

# Transmittal Letter



**TO**  
Mike Bratcher  
EMNRD – Oil Conservation Division  
506 W. Texas Ave.  
Artesia, NM 88210

**FROM**  
Hugh Robotham  
432-217-2117

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**COPIES TO**  
Brian Noonan – OXY Glenn Springs Holdings, Inc.

**DATE**  
04/17/2024

**PROJECT NUMBER**  
30181005

**SUBJECT**  
Annual GWM Report for 2023 Submittal

### We are sending you:

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1	04/17/2024			2023 Annual Groundwater Monitoring Report Indian Basin Gas Plant, Eddy County, New Mexico	F

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### Comments:

**Please let me know if you have any questions or concerns.**

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GLENN SPRINGS HOLDINGS, INC.  
1201 Lake Robbins Drive, Room 16034, The Woodlands, Texas  
77380

**Mike Bratcher**

Incident Supervisor Environmental Bureau  
EMNRD – Oil Conservation Division  
506 W. Texas Avenue  
Artesia, NM 88210

04.15.2024

**Re: Submittal of 2023 Annual Groundwater Monitoring Report  
Indian Basin Gas Plant AP-107  
Eddy County, New Mexico**

Dear Mr. Bratcher,

Glenn Springs Holdings, Inc. (a subsidiary of Occidental Petroleum Corporation) is submitting the attached Annual Groundwater Monitoring Report for the Indian Basin Gas Plant (AP-107) located in Eddy County, New Mexico. The New Mexico Oil Conservation District requires groundwater monitoring of 15 wells at the site and submittal of an annual report documenting the groundwater monitoring activities.

Thank you, and please do not hesitate to contact me at (832) 636-3651 or via email at [Brian\\_Noonan@oxy.com](mailto:Brian_Noonan@oxy.com) if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "B J Noonan", followed by a long horizontal flourish.

**Brian J. Noonan**

DIRECTOR OF OPERATIONS  
GLENN SPRINGS HOLDINGS, INC.

✉ [Brian\\_Noonan@oxy.com](mailto:Brian_Noonan@oxy.com)

☎ 832.636.3651



OXY **GLENN SPRINGS HOLDINGS, INC.**

# 2023 ANNUAL GROUNDWATER MONITORING REPORT

Indian Basin Gas Plant  
Eddy County, New Mexico

April 2024

2023 Annual Groundwater Monitoring Report

**2023 ANNUAL  
GROUNDWATER  
MONITORING REPORT**

Indian Basin Gas Plant  
Eddy County, New Mexico



Hugh B. Robotham, P. E., P.G.

Project Manager / Principal Hydrologist

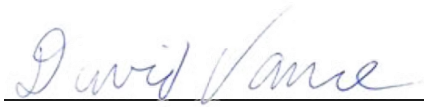
Prepared for:

Brian Noonan

Director of Operations

**OXY GLENN SPRINGS HOLDINGS, INC.**

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Date:

April 17, 2024

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2023 Annual Groundwater Monitoring Report

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## 2023 Annual Groundwater Monitoring Report

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2023 Annual Groundwater Monitoring Report

## ACRONYMS AND ABBREVIATIONS

BTEX	Benzene, Toluene, Ethylbenzene, Xylene
IBGP	Indian Basin Gas Plant
IBRP	Indian Basin Remediation Project
NMOCD	New Mexico Oil Conservation Division
OXY	OXY USA WTP Limited Partnership
Site	Indian Basin Gas Plant
TDS	Total Dissolved Solids

## 2023 Annual Groundwater Monitoring Report

## EXECUTIVE SUMMARY

This report documents the results for the June 2023 annual groundwater monitoring event and the November 2023 semi-annual gauging event and provides historical groundwater monitoring documentation. The 2023 annual groundwater monitoring event was conducted on June 21 and 22, 2023 and included the gauging of depth to groundwater and non-aqueous phase liquid thickness in 15 monitoring wells (seven in the Shallow Zone and eight in the Lower Queen) and sampling of monitoring wells for BTEX, TDS and chloride. On November 16, 2023, semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness of 15 monitoring wells (seven in the Shallow Zone and eight in the Lower Queen) was conducted.

