4/2011	**2,890**	**5,740**
	2/2/2012	**2,740**	**5,900**
	1/28/2016	NS	NS
	7/20/2016	**2,440**	**5,980**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**3,650**	**8,630**
	1/12/2018	**3,410**	**6,190**
	7/5/2018	**4,300**	**6,910**
	1/9/2019	**4,850**	**6,190**
	7/17/2019	**5,140**	**7,020**
	1/21/2020	**5,020**	**8,150**
44-J-2-MW			
	01/06	**1,380**	**2,870**
	03/06	**1,911**	**3,745**
	6/13/2006	**1,760**	**3,910**
	9/13/2006	**2,230**	**3,790**
	12/8/2006	**2,270**	**3,660**
	2/28/2007	**1,820**	**3,770**
	7/30/2007	**2,090**	**4,050**
	1/22/2008	**2,040**	**3,800**
	7/7/2008	**2,130**	**4,290**
	1/29/2009	**2,260**	**4,800**
	8/28/2009	**2,820**	**5,030**
	2/18/2010	**2,280**	**5,840**
	8/20/2010	**2,930**	**5,900**
	2/15/2011	**3,000**	**5,780**
	8/5/2011	**3,090**	**13,200**
	2/2/2012	**3,200**	**7,600**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**8,680**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/14/2017	**4,160**	**10,000**
	1/12/2018	**4,560**	**7,820**
	7/5/2018	**5,050**	**8,000**
	1/9/2019	**4,930**	**7,020**
	7/17/2019	**5,170**	**7,870**
	1/21/2020	**3,830**	**6,420**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
44-J-3-MW			
	9/13/2006	**2,580**	**4,850**
	12/8/2006	**2,690**	**4,790**
	8/28/2009	**3,330**	**5,820**
	2/18/2010	**2,580**	**4,980**
	8/20/2010	**3,430**	**5,940**
	2/15/2011	**3,660**	**6,340**
	8/2/2011	**3,090**	**5,970**
	2/2/2012	**2,810**	**5,640**
	1/28/2016	NS	NS
	7/20/2016	**3,630**	**7,810**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**3,960**	**9,150**
	1/12/2018	**4,800**	**8,420**
	7/5/2018	**5,290**	**9,230**
	1/9/2019	**4,300**	**6,330**
	7/17/2019	**5,340**	**8,680**
	1/21/2020	**4,720**	**7,720**
44-J-4-MW			
	9/13/2006	**1,820**	**3,620**
	12/8/2006	**2,220**	**3,880**
	8/27/2009	**2,090**	**3,810**
	2/18/2010	**1,730**	**4,160**
	8/20/2010	**2,300**	**4,500**
	2/15/2011	**2,400**	**4,500**
	8/2/2011	**2,510**	**4,300**
	2/3/2012	**2,160**	**5,150**
	1/28/2016	NS	NS
	7/20/2016	**3,080**	**6,110**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,750**	**6,260**
	1/12/2018	**3,660**	**7,250**
	7/5/2018	**4,520**	**7,430**
	1/9/2019	**4,470**	**6,130**
	7/17/2019	**4,240**	**6,850**
	1/21/2020	**6,120**	**10,500**
44-J-5-MW			
	9/13/2006	**1,740**	**3,360**
	12/8/2006	**1,570**	**3,260**
	8/27/2009	**1,650**	**3,870**
	2/19/2010	**1,660**	**3,940**
	8/20/2010	**2,150**	**4,260**
	2/15/2011	**2,530**	**4,030**
	8/4/2011	**2,430**	**4,320**
	2/2/2012	**2,260**	**4,920**
	1/28/2016	NS	NS
	7/20/2016	**2,710**	**5,470**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/20/2017	**2,930**	**6,780**
	1/12/2018	**3,500**	**6,230**
	7/5/2018	**4,060**	**6,600**
	1/9/2019	**3,970**	**5,690**
	7/17/2019	**4,200**	**6,810**
	1/21/2020	**4,210**	**6,780**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-1-MW			
	01/06	**994**	**1,795**
	03/06	**1,686**	**2,951**
	6/14/2006	**2,580**	**5,290**
	9/12/2006	**1,990**	**4,110**
	12/7/2006	**3,740**	**7,960**
	2/28/2007	**3,650**	**8,130**
	7/30/2007	**3,770**	**9,480**
	1/22/2008	**3,850**	**6,250**
	7/7/2008	**3,770**	**7,140**
	1/28/2009	**3,810**	**8,230**
	8/27/2009	**3,710**	**6,780**
	2/18/2010	**3,150**	**6,720**
	8/17/2010	**4,090**	**6,520**
	2/15/2011	**4,150**	**6,800**
	8/2/2011	**1,960**	**8,390**
	2/2/2012	**3,520**	**9,160**
	1/28/2016	NS	NS
	7/20/2016	**2,690**	**6,540**
	1/12/2017	**2,860**	**3,340**
	4/10/2017	NS	NS
	7/20/2017	**2,580**	**5,020**
	1/12/2018	**2,300**	**4,650**
	7/5/2018	**2,530**	**4,220**
	1/9/2019	**2,680**	**3,650**
	7/17/2019	**3,360**	**4,820**
	1/21/2020	**1,050**	**1,970**
45-E-2-MW			
	01/06	98	601
	03/06	76	600
	6/14/2006	85	576
	9/12/2006	81	529
	12/7/2006	82	560
	2/28/2007	**1,170**	**2,210**
	7/30/2007	**1,260**	**2,290**
	1/22/2008	**1,240**	**2,100**
	7/7/2008	**1,310**	**2,300**
	1/28/2009	**1,280**	**2,540**
	8/26/2009	**322**	880
	2/18/2010	**460**	**1,160**
	8/18/2010	144	612
	2/15/2011	124	629
	8/2/2011	**1,450**	**3,290**
	2/2/2012	**738**	**1,620**
	1/28/2016	NS	NS
	7/20/2016	170	676
	1/12/2017	**2,370**	**4,320**
	4/10/2017	NS	NS
	7/20/2017	**1,720**	**3,780**
	1/12/2018	**718**	**3,050**
	7/5/2018	**1,790**	**3,130**
	1/9/2019	**1,660**	**3,040**
	7/17/2019	**1,830**	**2,880**
	1/21/2020	**1,660**	**3,060**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-E-3-MW			
	2/28/2007	**3,360**	**6,800**
	7/26/2007	**3,780**	**9,560**
	1/22/2008	**3,660**	**6,030**
	7/7/2008	**3,590**	**7,750**
	1/28/2009	**3,820**	**8,410**
	8/26/2009	**3,520**	**6,870**
	2/18/2010	**3,270**	**7,990**
	8/18/2010	**4,060**	**6,590**
	2/15/2011	**4,320**	**6,820**
	8/2/2011	**1,960**	**8,490**
	2/3/2012	**3,920**	**8,480**
	1/28/2016	NS	NS
	7/20/2016	**2,870**	**6,790**
	1/11/2017	**2,920**	**6,030**
	4/10/2017	NS	NS
	7/20/2017	**2,870**	**5,620**
	1/12/2018	**2,990**	**4,940**
	7/5/2018	**3,360**	**5,750**
	1/9/2019	**3,760**	**5,240**
	7/17/2019	**4,010**	**6,440**
	1/23/2020	**4,260**	**6,880**
45-F-1-MW			
	01/06	**619**	**1,270**
	03/06	**714**	**1,394**
	6/13/2006	**1,500**	**3,620**
	9/12/2006	**983**	**1,650**
	12/8/2006	**1,300**	**2,840**
	2/28/2007	**1,430**	**3,160**
	7/30/2007	**1,550**	**2,610**
	1/22/2008	**1,530**	**2,400**
	7/7/2008	**1,380**	**2,610**
	1/29/2009	**1,420**	**2,450**
	8/27/2009	**1,380**	**2,140**
	2/18/2010	**655**	**1,980**
	8/18/2010	**1,160**	**1,960**
	2/15/2011	**1,020**	**1,690**
	8/2/2011	**1,270**	**2,650**
	2/3/2012	**1,090**	**2,500**
	1/28/2016	NS	NS
	7/20/2016	**632**	**1,760**
	1/12/2017	**1,010**	**1,900**
	4/10/2017	NS	NS
	7/20/2017	**751**	**1,700**
	1/12/2018	**896**	**1,990**
	7/5/2018	**923**	**1,840**
	1/9/2019	**901**	**1,840**
	7/17/2019	**1,060**	**1,770**
	1/21/2020	**712**	**1,270**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
45-FF-MW			
	01/06	**613**	**1,277**
	03/06	**3,090**	**5,086**
	6/13/2006	**3,870**	**11,500**
	9/12/2006	**4,610**	**7,280**
	12/7/2006	**4,910**	**10,600**
	2/28/2007	**5,060**	**8,960**
	2/28/2007	**4,890**	**11,100**
	7/30/2007	**5,020**	**8,780**
	1/22/2008	**5,160**	**9,100**
	7/7/2008	**5,220**	**9,870**
	1/28/2009	**4,900**	**8,540**
	8/27/2009	**5,760**	**9,120**
	2/18/2010	**3,210**	**7,340**
	8/18/2010	**5,830**	**9,360**
	2/15/2011	**6,000**	**10,200**
	8/4/2011	**5,510**	**12,100**
	2/2/2012	**4,360**	**9,680**
	1/28/2016	NS	NS
	7/20/2016	**3,990**	**9,940**
	1/12/2017	**4,800**	**11,200**
	4/10/2017	NS	NS
	7/20/2017	**4,170**	**8,030**
	1/12/2018	**4,820**	**8,280**
	7/5/2018	**5,310**	**9,090**
	1/9/2019	**5,080**	**6,690**
	7/17/2019	**6,060**	**7,320**
	1/21/2020	**4,320**	**7,510**
58-B-1-MW			
	01/06	**836**	**1,624**
	3/6/2020	**1,874**	**3,138**
	6/14/2006	**976**	**2,310**
	9/12/2006	**3,440**	**5,290**
	12/7/2006	**3,230**	**7,600**
	2/28/2007	**3,350**	**7,370**
	7/26/2007	**4,680**	**8,890**
	1/22/2008	**3,220**	**5,110**
	7/7/2008	**2,980**	**6,110**
	1/28/2009	**3,150**	**6,330**
	8/26/2009	**3,320**	**5,820**
	2/18/2010	**2,850**	**6,710**
	8/19/2010	**4,120**	**9,970**
	2/15/2011	**4,180**	**6,850**
	8/2/2011	**5,240**	**11,700**
	2/6/2012	**5,510**	**10,000**
	1/28/2016	NS	NS
	7/22/2016	**3,550**	**8,460**
	1/13/2017	**7,510**	**9,410**
	4/10/2017	NS	NS
	7/20/2017	**5,480**	**9,230**
	1/12/2018	**5,250**	**8,620**
	7/5/2018	**6,440**	**10,000**
	1/7/2019	**5,240**	**8,120**
	7/15/2019	**6,180**	**9,750**
	1/21/2020	**6,590**	**10,200**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
58-B-2-MW			
	01/06	**1,103**	**2,024**
	03/06	**650**	**1,329**
	6/14/2006	**4,510**	**8,700**
	9/12/2006	**8,220**	**19,000**
	12/7/2006	**4,700**	**10,700**
	2/28/2007	**5,900**	**10,800**
	7/26/2007	**6,270**	**12,200**
	1/22/2008	**6,200**	**11,300**
	7/7/2008	**5,830**	**11,600**
	1/28/2009	**5,260**	**10,600**
	8/26/2009	**6,260**	**10,800**
	2/18/2010	**4,870**	**9,680**
	8/19/2010	**6,640**	**10,200**
	2/15/2011	**4,100**	**7,390**
	8/2/2011	**1,410**	**13,600**
	2/6/2012	**5,480**	**13,600**
	1/28/2016	**3,550**	**7,440**
	7/22/2016	**2,740**	**6,130**
	1/13/2017	**4,190**	**8,700**
	4/10/2017	NS	NS
	7/20/2017	**3,340**	**5,910**
	1/12/2018	**3,470**	**5,860**
	7/5/2018	**3,900**	**6,410**
	1/7/2019	**4,190**	**5,470**
	7/15/2019	**3,850**	**6,310**
	1/21/2020	**3,770**	**6,280**
58-B-3-MW			
	2/28/2007	**607**	**2,150**
	7/26/2007	**1,200**	**2,340**
	1/22/2008	**1,250**	**2,010**
	7/7/2008	**1,140**	**2,480**
	1/28/2009	**1,300**	**2,400**
	8/26/2009	**1,370**	**2,320**
	2/19/2010	**1,070**	**2,570**
	8/19/2010	**1,450**	**2,340**
	2/15/2011	**1,680**	**2,500**
	8/2/2011	**1,450**	**2,920**
	2/3/2012	**1,330**	**2,660**
	1/29/2013	**1,360**	**2,370**
	7/30/2013	**1,230**	**2,540**
	1/15/2014	**1,250**	**2,920**
	7/16/2014	**1,450**	**4,360**
	1/14/2015	**312**	**938**
	7/15/2015	**715**	**1,770**
	1/28/2016	**688**	**1,660**
	7/22/2016	**570**	**1,290**
	1/10/2017	**683**	**1,830**
	4/10/2017	NS	NS
	7/20/2017	**666**	**1,440**
	1/12/2018	**791**	**1,290**
	7/6/2018	**976**	**1,580**
	1/7/2019	**900**	**2,070**
	7/12/2019	**1,470**	**2,520**
	1/23/2020	**1,570**	**2,710**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-2			
	8/10/2015	204	**1,950**
	1/28/2016	NS	NS
	7/21/2016	NS	NS
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/6/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS
	7/16/2019	NS	NS
	10/17/2019	NS	NS
	1/22/2020	NS	NS
	4/13/2020	NS	NS
MW-3			
	8/10/2015	249	**1,100**
	1/27/2016	**484**	**1,070**
	7/21/2016	**486**	**1,430**
	1/11/2017	**564**	**1,410**
	4/10/2017	**605**	**1,960**
	7/19/2017	**572**	**1,400**
	10/5/2017	**569**	**1,520**
	1/12/2018	**566**	**1,410**
	4/5/2018	**589**	**1,300**
	7/3/2018	**593**	**1,310**
	10/4/2018	**626**	**1,310**
	1/8/2019	194	619
	4/9/2019	**636**	**1,370**
	7/16/2019	**475**	**1,320**
	10/17/2019	**502**	**1,350**
	1/22/2020	**696**	**2,390**
	4/13/2020	**603**	**1,400**
MW-4			
	8/10/2015	240	**1,850**
	1/27/2016	250	941
	7/21/2016	**355**	**2,260**
	1/11/2017	**353**	**1,260**
	4/10/2017	NS	NS
	7/20/2017	**325**	1,000
	10/5/2017	**347**	**1,010**
	1/12/2018	**345**	968
	4/6/2018	**350**	413
	7/3/2018	**338**	831
	10/4/2018	**350**	883
	1/8/2019	258	426
	4/9/2019	**377**	877
	7/16/2019	269	889
	10/17/2019	**325**	902
	1/22/2020	**375**	578
	4/13/2020	**323**	939