Liquid-level measurements obtained from each well in June 2023 and November 2023 and the surveyed well elevations were used to calculate groundwater elevations, with density corrections to the water level made where condensate was present. The resulting elevation data were used to generate groundwater piezometric contour maps for the Shallow Zone and Lower Queen aquifers. Review of these maps and the elevation data indicate Shallow Zone and Lower Queen groundwater flow was generally consistent with patterns observed in previous years. Flow in the Shallow Zone is to the southeast at an approximate gradient of 0.014 ft/ft, and flow in the Lower Queen is generally to the northwest at an approximate gradient of 0.001 ft/ft.

In June 2023, groundwater samples were collected from three Shallow Zone monitoring wells (MW-45, MW-49, and MW-106) and five Lower Queen monitoring wells (MW-66, MW-70, MW-88, MW-111 and MW-127). The purging and sampling techniques utilized low-flow procedures which were approved and implemented in 2003. Shallow monitoring wells MW-14, MW-46 and MW-77 were not sampled because they did not contain sufficient volume of water for sampling. MW-126 was not sampled because it contained condensate. Lower Queen monitoring wells MW-58, MW-81 and MW-113 were not sampled due the presence of condensate in these monitoring wells. The analytical results indicate that BTEX concentrations in the sampled Shallow Zone monitoring wells (0.6 µg/L in MW-49 and non-detected in the other wells) were below the NMOCD regulatory levels. No BTEX was detected in the five sampled Lower Queen wells. In general, TDS and chloride concentrations in the sampled Shallow Zone monitoring wells were within historical levels, except MW-106 which contained TDS of 230 mg/L which is below the historical range. The TDS and chloride concentrations in well MW-106 were below the NMOCD regulatory limits. The TDS in MW-45 (5,380 mg/L) and MW-49 (3,940 mg/L) exceeded the NMOCD regulatory limit of 1,000 mg/L. Chloride in MW-45 (266 mg/L), MW-49 (317 mg/L) exceeded the NMOCD regulatory limit of 250 mg/L. The TDS and chloride concentrations in the sampled Lower Queen wells were all below NMOCD regulatory limits, except MW-111 which had TDS of 1,120 mg/L (above the NMOCD standard).

Groundwater monitoring at the site will continue to be conducted according to the requirements outlined in the February 20, 2009 NMOCD letter. Based on the current program schedule, the next annual groundwater monitoring event will be conducted in June 2024 and the semi-annual groundwater gauging event will be conducted in November 2024. An annual report will be prepared at the conclusion of each Fall groundwater gauging event and will be submitted to the NMOCD.

## 2023 Annual Groundwater Monitoring Report

### INTRODUCTION

Arcadis prepared this Annual Groundwater Monitoring report on behalf of OXY USA WTP Limited Partnership (Oxy) for the Indian Basin Remediation Project (IBRP) at the Indian Basin Gas Plant located in Eddy County, New Mexico. This report contains the results of the June 2023 annual groundwater monitoring event, the semi-annual groundwater gauging event conducted in November 2023 and includes historical groundwater monitoring data. This report is prepared in accordance with the groundwater monitoring requirements outlined in correspondence by the New Mexico Energy, Minerals, and Natural Resources Department, New Mexico Oil Conservation Division (NMOCD) to Marathon Oil Company dated February 20, 2009 prior to OXY operating the facility.

### BACKGROUND

The IBGP (site) is located approximately 20 miles northwest of Carlsbad, New Mexico, as shown on Figure 1. The site is situated in Township 21 South, Eddy County, and occupies portions of Range 23 East (Sections 13, 23, 24, 25, and 26) and Range 24 East (Sections 19 and 30). Remediation efforts at the site were initiated in April 1991 and were designed to remove separate-phase petroleum hydrocarbons present in the subsurface, primarily condensate.

The geology underlying the site is comprised of two distinct zones, both with saturated and unsaturated strata. The two geologic units are referred to as the Shallow Zone and the Lower Queen. Before March 2003, there were a total of 150 wells (78 Shallow Zone and 72 Lower Queen) and two shallow sumps present at the site related to the IBRP. However, with NMOCD approval, 39 Shallow Zone wells were plugged and abandoned in March 2003, reducing the well total to 111 wells and two shallow sumps. The remaining wells and two sumps were used for a combination of groundwater monitoring, groundwater and condensate recovery, treated groundwater infiltration and condensate vapor extraction.

In May 2008, a report entitled "Evaluation of Natural Attenuation, Indian Basin Remediation Project, Eddy County, New Mexico" was submitted to the NMOCD. The report described the natural attenuation processes occurring at the site and recommended closure of the IBRP. In addition, a letter entitled "Proposed Indian Basin Remediation Project Well Plugging Program" was submitted to the NMOCD in February 2009. The NMOCD responded to the May 2008 report and February 2009 plugging program letter in correspondence dated February 20, 2009. In the February 20, 2009 correspondence, the NMOCD stated that the report and well plugging request were substantially acceptable, and conditionally approved the discontinuance of active remediation at the site. However, the NMOCD required at least annual groundwater monitoring for BTEX, TDS and chloride for a total of 15 wells, and semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness. In addition, the NMOCD required that an annual groundwater monitoring report be submitted. The NMOCD correspondence is included in Appendix E.

In March and April 2009, a total of 95 wells (including the two shallow sumps) were plugged and abandoned. Three water supply wells (SW-1, SW-2 and SW-3) originally included in the proposed plugging program were not plugged, because they were needed to supply water for site operations. A report documenting the well plugging activities was submitted to the NMOCD in June 2009. The NMOCD approved the plugging report through email correspondence dated June 17, 2009 (Appendix E).

## 2023 Annual Groundwater Monitoring Report

Table 1 lists the 15 wells currently in the groundwater monitoring program and monitoring requirements. Figure 2 depicts the site layout, including the locations of the remaining Shallow Zone and Lower Queen wells. Additional details regarding local and regional geology and hydrogeology are presented in the report entitled "Comprehensive Site Characterization Report for the IBRP", submitted to the NMOCD in December 1998.

## GROUNDWATER AND CONDENSATE GAUGING

Groundwater gauging was conducted in June 2023 and November 2023. The gauging events consisted of collecting liquid-level measurements from the wells listed in Table 1 for both the Shallow Zone and Lower Queen. The results of the gauging events and precipitation (rainfall) information are discussed in the following sections. A summary of the June 2023 groundwater gauging results is provided in Table 2. The November 2023 groundwater gauging results are summarized in Table 3. Historical groundwater gauging data for the monitoring wells at the site are presented in Appendix A.

### Shallow Zone Aquifer

Seven monitoring wells completed in the Shallow Zone were gauged during the June 2023 and November 2023 events. The liquid-level measurements and the top of casing elevations for the wells were used to calculate the groundwater elevation at each well. Density corrections to the water level elevations were made for wells containing condensate.

From November 2022 to June 2023, groundwater elevations (including density corrections for condensate, if present) decreased in Shallow Zone wells MW-14 (-0.98 ft), MW-45 (-1.31 ft), MW-46 (-1.63 ft.) and MW-49 (-0.61 ft). The groundwater elevation in MW-106 was the same in November 2022 and June 2023. MW-77 and MW-126 were dry in June 2023. The groundwater elevations did not increase from November 2022 to June 2023 for any of the Shallow Zone wells. During the June 2023 event, no measurable condensate thickness was detected in any of the Shallow Zone monitoring wells. Historically, MW-126 has had condensate thicknesses ranging from 0 to 3.96 feet.

From June to November 2023, groundwater elevations (including density corrections for condensate, if present) decreased in Shallow Zone wells MW-14 (-0.79 ft.), MW-46 (-0.02 ft.) and MW-49 (-0.63 ft). The groundwater elevation in MW-46 and MW-106 increased from June to November 2023 by 0.20 feet and 0.67 ft., respectively. During the November 2023 water level gauging event, trace condensate was detected in one Shallow Zone monitoring well MW-77. Condensate was not detected in any other Shallow Zone well in June or November 2023.

Groundwater elevation contour maps were prepared based on the June 2023 and November 2023 groundwater elevation data (Figures 3 and 7). As shown on Figures 3 and 7, the observed groundwater flow direction in the Shallow Zone is to the southeast at an approximate gradient of 0.014 ft./ft. The flow direction and gradient are generally consistent with historical patterns.