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-5			
	8/10/2015	**837**	**2,960**
	1/28/2016	**459**	**2,130**
	7/21/2016	**397**	**1,690**
	1/11/2017	**364**	**1,400**
	4/10/2017	**346**	**1,560**
	7/19/2017	**309**	**1,170**
	10/5/2017	**302**	**1,040**
	1/12/2018	293	**1,130**
	4/5/2018	289	**1,140**
	7/3/2018	274	**1,020**
	10/4/2018	278	**1,050**
	1/8/2019	244	**1,050**
	4/9/2019	300	257
	7/16/2019	219	**1,120**
	10/17/2019	257	1,000
	1/22/2020	262	964
	4/13/2020	265	986
MW-6			
	8/10/2015	**578**	**2,180**
	1/28/2016	**484**	**2,090**
	7/21/2016	**450**	**1,590**
	1/11/2017	**441**	**1,330**
	4/10/2017	**468**	**1,760**
	7/18/2017	**439**	**1,650**
	10/5/2017	**407**	**1,530**
	1/12/2018	**408**	**1,490**
	4/5/2018	**411**	**1,430**
	7/3/2018	**402**	**1,340**
	10/4/2018	**404**	**1,450**
	1/8/2019	**372**	**1,510**
	4/9/2019	**418**	**1,500**
	7/15/2019	**395**	**1,470**
	10/17/2019	**383**	**1,490**
	1/23/2020	**488**	**1,550**
	4/14/2020	**387**	**1,530**
MW-7			
	8/10/2015	**772**	**3,230**
	1/28/2016	260	**2,620**
	7/21/2016	**524/508**	**2,510/2,410**
	1/12/2017	NS	NS
	4/10/2017	NS	NS
	7/19/2017	NS	NS
	10/5/2017	NS	NS
	1/12/2018	NS	NS
	4/5/2018	NS	NS
	7/3/2018	NS	NS
	10/4/2018	NS	NS
	1/8/2019	NS	NS
	4/10/2019	NS	NS
	7/15/2019	NS	NS
	10/17/2019	NS	NS
	1/23/2020	NS	NS
	4/14/2020	NS	NS

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-8			
	8/10/2015	**711**	**2,430**
	1/28/2016	**763**	**2,310**
	7/21/2016	**758**	**2,140**
	1/13/2017	**985**	**2,410**
	4/7/2017	**933**	**2,120**
	7/17/2017	**845**	**2,280**
	10/4/2017	**803**	**2,210**
	1/12/2018	**813**	**2,250**
	4/5/2018	**839**	**2,300**
	7/5/2018	**868**	**2,350**
	10/3/2018	**888**	**2,490**
	1/8/2019	**852**	**2,160**
	4/5/2019	**1,060**	**2,460**
	7/15/2019	**884**	**2,390**
	10/16/2019	**919**	**2,400**
	1/21/2020	**967**	**2,540**
	4/14/2020	**750**	**2,370**
MW-9			
	8/10/2015	**1,650**	**3,390**
	1/28/2016	**2,160**	**4,410**
	7/21/2016	**2,140**	**6,790**
	1/13/2017	**3,520**	**4,540**
	4/7/2017	**3,070**	**6,760**
	7/17/2017	**2,830**	**4,930**
	10/4/2017	**2,230**	**4,730**
	1/12/2018	**2,540**	**4,380**
	4/5/2018	**2,930**	**4,690**
	7/5/2018	**2,880**	**4,250**
	10/3/2018	**2,910**	**4,270**
	1/7/2019	**2,620**	807
	4/5/2019	**1,200**	**4,230**
	7/15/2019	**2,620**	**4,240**
	10/16/2019	**2,520**	**4,610**
	1/21/2020	**2,740**	**4,010**
	4/14/2020	**1,800**	**4,100**
MW-10			
	8/10/2015	**3,480**	**7,980**
	1/28/2016	**5,320**	**9,850**
	7/20/2016	**5,920**	**12,400**
	1/12/2017	**6,360**	**10,500**
	4/7/2017	**5,930**	**12,700**
	7/18/2017	**5,320**	**9,720**
	10/5/2017	**5,190**	**8,560**
	1/12/2018	**5,350**	**9,650**
	4/5/2018	**5,470**	**8,630**
	7/3/2018	**5,340**	**11,000**
	10/3/2018	**5,880**	**8,570**
	1/8/2019	**5,130**	**7,050**
	4/5/2019	**5,760**	**8,100**
	7/15/2019	**4,860**	**8,210**
	10/16/2019	**4,980**	**8,520**
	1/23/2020	**5,230**	**8,580**
	4/14/2020	**3,260**	**8,730**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-11			
	8/10/2015	**458**	**3,260**
	1/28/2016	**5,280**	**5,720**
	7/21/2016	**6,830**	**16,100**
	1/11/2017	**7,310**	**18,800**
	4/10/2017	**7,760**	**17,100**
	7/18/2017	**7,620**	**12,700**
	10/5/2017	**7,110**	**12,600**
	1/12/2018	**8,120**	**12,700**
	4/5/2018	**7,990**	**11,000**
	7/3/2018	**7,940**	**11,800**
	10/4/2018	**8,310**	**12,000**
	1/8/2019	**8,240**	**9,730**
	4/9/2019	**7,840**	**11,700**
	7/15/2019	**7,680**	**11,800**
	10/17/2019	**7,590**	**12,400**
	1/23/2020	**7,760**	**12,300**
	4/14/2020	**7,620**	**13,400**
MW-12			
	8/10/2015	**7,680**	**20,500**
	1/28/2016	**12,800**	**24,400**
	7/20/2016	**12,000**	**27,500**
	1/11/2017	**16,400**	**24,100**
	4/7/2017	**13,900**	**28,900**
	7/18/2017	**13,600**	**23,000**
	10/5/2017	**14,000**	**23,000**
	1/12/2018	**13,100**	**21,400**
	4/5/2018	**13,300**	**19,400**
	7/3/2018	**13,200**	**20,200**
	10/4/2018	**15,000**	**24,400**
	1/8/2019	**13,900**	**14,000**
	4/10/2019	**14,100**	**21,700**
	7/15/2019	**11,000**	**22,600**
	10/16/2019	**12,600**	**23,400**
	1/23/2020	**12,700**	**20,600**
	4/14/2020	**13,600**	**23,400**
MW-13			
	8/10/2015	**1,740**	**4,100**
	1/28/2016	**1,850**	**4,110**
	7/21/2016	**1,650**	**5,300**
	1/11/2017	**1,270**	**1,660**
	4/10/2017	**1,890**	**4,760**
	7/19/2017	**1,730**	**4,010**
	10/5/2017	**1,910**	**5,260**
	1/12/2018	**1,750**	**3,920**
	4/6/2018	**1,750**	**3,920**
	7/3/2018	**2,280**	**4,560**
	10/4/2018	**2,200**	**3,900**
	1/8/2019	**1,880**	**3,810**
	4/10/2019	**2,020**	**4,160**
	7/16/2019	**1,400**	**4,440**
	10/17/2019	**1,960**	**3,720**
	1/22/2020	**1,810**	**5,110**
	4/13/2020	**1,580**	**4,420**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-14			
	8/11/2015	**989**	**3,040**
	1/27/2016	**1,420**	**2,560**
	7/21/2016	**1,480**	**3,800**
	1/11/2017	**1,470**	**2,890**
	4/10/2017	**1,530**	**4,400**
	7/19/2017	**1,500**	**3,330**
	10/5/2017	**1,510**	**3,460**
	1/12/2018	**1,590**	**2,910**
	4/6/2018	**1,720**	**1,270**
	7/3/2018	**1,540**	**2,660**
	10/4/2018	**1,690**	**2,620**
	1/8/2019	**1,630**	**2,890**
	4/9/2019	**1,610**	**2,940**
	7/16/2019	**1,110**	**3,120**
	10/17/2019	**1,670**	**2,940**
	1/22/2020	**1,880**	**3,290**
	4/13/2020	**1,130**	**3,130**
MW-15			
	8/11/2015	**600**	**1,730**
	1/28/2016	**617**	**1,180**
	7/21/2016	**554**	**1,370**
	1/11/2017	**710**	**1,640**
	4/10/2017	**785**	**2,030**
	7/19/2017	**652**	**1,220**
	10/5/2017	**831**	**1,690**
	1/12/2018	**873**	**1,770**
	4/6/2018	**877**	**1,900**
	7/3/2018	**914**	**1,650**
	10/4/2018	**1,030**	**1,740**
	1/8/2019	**995**	**2,290**
	4/10/2019	**1,110**	**1,740**
	7/16/2019	**1,300**	**1,800**
	10/17/2019	**1,010**	**1,850**
	1/22/2020	**1,290**	**2,180**
	4/13/2020	**1,010**	**1,960**
MW-16			
	8/11/2015	**435**	**1,410**
	1/28/2016	**323**	**1,020**
	7/21/2016	195	776
	1/11/2017	**472**	**1,180**
	4/10/2017	**396**	**1,400**
	7/19/2017	**444**	**1,100**
	10/5/2017	**426**	**1,210**
	1/12/2018	**364**	**1,100**
	4/6/2018	**432**	**1,310**
	7/3/2018	**430**	**1,160**
	10/4/2018	**474**	**1,210**
	1/8/2019	**468**	**1,260**
	4/10/2019	**508**	**1,240**
	7/16/2019	**301**	**1,060**
	10/17/2019	**393**	**1,110**
	1/22/2020	**525**	**1,270**
	4/13/2020	**310**	**1,030**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-17			
	8/12/2015	**5,800**	**13,400**
	1/28/2016	**4,400**	823
	7/21/2016	**3,370**	**7,900**
	1/11/2017	**9,760**	**16,200**
	4/10/2017	**9,620**	**20,400**
	7/19/2017	**8,160**	**14,400**
	10/6/2017	**11,400**	**18,800**
	1/12/2018	**10,100**	**15,300**
	4/6/2018	**9,590**	**14,800**
	7/3/2018	**8,570**	**15,000**
	10/4/2018	**11,300**	**17,700**
	1/8/2019	**10,100**	**11,100**
	4/10/2019	**9,440**	**14,500**
	7/16/2019	**7,880**	**13,100**
	10/17/2019	**9,620**	**15,300**
	1/22/2020	**9,410**	**15,100**
	4/13/2020	**7,870**	**13,800**
MW-18			
	8/12/2015	**13,400**	**26,600**
	1/28/2016	**13,900**	**25,300**
	7/20/2016	**8,000**	**18,900**
	1/12/2017	**14,200**	**33,700**
	4/7/2017	**19,100**	**37,800**
	7/18/2017	**13,900**	**23,500**
	10/6/2017	**19,000**	**52,900**
	1/12/2018	**18,800**	**30,300**
	4/5/2018	**20,000**	**30,400**
	7/3/2018	**22,000**	**38,500**
	10/4/2018	**21,100**	**31,600**
	1/8/2019	**17,000**	**19,000**
	4/9/2019	**24,600**	**33,300**
	7/15/2019	**21,000**	**33,100**
	10/16/2019	**19,900**	**37,300**
	1/23/2020	**21,400**	**34,800**
	4/14/2020	**18,500**	**34,000**
MW-19			
	8/12/2015	**4,780**	**11,300**
	1/28/2016	**5,130**	**10,100**
	7/20/2016	**5,160**	**10,200**
	1/12/2017	**6,370**	**9,560**
	4/7/2017	**6,000**	**13,600**
	7/18/2017	**5,310**	**9,840**
	10/6/2017	**5,290**	**9,620**
	1/12/2018	**6,160**	**10,300**
	4/5/2018	**6,600**	**9,880**
	7/5/2018	**6,580**	**11,500**
	10/4/2018	**6,980**	**11,600**
	1/8/2019	**6,570**	**9,300**
	4/9/2019	**7,000**	**10,500**
	7/15/2019	**6,860**	**11,000**
	10/16/2019	**7,160**	**12,800**
	1/23/2020	**7,540**	**13,200**
	4/14/2020	**7,170**	**13,300**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-20			
	8/12/2015	**995**	**2,760**
	1/28/2016	**1,200**	**2,390**
	7/20/2016	**1,060**	**2,920**
	1/12/2017	**1,500**	**1,970**
	4/7/2017	**1,200**	**3,300**
	7/18/2017	**1,110**	**2,540**
	10/6/2017	**1,100**	**2,220**
	1/12/2018	**1,130**	**2,410**
	4/5/2018	**1,100**	**2,130**
	7/5/2018	**1,150**	**2,160**
	10/3/2018	**1,340**	**2,490**
	1/8/2019	**1,070**	**2,180**
	4/5/2019	**1,430**	**2,410**
	7/15/2019	**1,270**	**2,330**
	10/16/2019	**1,260**	**2,500**
	1/21/2020	**1,330**	**2,440**
	4/14/2020	**1,140**	**2,970**
MW-21			
	7/21/2016	**7,920**	**19,400**
	1/11/2017	**7,360**	**11,800**
	4/10/2017	**6,600**	**17,900**
	7/19/2017	**5,480**	**12,200**
	10/6/2017	**7,210**	**13,500**
	1/12/2018	**6,800**	**10,900**
	4/6/2018	**7,630**	**11,000**
	7/3/2018	**6,860**	**11,100**
	10/4/2018	**7,400**	**11,400**
	1/8/2019	**7,530**	**9,420**
	4/10/2019	**6,970**	**11,000**
	7/16/2019	**6,720**	**11,000**
	10/17/2019	**7,010**	**11,000**
	1/22/2020	**6,900**	**10,300**
	4/13/2020	**6,610**	**10,200**
MW-22			
	3/3/2017	**12,100**	**19,000**
	4/10/2017	**14,000**	**33,000**
	7/19/2017	**8,720**	**17,400**
	10/6/2017	**11,400**	**20,200**
	1/12/2018	**10,400**	**16,200**
	4/6/2018	**10,500**	**17,200**
	7/3/2018	**10,300**	**16,300**
	10/4/2018	**14,200**	**18,700**
	1/8/2019	**12,000**	**10,900**
	4/10/2019	**10,900**	**16,200**
	7/16/2019	**11,300**	**18,000**
	10/17/2019	**12,400**	**20,600**
	1/22/2020	**11,700**	**16,800**
	4/13/2020	**11,700**	**19,800**
MW-23			
	7/21/2016	**1,430**	**3,050**
	1/11/2017	**2,120**	**4,130**
	4/10/2017	**3,010**	**8,750**
	7/19/2017	**1,680**	**3,550**
	10/6/2017	**4,520**	**7,370**
	1/12/2018	**5,230**	**9,340**
	4/6/2018	**6,830**	**10,100**
	7/3/2018	**4,390**	**6,870**
	10/4/2018	**6,090**	**8,980**
	1/8/2019	**7,910**	**9,780**
	4/10/2019	**6,540**	**10,200**
	7/16/2019	**3,420**	**9,780**
	10/17/2019	**3,840**	**10,200**
	1/22/2020	**7,140**	**10,400**
	4/13/2020	**3,540**	**7,780**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-24			
	7/20/2016	**3,720**	**8,910**
	1/12/2017	**4,740**	**8,690**
	4/7/2017	**4,520**	**11,200**
	7/18/2017	**3,880**	**8,600**
	10/6/2017	**3,930**	**8,500**
	1/12/2018	**4,060**	**8,170**
	4/5/2018	**3,980**	**7,080**
	7/3/2018	**4,140**	**8,210**
	10/4/2018	**4,850**	**8,870**
	1/8/2019	**3,320**	**1,020**
	4/9/2019	**4,370**	**8,250**
	7/15/2019	**4,180**	**8,860**
	10/16/2019	**4,150**	**8,980**
	1/23/2020	**4,470**	**8,980**
	4/14/2020	**2,770**	**9,190**
MW-25			
	7/21/2016	**560**	**1,510**
	1/11/2017	**24,400**	**29,700**
	4/10/2017	**23,100**	**49,600**
	7/18/2017	**18,800**	**32,800**
	10/6/2017	**18,300**	**33,200**
	1/12/2018	**20,900**	**31,400**
	4/5/2018	**22,400**	**32,800**
	7/3/2018	**23,600**	**37,600**
	10/4/2018	**26,500**	**39,000**
	1/8/2019	**23,500**	**29,800**
	4/9/2019	**24,100**	**33,100**
	7/15/2019	**23,200**	**33,200**
	10/17/2019	**20,900**	**24,800**
	1/23/2020	**25,200**	**36,400**
	4/14/2020	**24,200**	**38,500**
MW-26			
	1/12/2017	**1,220**	**2,840**
	4/7/2017	**1,190**	**3,160**
	7/18/2017	**1,140**	**3,060**
	10/6/2017	**1,120**	**2,570**
	1/12/2018	**1,160**	**2,860**
	4/5/2018	**1,230**	**2,730**
	7/5/2018	**1,210**	**2,810**
	10/4/2018	**1,340**	**2,750**
	1/8/2019	**1,190**	**2,740**
	4/9/2019	**1,340**	**2,830**
	7/15/2019	**1,360**	**2,960**
	10/16/2019	**1,340**	**3,250**
	1/23/2020	**1,460**	**3,220**
	4/14/2020	**1,230**	**3,260**
MW-27			
	7/20/2016	**1,340**	**3,080**
	1/11/2017	**2,400**	**4,160**
	4/7/2017	**2,380**	**4,520**
	7/18/2017	**2,110**	**4,150**
	10/6/2017	**2,280**	**4,610**
	1/12/2018	**2,260**	**4,220**
	4/5/2018	**2,400**	**4,250**
	7/3/2018	**2,510**	**4,790**
	10/3/2018	**3,030**	**4,700**
	1/8/2019	**2,420**	**4,110**
	4/5/2019	**2,830**	**4,490**
	7/15/2019	**2,540**	**4,440**
	10/16/2019	**2,490**	**4,160**
	1/21/2020	**2,420**	**4,230**
	4/14/2020	**1,770**	**4,170**