### Lower Queen Aquifer

The eight monitoring wells completed in the Lower Queen were gauged during the June and November 2023 gauging events. The liquid-level measurements and the top of casing elevations for the wells were

## 2023 Annual Groundwater Monitoring Report

then used to calculate the groundwater elevation at each well. Density corrections to the water level were made as required where condensate was present.

During the June 2023 gauging event, trace condensate was observed in Lower Queen monitoring wells MW-58 and MW-113. MW-81 had condensate thickness of 0.06 feet. Historically, condensate thickness ranged from 0 to 5.26 feet in MW-58, 0 to 12.08 feet in MW-81 and 0 to 0.88 feet in MW-113. The water level elevation in MW-58 has experienced broad fluctuations over the latter part of 2015 to the gauging events in 2022. As discussed in earlier annual reports, the cause of this fluctuation is possibly due to measurement interference created by biomass in the well which was reported historically for the gauging events conducted in 2001. During the November 2023 gauging event, trace condensate was observed in monitoring wells MW-58 and MW-113.

From November 2022 to June 2023, the groundwater elevation (including density corrections for condensate, if present) increased in Lower Queen monitoring well MW-58 by 0.34 feet. The groundwater elevation decreased in the other seven Lower Queen monitoring wells MW-66 (-0.34 ft.), MW-70 (-0.48 ft.), MW-81 (-0.36 ft.), MW-88 (-0.29 ft.), MW-111 (-0.35 ft.), MW-113 (-0.19 ft.) and MW-127 (-0.36 ft.).

From June to November 2023, groundwater elevations (including density corrections for condensate, if present) increased in Lower Queen monitoring wells MW-58 (0.76 ft.), MW-81 (3.17 ft.) and MW-111 (0.83 ft.). The groundwater elevation in the remaining five wells, MW-66 (0.05 ft.), MW-70 (-0.27 ft.), MW-88 (-0.04 ft.), MW-113 (-0.27 ft.) and MW-127 (-0.17 ft.) decreased from June to November 2023.

Groundwater elevation contour maps were prepared based on the June and November 2023 groundwater elevation data (Figures 4 and 8). As shown on Figures 4 and 8, the observed groundwater flow direction in the Lower Queen is generally to the northwest at an approximate gradient of 0.001 ft./ft. The flow direction is generally consistent with historical patterns and the gradient is at the low end of the historical range.

## Precipitation Recharge

Table 4 summarizes monthly rainfall for the area during 2023 along with historical precipitation since 1994. From 1994 through 2006, the precipitation records were from the Indian Basin Gas Plant. For the years 2007 through 2023, the precipitation records are from a weather station located in Carlsbad, New Mexico. The site has historically received the highest amounts of precipitation between the months of June and October. The average annual rainfall measured over the past five years (2019 to 2023) is approximately 9.83 inches which is below the long-term average for the area of approximately 10.77 inches per year. During 2023, data from the Carlsbad station indicated that the highest amount of precipitation was received in October (2.90 inches) with a total of 6.07 inches reported for the year (0.94 inches below the long-term average). The 4.60 inches of total rainfall in 2020 was the lowest recorded in the last 12 years (5.84 inches were recorded in 2011).

In general, water levels in both the Shallow Zone and the Lower Queen seem to rise in the Fall months and decline in the Spring / Summer months which corresponds to the observed rainfall pattern of greater amount of rainfall / precipitation in the second half of the year than the first half of the year.

## 2023 Annual Groundwater Monitoring Report

## GROUNDWATER SAMPLING AND ANALYSIS

In a letter dated February 20, 2009 (Appendix E), the NMOCD required annual groundwater monitoring for BTEX, TDS and chloride for seven Shallow Zone and eight Lower Queen monitoring wells. Arcadis personnel conducted the 2023 annual groundwater sampling event at the site on June 21 and June 22, 2023. All samples were collected using low flow purging and sampling techniques.

The groundwater samples collected were placed in laboratory-provided sample containers appropriate for the specified laboratory analysis. Each sample container was properly labelled with a unique sample identification number and placed on ice in a laboratory-provided sample cooler and shipped by overnight delivery to ALS Environmental in Houston, Texas for analysis. A properly completed chain-of-custody (COC) form accompanied each cooler containing the samples. The COC showed the sample number, the time of collection, the sample preservative and the analyses to be performed.