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-28			
	1/10/2017	**917**	**2,520**
	4/7/2017	**1,090**	**2,650**
	7/17/2017	**1,190**	**2,730**
	10/6/2017	**1,240**	**3,270**
	1/12/2018	**1,470**	**1,280**
	4/5/2018	**1,540**	**2,660**
	7/6/2018	**1,610**	**2,540**
	10/3/2018	**1,760**	**3,020**
	1/7/2019	**1,510**	**3,050**
	4/5/2019	**851**	**3,260**
	7/15/2019	**2,180**	**3,490**
	10/16/2019	**2,410**	**3,780**
	1/23/2020	**2,450**	**4,100**
	4/10/2020	**2,400**	**4,080**
MW-29			
	1/10/2017	**354**	946
	4/7/2017	**386**	**1,160**
	7/17/2017	**393**	**1,060**
	10/6/2017	**374**	**1,100**
	1/12/2018	**397**	601
	4/5/2018	**396**	**1,100**
	7/6/2018	**397**	860
	10/3/2018	**409**	**1,070**
	1/7/2019	**359**	**7,270**
	4/5/2019	**508**	**1,100**
	7/15/2019	**500**	**1,140**
	10/16/2019	**501**	**1,200**
	1/23/2020	**535**	**1,250**
	4/10/2020	**552**	**1,270**
MW-30			
	7/19/2017	**2,360**	**4,540**
	10/6/2017	**2,420**	**5,270**
	1/12/2018	**2,350**	**4,160**
	4/6/2018	**2,240**	**1,310**
	7/3/2018	**2,280**	**3,650**
	10/4/2018	**2,550**	**3,820**
	1/8/2019	**2,460**	**3,860**
	4/10/2019	**2,400**	**4,160**
	7/16/2019	**1,500**	**4,200**
	10/17/2019	**2,340**	**3,880**
	1/22/2020	**2,520**	**4,290**
	4/14/2020	**1,300**	**3,960**
MW-31			
	7/18/2017	**7,980**	**13,600**
	10/6/2017	**8,540**	**16,600**
	1/12/2018	**10,700**	**16,400**
	4/5/2018	**11,700**	**17,700**
	7/3/2018	**12,100**	**19,800**
	10/4/2018	**12,800**	**19,500**
	1/8/2019	**11,100**	**10,300**
	4/5/2019	**11,800**	**16,200**
	7/15/2019	**10,900**	**16,600**
	10/16/2019	**10,500**	**17,900**
	1/23/2020	**11,700**	**17,100**
	4/14/2020	**9,960**	**17,900**
MW-32			
	4/10/2019	**373**	**1,170**
	7/15/2019	**314**	**1,090**
	10/15/2019	271	**1,110**
	1/23/2020	**327**	**1,080**
	4/10/2020	**342**	**1,130**

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
MW-33			
	4/10/2019	183	912
	7/15/2019	153	988
	10/15/2019	156	**1,040**
	1/23/2020	185	**1,010**
	4/10/2020	190	**1,100**
MW-34			
	4/10/2019	69.9	600
	7/15/2019	64.2	621
	10/15/2019	66.5	604
	1/23/2020	73.3	606
	4/10/2020	69.6	618
NM-MW-1			
	12/3/2015	266	**1,540**
	1/28/2016	283	**1,470**
	7/22/2016	294	**1,420**
	1/12/2017	**383**	**1,570**
	4/7/2017	291	**1,510**
	7/13/2017	287	**1,520**
	10/6/2017	271	**1,500**
	1/12/2018	271	933
	4/5/2018	263	**1,400**
	7/6/2018	275	**1,350**
	10/3/2018	279	**1,460**
	1/7/2019	256	**1,370**
	4/4/2019	**330**	**1,400**
	7/11/2019	291	**1,380**
	10/15/2019	281	**1,450**
	1/20/2020	286	**1,390**
	4/9/2020	277	**1,440**
NM-MW-2			
	12/3/2015	**640**	**2,620**
	1/28/2016	**658**	**1,920**
	7/22/2016	**638**	858
	1/12/2017	**790**	**1,770**
	4/7/2017	**656**	**1,590**
	7/13/2017	**653**	**1,340**
	10/6/2017	**650**	**1,410**
	1/12/2018	**639**	990
	4/5/2018	**610**	**1,210**
	7/6/2018	**679**	**1,160**
	10/3/2018	**674**	**1,270**
	1/7/2019	**616**	**1,210**
	4/4/2019	**736**	**1,230**
	7/11/2019	**397**	**1,330**
	10/15/2019	**666**	**1,240**
	1/20/2020	**643**	**1,240**
	4/9/2020	**734**	**1,270**
NM-MW-3			
	12/3/2015	**648**	**3,900**
	1/28/2016	**327**	**1,870**
	7/22/2016	121	524
	1/12/2017	224	581
	4/7/2017	161	564
	7/13/2017	186	592
	10/6/2017	276	626
	1/12/2018	221	501
	4/5/2018	180	601
	7/6/2018	220	625
	10/3/2018	246	708
	1/7/2019	**447**	**1,250**
	4/4/2019	259	653
	7/11/2019	184	581
	10/15/2019	183	596
	1/20/2020	241	649
	4/9/2020	255	721

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-4			
	12/3/2015	**739**	**2,960**
	1/28/2016	22.8	821
	7/22/2016	40.9	444
	1/12/2017	48.7	379
	4/7/2017	35.0	410
	7/13/2017	36.1	422
	10/6/2017	42.0	468
	1/12/2018	39	217
	4/5/2018	34	410
	7/6/2018	40.6	414
	10/3/2018	39.7	411
	1/7/2019	258	**1,240**
	4/4/2019	188	420
	7/11/2019	40.6	423
	10/15/2019	46.2	430
	1/20/2020	44.1	388
	4/9/2020	45.8	513
NM-MW-5			
	12/3/2015	DRY	DRY
	1/28/2016	144	**1,250**
	7/22/2016	129	**1,270**
	1/12/2017	182	**1,320**
	4/7/2017	145	**1,260**
	7/13/2017	147	**1,340**
	10/6/2017	144	**1,090**
	1/12/2018	133	893
	4/5/2018	134	**1,300**
	7/6/2018	140	**1,240**
	10/3/2018	138	**1,290**
	1/7/2019	142	**1,280**
	4/4/2019	175	**1,240**
	7/11/2019	149	**1,290**
	10/15/2019	170	**1,320**
	1/20/2020	152	**1,240**
	4/9/2020	158	**1,310**
NM-MW-6			
	12/2/2015	188	**1,240**
	1/28/2016	183	**1,060**
	7/22/2016	121	817
	1/12/2017	168	825
	4/7/2017	143	852
	7/13/2017	138	818
	10/6/2017	132	742
	1/12/2018	137	468
	4/5/2018	127	836
	7/6/2018	134	801
	10/3/2018	138	833
	1/7/2019	113	813
	4/4/2019	161	813
	7/12/2019	143	863
	10/15/2019	139	827
	1/20/2020	145	750
	4/9/2020	145	834

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
NM-MW-7			
	12/3/2015	**696**	**3,200**
	1/28/2016	**1,840**	**3,150**
	7/22/2016	**1,890**	**5,320**
	1/12/2017	**2,390**	**3,770**
	4/7/2017	**2,180**	**4,770**
	7/13/2017	**2,120**	**4,100**
	10/6/2017	**2,070**	**4,200**
	1/12/2018	**2,110**	**2,370**
	4/5/2018	**2,090**	**4,270**
	7/6/2018	**2,330**	**3,780**
	10/3/2018	**2,380**	**4,050**
	1/7/2019	**2,040**	**5,190**
	4/4/2019	**1,940**	**4,160**
	7/11/2019	**2,600**	**4,390**
	10/15/2019	**2,370**	**4,240**
	1/20/2020	**2,450**	**4,410**
	4/9/2020	**2,460**	**4,620**
NM-MW-8			
	3/3/2017	**4,870**	**9,740**
	4/7/2017	**4,870**	**12,800**
	7/13/2017	**5,010**	**9,040**
	10/4/2017	**5,000**	**10,900**
	1/12/2018	**5,260**	**5,240**
	4/5/2018	**5,110**	**9,160**
	7/6/2018	**5,960**	**9,620**
	10/3/2018	**6,260**	**11,000**
	1/7/2019	**4,630**	**8,040**
	4/4/2019	**6,690**	**10,100**
	7/11/2019	**6,200**	**9,310**
	10/15/2019	**7,120**	**10,700**
	1/20/2020	**6,220**	**10,400**
	4/9/2020	**6,680**	**11,700**
NM-MW-9			
	1/13/2017	NS	NS
	4/10/2017	NS	NS
	7/17/2017	224	776
	10/4/2017	263	813
	1/12/2018	221	717
	4/5/2018	234	804
	7/6/2018	252	785
	10/3/2018	258	799
	1/7/2019	**2,620**	**4,160**
	4/5/2019	297	786
	7/12/2019	264	797
	10/15/2019	243	812
	1/22/2020	**555**	**1,090**
	4/10/2020	263	833
NM-MW-10			
	1/10/2017	**314**	**1,550**
	4/7/2017	**355**	**1,570**
	7/17/2017	**308**	**1,600**
	10/4/2017	**302**	**1,550**
	1/12/2018	**314**	**1,050**
	4/5/2018	**301**	**1,620**
	7/6/2018	**308**	**1,450**
	10/3/2018	**315**	**1,520**
	1/7/2019	290	**1,530**
	4/4/2019	**396**	**1,670**
	7/12/2019	**354**	**1,680**
	10/15/2019	**340**	**1,670**
	1/20/2020	**357**	**1,620**
	4/10/2020	**367**	**1,720**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
NM-MW-11			
	1/10/2017	190	**2,100**
	4/7/2017	158	**1,980**
	7/17/2017	135	**2,020**
	10/4/2017	154	**1,940**
	1/12/2018	155	**1,710**
	4/5/2018	**699**	**1,920**
	7/6/2018	143	**1,820**
	10/3/2018	152	**1,920**
	1/7/2019	154	**1,840**
	4/4/2019	185	**1,870**
	7/12/2019	157	**1,980**
	10/15/2019	134	**1,530**
	1/20/2020	161	**1,870**
	4/9/2020	160	**1,990**
NM-MW-12			
	3/3/2017	**760**	**1,460**
	4/7/2017	**725**	**2,230**
	7/17/2017	**726**	**1,540**
	10/4/2017	**643**	**1,590**
	1/12/2018	**663**	**1,470**
	4/5/2018	**656**	**1,430**
	7/6/2018	**665**	**1,250**
	10/3/2018	**668**	**1,390**
	1/7/2019	**596**	**1,300**
	4/4/2019	**739**	**1,310**
	7/12/2019	**657**	524
	10/15/2019	**512**	**1,380**
	1/20/2020	NS	NS
	4/10/2020	591	**1,290**
NM-MW-13			
	3/3/2017	183	**1,020**
	4/7/2017	192	**1,110**
	7/17/2017	185	**1,100**
	10/4/2017	183	**1,100**
	1/12/2018	188	965
	4/5/2018	180	**1,090**
	7/6/2018	184	**1,050**
	10/3/2018	185	**1,110**
	1/7/2019	165	**1,070**
	4/4/2019	225	**1,090**
	7/12/2019	199	**1,090**
	10/15/2019	179	**1,100**
	1/20/2020	203	**1,060**
	4/9/2020	201	**1,090**
NM-MW-14			
	2/18/2020	24.4	457
	4/10/2020	25.7	482
NM-MW-15			
	2/18/2020	55.9	499
	4/9/2020	55.6	530
NM-MW-16			
	2/18/2020	NS	NS
	4/9/2020	NS	NS
NM-MW-17			
	2/18/2020	160	989
	4/9/2020	198	**1,070**
NM-MW-20			
	2/18/2020	21.8	372
	4/9/2020	21.0	408
NM-MW-21			
	2/18/2020	31.5	533
	4/9/2020	28.3	560

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
Non-Remedial Wells			
DHU-FWS			
	01/06	**564**	**3,082**
	03/06	**581**	**3,181**
	6/14/2006	**553**	**3,020**
	9/12/2006	**584**	**2,650**
	12/6/2006	**636**	**3,070**
	7/30/2007	**646**	**3,010**
	1/21/2008	**637**	**3,140**
	7/7/2008	**546**	**3,050**
	1/26/2009	**610**	**3,040**
	8/21/2009	**580**	**3,000**
	2/17/2010	NA	**3,000**
	2/18/2010	**401**	NA
	8/16/2010	**771**	**3,060**
	2/10/2011	**577**	**2,840**
	8/2/2011	**612**	**2,960**
	1/31/2012	**866**	**2,910**
	7/19/2016	**629**	**2,810**
	1/11/2017	**670**	**3,060**
	4/10/2017	NS	NS
	7/14/2017	**587**	**3,020**
	10/9/2017	**565**	**2,990**
	1/12/2018	**615**	**2,820**
	4/5/2018	**572**	**2,640**
	7/5/2018	**593**	**2,710**
	10/3/2018	**593**	**2,830**
	1/7/2019	**611**	**2,900**
	4/5/2019	**658**	**3,120**
	7/15/2019	**624**	**3,020**
	10/16/2019	**603**	**2,950**
	1/22/2020	NS	NS
	4/13/2020	**570**	**2,940**
DHU-Office			
	04/06	**376**	**2,434**
DHU- Office (CHRM)			
	04/06	**382**	**2,460**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Livermore			
	01/06	NS	NS
	03/06	**6,946**	**11,381**
	6/14/2006	**8,320**	**14,300**
	9/12/2006	**7,400**	**12,000**
	12/7/2006	**5,750**	**12,000**
	2/28/2007	**5,770**	**11,200**
	7/30/2007	**5,910**	**12,600**
	7/7/2008	**5,280**	**9,340**
	1/29/2009	**4,670**	**8,200**
	8/25/2009	**4,630**	**8,260**
	2/18/2010	**3,700**	**7,560**
	8/20/2010	**4,390**	**7,920**
	2/15/2011	**4,400**	**7,430**
	8/5/2011	**4,230**	**7,230**
	2/3/2012	**3,310**	**6,790**
	8/7/2012	**3,730**	NA
	1/30/2013	**3,810**	**6,080**
	7/31/2013	**3,630**	**6,240**
	1/15/2014	**3,450**	**5,580**
	7/16/2014	**3,190**	**6,830**
	1/14/2015	**3,200**	**6,490**
	7/17/2015	**5,380**	**11,500**
	1/29/2016	**3,110**	**4,530**
	7/21/2016	**3,040**	**5,710**
	1/11/2017	**2,940**	**4,970**
	4/10/2017	NS	NS
	7/19/2017	**2,870**	**4,800**
	10/9/2017	**2,700**	**4,200**
	1/12/2018	**2,700**	**4,830**
	4/6/2018	**2,530**	**1,430**
	7/3/2018	**2,560**	**4,580**
	10/4/2018	**2,710**	**4,020**
	1/8/2019	**2,530**	**4,330**
	4/10/2019	**2,660**	**4,670**
	7/16/2019	**1,340**	**4,720**
	10/17/2019	**2,490**	**4,160**
	1/22/2020	**2,700**	**4,560**
	4/13/2020	**1,880**	**4,300**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Pure Water Tower			
	01/06	**6,976**	**12,456**
	03/06	NS	NS
	6/14/2006	**7,890**	**16,200**
	9/12/2006	**8,200**	**13,100**
	12/6/2006	**8,070**	**14,600**
	2/27/2007	**6,400**	**12,800**
	7/30/2007	**7,450**	**15,400**
	1/21/2008	**11,800**	**20,100**
	1/26/2009	**5,010**	**12,100**
	8/21/2009	**6,920**	**12,900**
	2/17/2010	NA	**19,800**
	2/18/2010	**9,880**	NA
	8/16/2010	**11,800**	**23,000**
	6/28/2011	**9,260**	**20,500**
	8/5/2011	**6,470**	**12,900**
	1/31/2012	**5,380**	**11,500**
Pure Water Well			
	01/06	NS	NS
	03/06	NS	NS
	6/14/2006	**5,820**	**11,200**
	9/12/2006	**6,260**	**13,900**
	12/6/2006	**2,790**	**5,680**
	7/23/2007	**4,060**	**9,500**
	1/21/2008	**2,560**	**4,590**
	7/7/2008	**1,030**	**2,320**
	1/26/2009	**4,390**	**10,400**
	8/21/2009	**5,240**	**9,840**
	2/17/2010	NA	**9,160**
	2/18/2010	**1,810**	NA
	2/10/2011	**5,070**	**12,900**
	8/5/2011	**5,430**	**12,900**
	8/21/2012	**4,650**	**10,200**
	1/30/2013	**4,880**	**8,800**
	10/25/2013	**5,340**	**11,100**
	1/13/2014	**4,830**	**10,700**
	7/17/2015	**754**	**1,890**
RRR Ranch Windmill			
	01/06	NS	NS
	03/06	**1,693**	**3,527**
	6/14/2006	**1,760**	**3,640**
	1/28/2016	**1,430**	**2,760**
	7/22/2016	**1,460**	**3,940**
	1/12/2017	**1,760**	**3,030**
	4/10/2017	NS	NS
	7/17/2017	**1,570**	**3,300**
	10/9/2017	**2,620**	**3,870**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,620**	**3,110**
	7/6/2018	**1,670**	**3,030**
	10/3/2018	**1,660**	**3,000**
	1/7/2019	**1,290**	**2,950**
	4/4/2019	47.4	**3,110**
	7/11/2019	**1,800**	**3,560**
	10/15/2019	**1,800**	**3,500**
	1/23/2020	**1,850**	**3,520**
	4/9/2020	**1,860**	**3,460**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		300	1,000
TRAC-4			
	01/06	**432**	**1,237**
	03/06	**581**	**3,181**
	6/14/2006	**402**	**1,270**
	9/11/2006	**428**	**1,310**
	12/7/2006	**456**	**1,300**
	2/27/2007	**435**	**1,240**
	7/30/2007	**493**	**1,320**
	1/21/2008	**421**	**1,220**
	7/7/2008	**461**	**1,290**
	1/26/2009	**546**	**1,320**
	8/21/2009	**471**	**1,330**
	2/17/2010	NA	**1,320**
	2/18/2010	**469**	NA
	2/15/2011	**549**	**1,340**
	8/4/2011	**455**	**1,250**
	1/31/2012	**445**	**1,150**
	8/2/2012	**433**	NA
	7/31/2013	**427**	**1,170**
	7/18/2014	**470**	**1,480**
	7/17/2015	**425**	**1,210**
	1/28/2016	**400**	**1,280**
	7/19/2016	NS	NS
	1/11/2017	**377**	**1,160**
	4/10/2017	NS	NS
	7/19/2017	**350**	**1,100**
	10/9/2017	**348**	**1,110**
	1/12/2018	**335**	**1,120**
	4/6/2018	**401**	**1,040**
	7/3/2018	**343**	**1,040**
	10/4/2018	**347**	**1,070**
	1/7/2019	**315**	**1,080**
	4/9/2019	**350**	**1,070**
	7/16/2019	**333**	**1,110**
	10/17/2019	**323**	**1,070**
	1/22/2020	NS	NS
	4/10/2020	NS	NS
TRAC-8			
	01/06	**2,090**	**3,786**
	03/06	**2,090**	**3,801**
	6/14/2006	**1,740**	**3,830**
	9/11/2006	**1,990**	**4,630**
	12/6/2006	**2,130**	**4,600**
	2/27/2007	**2,220**	**4,630**
	7/30/2007	**2,220**	**5,110**
	1/21/2008	**2,100**	**3,580**
	7/7/2008	**2,010**	**4,170**
	1/26/2009	**2,250**	**4,280**
	8/21/2009	**2,260**	**4,140**
	3/8/2010	**2,240**	**4,430**
	8/16/2010	**2,360**	**4,350**
	2/10/2011	**2,880**	**4,750**
	8/4/2011	**2,450**	**5,170**
	1/31/2012	**2,120**	**4,600**
	8/2/2012	**1,600**	NA
	1/30/2013	**1,920**	**3,420**
	7/31/2013	**1,760**	**4,060**
	1/13/2014	**1,650**	**3,270**
	7/17/2014	**1,770**	**4,670**
	1/13/2015	**1,810**	**4,300**
	1/28/2016	NS	NS
	7/19/2016	**2,000**	**4,380**