Table 5 summarizes the BTEX, chloride and TDS analytical results for the June 2023 event. Summaries of historical BTEX, TDS and chloride analytical data are presented in Appendix B. The complete laboratory analytical report for the annual groundwater sampling event in 2023 is contained in Appendix C. GHD performed the data validation of the laboratory data for the June 2023 sampling event. A copy of the data validation report is contained in Appendix D.

The groundwater monitoring analytical results for both the Shallow Zone and Lower Queen are discussed in the following sections.

### Shallow Zone Aquifer

#### BTEX Analysis

Groundwater samples were collected from three Shallow Zone monitoring wells (MW-45, MW-49 and MW-106) for the June 2023 sampling event. MW-14, MW-46, MW-77 and MW-126 were not sampled because they did not contain sufficient volume of water for sampling or were dry. The results of the BTEX laboratory analysis of the Shallow Zone groundwater samples are summarized as follows:

- Benzene was not detected in two of the three monitoring wells sampled (MW-45 and MW-106).
- Benzene was detected below the MNOCD standard of 10 µg/L in the June 2023 sample from MW-49. The detected concentration was 0.60 µg/L. Benzene was detected at a concentration of 4.1 µg/L in this well in the previous sampling event in June 2022 but was not detected in this well in the sampling event in June 2021. A concentration of 15.4 µg/L was detected in this well in the June 2020 sampling event (above the NMOCD regulatory limit of 10 µg/L).
- BTEX was not detected in any of the remaining Shallow Zone monitoring wells for the June 2023 sampling event.

Figure 5 illustrates the distribution of dissolved BTEX compounds in the Shallow Zone aquifer in June 2023. As indicated by the historical data in Appendix B, BTEX concentrations in this water-bearing zone have generally remained stable or declined over time.

## 2023 Annual Groundwater Monitoring Report

### Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples collected in June 2023 from the Shallow Zone monitoring wells were analyzed for TDS and chloride. The results for TDS and chloride are summarized as follows:

- TDS concentration in MW-106 (230 mg/L) was below the NMOCD standard and below the historical concentration range of 350 mg/L to 540 mg/L.
- TDS concentrations were detected above the NMOCD standard in the remaining two Shallow Zone monitoring wells sampled (MW-45 and MW-49). The TDS concentration in MW-45 (5,380 mg/L) was within the prior historical range (2,540 to 6,480 mg/L) for this well. The TDS concentration in MW-49 (3,940 mg/L) was within the historical range of 2,600 mg/L to 5,220 mg/L recorded for this well.
- As mentioned earlier, MW-14 and MW-46 were not sampled during the June 2023 sampling event because they did not contain enough water for sample collection. These two monitoring wells were also not sampled in June 2021 and June 2022 for the same reason. For the sampling event performed in June 2020, the TDS concentration in MW-14 (1,360 mg/L) and MW-46 (1,630 mg/L) had declined significantly from the levels detected in 2019 and were back within the historical ranges for these wells of 1,000 mg/L to 1,610 mg/L for MW-14 and 490 mg/L to 2,300 mg/L for MW-46.
- Chloride concentration in MW-106 (4.04 mg/L) was below the NMOCD standard and within the historical range of 2.3 mg/L to 12 mg/L.
- Chloride concentration was detected above the NMOCD standard in MW-45 (266 mg/L) which represents a decrease in concentration from 313 mg/L in 2022 and 497 mg/L in 2021. The chloride concentrations in MW-45 were consistently below the NMOCD standard from 2011 to 2020 (except 314 mg/L in 2022 and 308 mg/L in 2017) but were consistently above it (ranging up to 507 mg/L, except for 174 mg/L in 2009) based on the available data for 1991 through 2010.
- The chloride concentration in MW-49 was 317 mg/L in 2023 which represents a decrease in concentration from 343 mg/L in 2022. The historical chloride concentration range in MW-49 is 36 mg/L (1996) to 570 mg/L (2003).