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Appendix F

Historical Groundwater Analytical Results Summary
Chevron Dollarhide Unit
Dollarhide, Texas

Sample Location	Sample Date	Chloride (mg/L)	Total Dissolved Solids (mg/L)
TCEQ Secondary Drinking Water Standards (mg/L)		**300**	**1,000**
Wilson Ranch			
	01/06	**2,243**	**3,578**
	03/06	NS	NS
	6/14/2006	**2,410**	**4,980**
	9/12/2006	**2,510**	**4,450**
	12/7/2006	**2,350**	**4,750**
	2/27/2007	**2,110**	**4,020**
	7/30/2007	**2,440**	**5,240**
	1/21/2008	**2,690**	**3,880**
	7/7/2008	**2,030**	**3,810**
	8/25/2009	**2,320**	**5,350**
	2/12/2016	**888**	**2,230**
	7/19/2016	**1,500**	**3,250**
	1/10/2017	**1,300**	**3,130**
	4/10/2017	NS	NS
	7/16/2017	**1,140**	**2,380**
	10/9/2017	**1,200**	**2,800**
	1/12/2018	**673**	**1,600**
	4/6/2018	**1,360**	**2,950**
	7/6/2018	**1,330**	**2,190**
	10/3/2018	**1,380**	**2,680**
	1/7/2019	**1,070**	**2,420**
	4/4/2019	**1,480**	**2,440**
	7/12/2019	**1,300**	**2,530**
	10/15/2019	**928**	**1,880**
	1/22/2020	**1,330**	**2,790**
	4/10/2020	**1,260**	**2,530**
Smith Residential Well			
	1/13/2017	**1,600**	**2,580**
	4/10/2017	NS	NS
	7/17/2017	**1,050**	**2,230**
	10/9/2017	**1,260**	**2,660**
	1/12/2018	**650**	**1,500**
	4/5/2018	**1,280**	**2,670**
	7/6/2018	**1,340**	**2,140**
	10/3/2018	**1,310**	**2,260**
	1/7/2019	**1,020**	**2,230**
	4/5/2019	**1,510**	**2,490**
	7/12/2019	**1,300**	**2,660**
	10/15/2019	**1,180**	**2,140**
	1/22/2020	**1,360**	**2,550**
	4/10/2020	**1,310**	**2,600**

Notes:
1. Constituent concentrations are reported in milligrams per liter (mg/L).
2. Bold font and shading indicates that a detected result exceeded the TCEQ Secondary Drinking Water Standard.

NS = Not Sampled
NA = Not Applicable

Released to Imaging: 11/21/2023 10:32:34 AM

Appendix G
Data Validation Reports

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

April 16, 2020

To:	Nick Casten, Liz Whiddon	Ref. No.:	055270
From:	Chris G. Knight/eew/29-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas January-February 2020**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during January-February 2020. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control sample/laboratory control duplicate samples (LCS/LCSD), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA National Functional Guidelines for Superfund Organic Methods Data Review", EPA-540-R-2016-002, September 2016.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation with the following exception:

i) One method blank yielded a low level detection for chloride. All associated sample results were significantly greater than the method blank detection and were not affected. No further action was required.

4. Laboratory Control Sample Analyses

LCS/LCSD are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained chloride. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed for chloride analyses as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the following exception:

i) One MS/MSD was reported low recoveries for chloride analysis due to possible matrix interference and was not assessed. No further action was required.

The laboratory also performed additional MS/MSD analyses on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for total dissovled solids (TDS). The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory also performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted two equipment blank samples and three field duplicate sample sets.

Equipment Blank Sample Analysis

To assess field decontamination procedures and cleanliness of sample containers, two equipment blank samples were submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest with the following exceptions:

ii) NM-MW-14-WR-201802 and NM-MW-21-WR-201802 both yielded low level detections for chloride. All associated sample results were significantly greater than the equipment blank detections and were not affected. No further actions were required.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-13-W-202001	NM-MW-13	Water	01/20/2020	12:50	X	X	DUP
NM-MW-13-WD-202001	NM-MW-13	Water	01/20/2020	12:50	X	X	Field duplicate of NM-MW
NM-MW-11-W-202001	NM-MW-11	Water	01/20/2020	13:15	X	X	
NM-MW-10-W-202001	NM-MW-10	Water	01/20/2020	13:30	X	X	
NM-MW-5-W-202001	NM-MW-5	Water	01/20/2020	13:45	X	X	
NM-MW-6-W-202001	NM-MW-6	Water	01/20/2020	13:50	X	X	
NM-MW-1-W-202001	NM-MW-1	Water	01/20/2020	14:00	X	X	
NM-MW-2-W-202001	NM-MW-2	Water	01/20/2020	14:15	X	X	
NM-MW-3-W-202001	NM-MW-3	Water	01/20/2020	14:20	X	X	MS/MSD
NM-MW-4-W-202001	NM-MW-4	Water	01/20/2020	14:30	X	X	MS/MSD
NM-MW-8-W-202001	NM-MW-8	Water	01/20/2020	14:45	X	X	
NM-MW-7-W-202001	NM-MW-7	Water	01/20/2020	15:10	X	X	DUP
44-J-3-MW-W-202101	44-J-3	Water	01/21/2020	10:00	X	X	
44-J-4-MW-W-202101	44-J-4	Water	01/21/2020	10:10	X	X	
44-J-5-MW-W-202101	44-J-5	Water	01/21/2020	10:20	X	X	
44-J-1-MW-W-202101	44-J-1	Water	01/21/2020	10:30	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
44-J-2-MW-W-202101	44-J-2	Water	01/21/2020	10:40	X	X	
44-I-1-MW-W-202101	44-I-1	Water	01/21/2020	10:45	X	X	
45-FF-MW-W-202101	45-FF	Water	01/21/2020	10:55	X	X	MS/MSD
45-E-2-MW-W-202101	45-E-2	Water	01/21/2020	11:05	X	X	
45-E-1-MW-W-202101	45-E-1	Water	01/21/2020	11:20	X	X	DUP
45-F-1-MW-W-202101	45-F-1	Water	01/21/2020	11:30	X	X	
MW-20-W-202101	MW-20	Water	01/21/2020	11:50	X	X	
MW-27-W-202101	MW-27	Water	01/21/2020	12:00	X	X	
MW-8-W-202101	MW-8	Water	01/21/2020	12:10	X	X	
MW-9-W-202101	MW-9	Water	01/21/2020	12:20	X	X	
58-B-2-MW-W-202101	58-B-2	Water	01/21/2020	12:30	X	X	
58-B-1-MW-W-202101	58-B-1	Water	01/21/2020	12:45	X	X	
Wilson Ranch-W-202201	WILSON RANCH WW	Water	01/22/2020	10:25	X	X	
NM-MW-9-W-202201	NM-MW-9	Water	01/22/2020	10:45	X	X	
Smith Residence-W-202201	SMITH RESIDENCE	Water	01/22/2020	11:00	X	X	
MW-3-W-202201	MW-3	Water	01/22/2020	12:00	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-4-W-202201	MW-4	Water	01/22/2020	12:15	X	X	MS/MSD
MW-13-W-202201	MW-13	Water	01/22/2020	12:30	X	X	
MW-14-W-202201	MW-14	Water	01/22/2020	12:40	X	X	
MW-15-W-202201	MW-15	Water	01/22/2020	12:50	X	X	DUP
MW-16-W-202201	MW-16	Water	01/22/2020	13:00	X	X	
MW-21-W-202201	MW-21	Water	01/22/2020	13:10	X	X	
MW-17-W-202201	MW-17	Water	01/22/2020	13:20	X	X	
MW-17-WD-202201	MW-17	Water	01/22/2020	13:20	X	X	Field duplicate of MW-17
MW-23-W-202201	MW-23	Water	01/22/2020	13:40	X	X	
MW-22-W-202201	MW-22	Water	01/22/2020	13:45	X	X	
MW-30-W-202201	MW-30	Water	01/22/2020	14:00	X	X	
Livermore-WW-202201	Livermore	Water	01/22/2020	14:15	X	X	
MW-5-W-202201	MW-5	Water	01/22/2020	14:25	X	X	
RRR Ranch Windmill-W-202301	Ranch Windmill	Water	01/23/2020	10:00	X	X	
43-K-1-MW-W-202301	43-K-1	Water	01/23/2020	10:20	X	X	
45-E-3-MW-W-202301	45-E-3	Water	01/23/2020	10:30	X	X	DUP

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
58-B-3-MW-W-202301	58-B-3	Water	01/23/2020	10:35	X	X	
MW-34-W-202301	MW-34	Water	01/23/2020	10:50	X	X	
MW-33-W-202301	MW-33	Water	01/23/2020	11:05	X	X	
MW-33-WD-202301	MW-33	Water	01/23/2020	11:05	X	X	Field duplicate of MW-33; DUP
MW-32-W-202301	MW-32	Water	01/23/2020	11:20	X	X	
MW-29-W-202301	MW-29	Water	01/23/2020	12:00	X	X	MS/MSD
MW-28-W-202301	MW-28	Water	01/23/2020	12:15	X	X	
MW-19-W-202301	MW-19	Water	01/23/2020	12:45	X	X	
MW-18-W-202301	MW-18	Water	01/23/2020	12:55	X	X	
MW-24-W-202301	MW-24	Water	01/23/2020	13:05	X	X	
MW-26-W-202301	MW-26	Water	01/23/2020	13:15	X	X	
MW-10-W-202301	MW-10	Water	01/23/2020	13:20	X	X	
MW-11-W-202301	MW-11	Water	01/23/2020	13:30	X	X	
MW-6-W-202301	MW-6	Water	01/23/2020	13:35	X	X	MS/MSD; DUP
MW-31-W-202301	MW-31	Water	01/23/2020	13:45	X	X	
MW-12-W-202301	MW-12	Water	01/23/2020	14:00	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-25-W-202301	MW-25	Water	01/23/2020	14:05	X	X	
NM-MW-14-W-201802	NM-MW-14	Water	02/18/2020	10:50	X	X	
NM-MW-14-WR-201802	-	Water	02/18/2020	10:55	X	X	Equipment Blank
NM-MW-15-W-201802	NM-MW-15	Water	02/18/2020	11:15	X	X	DUP
NM-MW-17-W-201802	NM-MW-17	Water	02/18/2020	11:40	X	X	
NM-MW-20-W-201802	NM-MW-20	Water	02/18/2020	12:10	X	X	
NM-MW-21-W-201802	NM-MW-21	Water	02/18/2020	12:35	X	X	
NM-MW-21-WR-201802	-	Water	02/18/2020	12:40	X	X	Equipment Blank

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		**43-K-1**	**44-I-1**	**44-J-1**	**44-J-2**	**44-J-3**	**44-J-4**
Sample Name:		**43-K-1-MW-W-202301**	**44-I-1-MW-W-202101**	**44-J-1-MW-W-202101**	**44-J-2-MW-W-202101**	**44-J-3-MW-W-202101**	**44-J-4-MW-W-202101**
Sample Date:		**01/23/2020**	**01/21/2020**	**01/21/2020**	**01/21/2020**	**01/21/2020**	**01/21/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	6570	3540	5020	3830	4720	6120
TDS	mg/L	11300	6040	8150	6420	7720	10500

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		44-J-5	45-E-1	45-E-2	45-E-3	45-F-1	45-FF
Sample Name:		**44-J-5-MW-W-202101**	**45-E-1-MW-W-202101**	**45-E-2-MW-W-202101**	**45-E-3-MW-W-202301**	**45-F-1-MW-W-202101**	**45-FF-MW-W-202101**
Sample Date:		**01/21/2020**	**01/21/2020**	**01/21/2020**	**01/23/2020**	**01/21/2020**	**01/21/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	4210	1050	1660	4260	712	4320
TDS	mg/L	6780	1970	3060	6880	1270	7510

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		58-B-1	58-B-2	58-B-3	Livermore	MW-5	MW-6
Sample Name:		**58-B-1-MW-W-202101**	**58-B-2-MW-W-202101**	**58-B-3-MW-W-202301**	**Livermore-WW-202201**	**MW-5-W-202201**	**MW-6-W-202301**
Sample Date:		**01/21/2020**	**01/21/2020**	**01/23/2020**	**01/22/2020**	**01/22/2020**	**01/23/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	6590	3770	1570	2700	262	488
TDS	mg/L	10200	6280	2710	4560	964	1550

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-8	MW-9	MW-10	MW-11	MW-12	MW-17
Sample Name:		MW-8-W-202101	MW-9-W-202101	MW-10-W-202301	MW-11-W-202301	MW-12-W-202301	MW-17-W-202201
Sample Date:		01/21/2020	01/21/2020	01/23/2020	01/23/2020	01/23/2020	01/22/2020
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	967	2740	5230	7760	12700	9410
TDS	mg/L	2540	4010	8580	12300	20600	15100

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-17	MW-18	MW-19	MW-20	MW-22	MW-23
Sample Name:		MW-17-WD-202201	MW-18-W-202301	MW-19-W-202301	MW-20-W-202101	MW-22-W-202201	MW-23-W-202201
Sample Date:		01/22/2020	01/23/2020	01/23/2020	01/21/2020	01/22/2020	01/22/2020
		Duplicate					
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	8560	21400	7540	1330	11700	7140
TDS	mg/L	13600	34800	13200	2440	16800	10400

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-24	MW-25	MW-26	MW-27	MW-28	MW-29
Sample Name:		MW-24-W-202301	MW-25-W-202301	MW-26-W-202301	MW-27-W-202101	MW-28-W-202301	MW-29-W-202301
Sample Date:		01/23/2020	01/23/2020	01/23/2020	01/21/2020	01/23/2020	01/23/2020
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	4470	25200	1460	2420	2450	535
TDS	mg/L	8980	36400	3220	4230	4100	1250

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-30	MW-31	MW-32	MW-33	MW-33	MW-34
Sample Name:		MW-30-W-202201	MW-31-W-202301	MW-32-W-202301	MW-33-W-202301	MW-33-WD-202301	MW-34-W-202301
Sample Date:		01/22/2020	01/23/2020	01/23/2020	01/23/2020	01/23/2020	01/23/2020
						Duplicate	
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	2520	11700	327	185	168	73.3
TDS	mg/L	4290	17100	1080	1010	1020	606

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-3	MW-4	MW-13	MW-14	MW-15	MW-16
Sample Name:		MW-3-W-202201	MW-4-W-202201	MW-13-W-202201	MW-14-W-202201	MW-15-W-202201	MW-16-W-202201
Sample Date:		01/22/2020	01/22/2020	01/22/2020	01/22/2020	01/22/2020	01/22/2020
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	696	375	1810	1880	1290	525
TDS	mg/L	2390	578	5110	3290	2180	1270

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		MW-21	NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5
Sample Name:		**MW-21-W-202201**	**NM-MW-1-W-202001**	**NM-MW-2-W-202001**	**NM-MW-3-W-202001**	**NM-MW-4-W-202001**	**NM-MW-5-W-202001**
Sample Date:		**01/22/2020**	**01/20/2020**	**01/20/2020**	**01/20/2020**	**01/20/2020**	**01/20/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	6900	286	643	241	44.1	152
TDS	mg/L	10300	1390	1240	649	388	1240

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		**NM-MW-6**	**NM-MW-7**	**NM-MW-8**	**NM-MW-9**	**NM-MW-10**	**NM-MW-11**
Sample Name:		**NM-MW-6-W-202001**	**NM-MW-7-W-202001**	**NM-MW-8-W-202001**	**NM-MW-9-W-202201**	**NM-MW-10-W-202001**	**NM-MW-11-W-202001**
Sample Date:		**01/20/2020**	**01/20/2020**	**01/20/2020**	**01/22/2020**	**01/20/2020**	**01/20/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	145	2450	6220	555	357	161
TDS	mg/L	750	4410	10400	1090	1620	1870

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		NM-MW-13	NM-MW-13	NM-MW-14	NM-MW-15	NM-MW-17	NM-MW-20
Sample Name:		**NM-MW-13-W-202001**	**NM-MW-13-WD-202001**	**NM-MW-14-W-201802**	**NM-MW-15-W-201802**	**NM-MW-17-W-201802**	**NM-MW-20-W-201802**
Sample Date:		**01/20/2020**	**01/20/2020**	**02/18/2020**	**02/18/2020**	**02/18/2020**	**02/18/2020**
			Duplicate				
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	203	205	24.4	55.9	160	21.8
TDS	mg/L	1060	1060	457	499	989	372

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Location ID:		**NM-MW-21**	**Ranch Windmill**	**SMITH RESIDENCE**	**WILSON RANCH WW**
Sample Name:		**NM-MW-21-W-201802**	**RRR Ranch Windmill-W-202301**	**Smith Residence-W-202201**	**Wilson Ranch-W-202201**
Sample Date:		**02/18/2020**	**01/23/2020**	**01/22/2020**	**01/22/2020**
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	31.5	1850	1360	1330
TDS	mg/L	533	3520	2550	2790

Notes:

TDS - Total Dissolved Solids

Received by OCD: 3/23/2023 11:36:17 AM

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
January-February 2020

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM

Memorandum

May 5, 2020
Revised June 29, 2020

To:	Nick Casten, Liz Whiddon	Ref. No.:	055270
From:	Chris G. Knight/eew/30-NF	Tel:	512-506-8803
Subject:	**Analytical Results and Reduced Validation Groundwater Monitoring Well Sampling Chevron Environmental Management Company (CEMC) - Dollarhide Andrews County, Texas April 2020**		

1. Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the Chevron Environmental Management Company (CEMC) – Dollarhide site during April 2020. Samples were submitted to Xenco Laboratories, located in Midland, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, duplicate data, recovery data from laboratory control sample/laboratory control duplicate samples (LCS/LCSD), matrix spikes/matrix spike duplicates (MS/MSD), laboratory duplicates, and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA National Functional Guidelines for Superfund Organic Methods Data Review", EPA-540-R-2016-002, September 2016.

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and the analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were delivered on ice and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Laboratory Control Sample Analyses

LCS/LCSD are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of one per twenty investigative samples and/or one per analytical batch.

The LCS/LCSD contained chloride. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5. Matrix Spike Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed for chloride analyses as specified in Table 1. The MS/MSD samples were spiked with chloride and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

The laboratory also performed additional MS/MSD analyses on non-site samples. These cannot be used to assess accuracy and precision for the site samples.

6. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory as specified in Table 1 for total dissovled solids (TDS). The duplicate results were evaluated per the "Guidelines".

All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.

The laboratory also performed additional duplicate analyses on non-site samples. These cannot be used to assess precision for the site samples.

7. Field QA/QC Samples

The field QA/QC consisted three field duplicate sample sets.