A summary of the TDS and chloride analytical results for 2023 is provided in Table 5. Appendix B contains a summary of the historical chloride and TDS data. A Copy of the analytical laboratory report for 2023 is included in Appendix C. Figure 5 depicts TDS and chloride concentrations in the wells sampled in June 2023.

### Lower Queen Aquifer

#### BTEX Analysis

Groundwater samples were collected from five Lower Queen monitoring wells (MW-66, MW-70, MW-88, MW-111 and MW-127) in June 2023. Samples were not collected from MW-58, MW-81 and MW-113 because they contained condensate. No BTEX was detected in any of the five sampled Lower Queen monitoring wells in 2023 and 2022. In 2021, benzene and toluene were detected in MW-70 in low concentrations of 7.1 µg/L and 5.71 µg/L, respectively, below the NMOCD regulatory limit for benzene

## 2023 Annual Groundwater Monitoring Report

and toluene of 10 µg/L and 750 µg/L, respectively. Figure 6 illustrates the distribution of dissolved BTEX compounds in the Lower Queen in June 2023.

### Wet Chemistry Analysis

In addition to BTEX analysis, groundwater samples were collected in June 2023 from the Lower Queen monitoring wells MW-66, MW-70, MW-88, MW-111 and MW-127 and analyzed for TDS and chlorides. The results of the TDS and chloride laboratory analyses for the Lower Queen monitoring wells are summarized as follows:

- TDS concentrations were below the NMOCD standard of 1,000 mg/L in all samples collected from the Lower Queen monitoring wells, except MW-111 for which a TDS of 1,120 mg/L was detected. The TDS in MW-111 was 768 mg/L in 2022 and historically has been less than 1,000 mg/L and ranged from 616 mg/L to 900 mg/L. The TDS concentration in MW-88 was 620 mg/L in 2023 which is a decline from 1,020 in 2022. Historically, the TDS in this well ranged from 750 mg/L to 1,030 mg/L. For the June 2023 sampling event, the TDS concentrations for the Lower Queen monitoring wells ranged from 14 mg/L in MW-70 to 1,120 mg/L in MW-88. The 14 mg/L TDS reported for MW-70 in 2023 is questionable in view of the chloride concentration being 10.1 mg/L and the historical TDS range for this well being 270 mg/L to 1,750 mg/L.
- Chloride concentrations were well below the NMOCD standard of 250 mg/L in all five samples collected from the Lower Queen monitoring wells in 2023. The chloride concentrations ranged from 10.1 mg/L in MW-70 to 35.2 mg/L in MW-127.

A summary of the laboratory analysis data for TDS and chloride is provided in Table 5. Appendix B contains a summary of the historical TDS and chloride data. A copy of the analytical laboratory report is included in Appendix C. Figure 6 depicts TDS and chlorides in the Lower Queen monitoring wells sampled in June 2023.

## SUMMARY

### Groundwater Monitoring

Results of the annual groundwater monitoring event conducted in June 2023 and the groundwater gauging event conducted in November 2023 indicated similar groundwater conditions present as in prior years. Wells containing trace or measurable condensate in June and November 2023 were consistent with historical results. Analytical results for BTEX, chloride and TDS were similar to the historical data for the sampled wells. The TDS of 1,120 mg/L in MW-111 was above the NMOCD standard of 1,000 mg/L and above the historical TDS range for this well of 616 mg/L to 900 mg/L.

As in 2022, benzene was detected in Shallow Zone monitor well MW-49 at a concentration below the NMOCD standard of 10.0 µg/L. No BTEX was detected in any of the Lower Queen monitor wells in 2022 or 2023.

## 2023 Annual Groundwater Monitoring Report

### Groundwater Monitoring Plan

For 2024, groundwater monitoring will continue at the Indian Basin Gas Plant in accordance with the requirements outlined in the February 20, 2009 NMOCD letter (Appendix E) including annual groundwater monitoring for BTEX, TDS and chloride for the seven Shallow Zone and eight Lower Queen monitoring wells at the site, and semi-annual gauging of depth to groundwater and non-aqueous phase liquid thickness. In addition, an annual groundwater monitoring report will be submitted to the NMOCD. Based on the current program schedule, the annual groundwater monitoring event for 2024 is planned to be conducted in June and the semi-annual groundwater gauging event conducted in November. The annual report will be prepared and submitted to the NMOCD during the first half of 2025.