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than fifty percent for water. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's RL for each analyte.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-7-W-200904	NM-MW-7	Water	04/09/2020	10:20	X	X	DUP
RRR Ranch Windmill-W-200904	Ranch Windmill	Water	04/09/2020	10:45	X	X	
NM-MW-4-W-200904	NM-MW-4	Water	04/09/2020	11:00	X	X	MS/MSD
NM-MW-8-W-200904	NM-MW-8	Water	04/09/2020	11:20	X	X	
NM-MW-3-W-200904	NM-MW-3	Water	04/09/2020	11:40	X	X	MS/MSD
NM-MW-2-W-200904	NM-MW-2	Water	04/09/2020	12:00	X	X	
NM-MW-1-W-200904	NM-MW-1	Water	04/09/2020	12:35	X	X	
NM-MW-1-WD-200904	NM-MW-1	Water	04/09/2020	12:35	X	X	Field duplicate of NM-MW-1
NM-MW-5-W-200904	NM-MW-5	Water	04/09/2020	12:45	X	X	
NM-MW-6-W-200904	NM-MW-6	Water	04/09/2020	13:00	X	X	
NM-MW-13-W-200904	NM-MW-13	Water	04/09/2020	13:30	X	X	
NM-MW-11-W-200904	NM-MW-11	Water	04/09/2020	14:00	X	X	
NM-MW-15-W-200904	NM-MW-15	Water	04/09/2020	14:10	X	X	
NM-MW-17-W-200904	NM-MW-17	Water	04/09/2020	14:35	X	X	DUP
NM-MW-20-W-200904	NM-MW-20	Water	04/09/2020	15:00	X	X	MS/MSD
NM-MW-21-W-200904	NM-MW-21	Water	04/09/2020	15:10	X	X	
NM-MW-14-W-201004	NM-MW-14	Water	04/10/2020	10:15	X	X	DUP
NM-MW-9-W-201004	NM-MW-9	Water	04/10/2020	10:30	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
NM-MW-10-W-201004	NM-MW-10	Water	04/10/2020	10:40	X	X	
NM-MW-12-W-201004	NM-MW-12	Water	04/10/2020	11:05	X	X	
Wilson Ranch-W-201004	WILSON RANCH WW	Water	04/10/2020	11:15	X	X	
Smith Residence-W-201004	SMITH RESIDENCE	Water	04/10/2020	11:40	X	X	
MW-34-W-201004	MW-34	Water	04/10/2020	11:55	X	X	MS/MSD
MW-33-W-201004	MW-33	Water	04/10/2020	12:05	X	X	
MW-32-W-201004	MW-32	Water	04/10/2020	12:15	X	X	
MW-32-WD-201004	MW-32	Water	04/10/2020	12:15	X	X	Field duplicate of MW-32
MW-29-W-201004	MW-29	Water	04/10/2020	12:55	X	X	
MW-28-W-201004	MW-28	Water	04/10/2020	13:00	X	X	
MW-3-W-201304	MW-3	Water	04/13/2020	11:15	X	X	DUP
MW-5-W-201304	MW-5	Water	04/13/2020	11:30	X	X	
MW-4-W-201304	MW-4	Water	04/13/2020	11:40	X	X	
MW-14-W-201304	MW-14	Water	04/13/2020	11:45	X	X	
MW-15-W-201304	MW-15	Water	04/13/2020	12:00	X	X	
MW-16-W-201304	MW-16	Water	04/13/2020	12:10	X	X	
MW-21-W-201304	MW-21	Water	04/13/2020	12:20	X	X	
MW-13-W-201304	MW-13	Water	04/13/2020	12:30	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-22-W-201304	MW-22	Water	04/13/2020	12:35	X	X	
MW-23-W-201304	MW-23	Water	04/13/2020	12:45	X	X	DUP
MW-17-W-201304	MW-17	Water	04/13/2020	13:00	X	X	
MW-17-WD-201304	MW-17	Water	04/13/2020	13:00	X	X	Field duplicate of MW-17
Livermore-W-201304	Livermore	Water	04/13/2020	13:30	X	X	
DHU-FWS-W-201304	DHU-FWS	Water	04/13/2020	13:50	X	X	
MW-18-W-201404	MW-18	Water	04/14/2020	10:30	X	X	
MW-19-W-201404	MW-19	Water	04/14/2020	10:45	X	X	
MW-24-W-201404	MW-24	Water	04/14/2020	11:00	X	X	
MW-26-W-201404	MW-26	Water	04/14/2020	11:15	X	X	
MW-20-W-201404	MW-20	Water	04/14/2020	11:30	X	X	
MW-27-W-201404	MW-27	Water	04/14/2020	11:45	X	X	
MW-10-W-201404	MW-10	Water	04/14/2020	12:15	X	X	
MW-11-W-201404	MW-11	Water	04/14/2020	12:30	X	X	
MW-6-W-201404	MW-6	Water	04/14/2020	12:45	X	X	MS/MSD; DUP
MW-12-W-201404	MW-12	Water	04/14/2020	13:00	X	X	
MW-25-W-201404	MW-25	Water	04/14/2020	13:30	X	X	DUP
MW-30-W-201404	MW-30	Water	04/14/2020	13:45	X	X	

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 1

Sample Collection and Analysis Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

					Analysis/Parameters		
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**Chloride**	**TDS**	**Comments**
MW-31-W-201404	MW-31	Water	04/14/2020	14:15	X	X	
MW-8-W-201404	MW-8	Water	04/14/2020	14:30	X	X	
MW-9-W-201404	MW-9	Water	04/14/2020	14:45	X	X	

Notes:

TDS - Total Dissolved Solids
MS/MSD - Matrix Spike/Matrix Spike Duplicate
DUP - Laboratory Duplicate

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		DHU-FWS	Livermore	MW-3	MW-4	MW-5	MW-6	MW-8
Sample Name:		**DHU-FWS-W-201304**	**Livermore-W-201304**	**MW-3-W-201304**	**MW-4-W-201304**	**MW-5-W-201304**	**MW-6-W-201404**	**MW-8-W-201404**
Sample Date:		**04/13/2020**	**04/13/2020**	**04/13/2020**	**04/13/2020**	**04/13/2020**	**04/14/2020**	**04/14/2020**
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	570	1880	603	323	265	387	750
TDS	mg/L	2940	4300	1400	939	986	1530	2370

Released to Imaging: 11/21/2023 10:32:34 AM

Received by OCD: 3/23/2023 11:36:17 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		MW-9	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
Sample Name:		MW-9-W-201404	MW-10-W-201404	MW-11-W-201404	MW-12-W-201404	MW-13-W-201304	MW-14-W-201304	MW-15-W-201304
Sample Date:		04/14/2020	04/14/2020	04/14/2020	04/14/2020	04/13/2020	04/13/2020	04/13/2020
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	1800	3260	7620	13600	1580	1130	1010
TDS	mg/L	4100	8730	13400	23400	4420	3130	1960

Released to Imaging: 11/21/2023 10:32:34 AM

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		MW-16	MW-17	MW-17	MW-18	MW-19	MW-20	MW-21
Sample Name:		MW-16-W-201304	MW-17-W-201304	MW-17-WD-201304	MW-18-W-201404	MW-19-W-201404	MW-20-W-201404	MW-21-W-201304
Sample Date:		04/13/2020	04/13/2020	04/13/2020	04/14/2020	04/14/2020	04/14/2020	04/13/2020
				Duplicate				
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	310	7870	8210	18500	7170	1140	6610
TDS	mg/L	1030	13800	14400	34000	13300	2970	10200

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		MW-22	MW-23	MW-24	MW-25	MW-26	MW-27	MW-28
Sample Name:		**MW-22-W-201304**	**MW-23-W-201304**	**MW-24-W-201404**	**MW-25-W-201404**	**MW-26-W-201404**	**MW-27-W-201404**	**MW-28-W-201004**
Sample Date:		**04/13/2020**	**04/13/2020**	**04/14/2020**	**04/14/2020**	**04/14/2020**	**04/14/2020**	**04/10/2020**
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	11700	3540	2770	24200	1230	1770	2400
TDS	mg/L	19800	7780	9190	38500	3260	4170	4080

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		MW-29	MW-30	MW-31	MW-32	MW-32	MW-33	MW-34
Sample Name:		MW-29-W-201004	MW-30-W-201404	MW-31-W-201404	MW-32-W-201004	MW-32-WD-201004	MW-33-W-201004	MW-34-W-201004
Sample Date:		04/10/2020	04/14/2020	04/14/2020	04/10/2020	04/10/2020	04/10/2020	04/10/2020
						Duplicate		
Parameters	**Unit**							
General Chemistry								
Chloride	mg/L	552	1300	9960	342	339	190	69.6
TDS	mg/L	1270	3960	17900	1130	1140	1100	618

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		NM-MW-1	NM-MW-1	NM-MW-2	NM-MW-3	NM-MW-4	NM-MW-5
Sample Name:		NM-MW-1-W-200904	NM-MW-1-WD-200904	NM-MW-2-W-200904	NM-MW-3-W-200904	NM-MW-4-W-200904	NM-MW-5-W-200904
Sample Date:		04/09/2020	04/09/2020	04/09/2020	04/09/2020	04/09/2020	04/09/2020
			Duplicate				
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	277	291	734	255	45.8	158
TDS	mg/L	1440	1440	1270	721	513	1310

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		NM-MW-6	NM-MW-7	NM-MW-8	NM-MW-9	NM-MW-10	NM-MW-11
Sample Name:		**NM-MW-6-W-200904**	**NM-MW-7-W-200904**	**NM-MW-8-W-200904**	**NM-MW-9-W-201004**	**NM-MW-10-W-201004**	**NM-MW-11-W-200904**
Sample Date:		**04/09/2020**	**04/09/2020**	**04/09/2020**	**04/10/2020**	**04/10/2020**	**04/09/2020**
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	145	2460	6680	263	367	160
TDS	mg/L	834	4620	11700	833	1720	1990

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		NM-MW-12	NM-MW-13	NM-MW-14	NM-MW-15	NM-MW-17	NM-MW-20
Sample Name:		NM-MW-12-W-201004	NM-MW-13-W-200904	NM-MW-14-W-201004	NM-MW-15-W-200904	NM-MW-17-W-200904	NM-MW-20-W-200904
Sample Date:		04/10/2020	04/09/2020	04/10/2020	04/09/2020	04/09/2020	04/09/2020
Parameters	**Unit**						
General Chemistry							
Chloride	mg/L	591	201	25.7	55.6	198	21.0
TDS	mg/L	1290	1090	482	530	1070	408

Table 2

Analytical Results Summary
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Location ID:		NM-MW-21	Ranch Windmill	SMITH RESIDENCE	WILSON RANCH WW
Sample Name:		NM-MW-21-W-200904	RRR Ranch Windmill-W-200904	Smith Residence-W-201004	Wilson Ranch-W-201004
Sample Date:		04/09/2020	04/09/2020	04/10/2020	04/10/2020
Parameters	**Unit**				
General Chemistry					
Chloride	mg/L	28.3	1860	1310	1260
TDS	mg/L	560	3460	2600	2530

Notes:

TDS - Total Dissolved Solids

Table 3

Analytical Methods
Groundwater Monitoring Well Sampling
Chevron Environmental Management Company (CEMC) - Dollarhide
Andrews County, Texas
April 2020

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Chloride	EPA 300/300.1	Water	28
TDS	SM 2540C	Water	7

Notes:

TDS - Total Dissolved Solids

Method References:

EPA - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

Released to Imaging: 11/21/2023 10:32:34 AM



about GHD

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

Nicholas G. Casten
Nick.Casten@GHD.com
225.292.9007

Elizabeth Whiddon
Elizabeth.Whiddon@GHD.com
225.292.9007

www.ghd.com

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 200173

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 200173
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	2018 annual report, 2019 1st & 2nd half semi-annual reports, & 2020 1st half semi-annual report accepted for the record. Please see App ID 200734 for most updated status.	5/18/2023