# TABLES



Table 1. Groundwater Monitoring Plan  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant  
 Eddy County, New Mexico.

**Shallow Zone Sampling Schedule**

Well ID	Spring		Fall
	Annual	Analytical Parameters Annual	Semi-Annual
MW-14	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-45	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-46	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-49	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-77	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-106	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-126	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging

**Lower Queen Sampling Schedule**

Well ID	Spring		Fall
	Annual	Analytical Parameters Annual	Semi-Annual
MW-58	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-66	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-70	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-81	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-88	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-111	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-113	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging
MW-127	Groundwater Gauging	BTEX, Chloride, TDS	Groundwater Gauging

Notes:

TDS Total Dissolved Solids  
 BTEX Benzene, Toluene, Ethylbenzene, and Total Xylenes

Table 2. Summary of Groundwater Gauging Results, June 2023  
 Semi-Annual Groundwater Gauging Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing	Easting	Total Depth From TOC (ft)	Top of Casing (ft amsl)	Top of Casing Stickup (ft agl)	DTW (feet)	DTP (feet)	PT (feet)	PT x 0.73 (feet)	ADJ DTW (feet)	WL Elev (ft amsl)	Comments
		NAD 27 Con hddd,mm',ss.s"											
<b>Shallow Zone</b>													
MW-14	4	32 27 44.3	104 34 00.9	NR	3803.61	2.08	23.13	---	---	---	---	3780.48	
MW-45	2	32 28 01.1	104 34 08.7	NR	3808.68	1.60	21.36	---	---	---	---	3787.32	
MW-46	4	32 27 56.7	104 34 05.8	NR	3805.54	1.90	19.25	---	---	---	---	3786.29	
MW-49	2	32 27 57.6	104 33 59.9	NR	3805.61	1.90	21.97	---	---	---	---	3783.64	
MW-77	7.875	32 27 27.3	104 33 25.0	90.21	3775.48	2.38	DRY	---	---	---	---	--	Well Dry
MW-106	4	32 26 57.0	104 32 26.4	NR	3721.97	2.61	89.34	---	---	---	---	3632.63	
MW-126	4	32 27 48.2	104 33 49.9	68.31	3796.28	3.33	DRY	---	---	---	---	---	Well Dry
<b>Lower Queen</b>													
MW-58	7.875	32 28 04.5	104 33 28.5	NR	3824.07	3.48	198.58	---	---	---	---	3625.49	Trace condensate present
MW-66	4	32 28 19.1	104 33 28.5	NR	3828.98	2.60	204.34	---	---	---	---	3624.64	
MW-70	4	32 27 18.8	104 34 05.5	NR	3822.57	2.71	196.99	---	---	---	---	3625.58	
MW-81	7.875	32 28 04.3	104 33 19.5	NR	3817.03	3.98	190.92	190.86	0.06	0.04	190.88	3626.15	Condensate present
MW-88	4	32 28 25.3	104 32 55.6	NR	3789.70	2.71	164.88	---	---	---	---	3624.82	
MW-111	4	32 28 15.9	104 34 06.1	NR	3824.44	1.85	201.17	---	---	---	---	3623.27	
MW-113	7.875	32 27 16.3	104 33 32.1	NR	3772.67	1.82	146.63	---	---	---	---	3626.04	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8	NR	3825.17	2.63	200.51	---	---	---	---	3624.66	

Foot Notes: TOC Top of Casing  
 DTW Depth to Water  
 DTP Depth to Product  
 PT Product Thickness  
 ADJ DTW Adjusted Depth to Water  
 WL Water Level

Table 3. Summary of Groundwater Gauging Results, November 2023  
 Semi-Annual Groundwater Gauging Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well Number	Well Diameter (in)	Northing	Easting	Total Depth From TOC (ft)	Top of Casing (ft amsl)	Top of Casing Stickup (ft agl)	DTW (feet)	DTP (feet)	PT (feet)	PT x 0.73 (feet)	ADJ DTW (feet)	WL Elev (ft amsl)	Comments
		NAD 27 Con hddd,mm',ss.s"											
<b>Shallow Zone</b>													
MW-14	4	32 27 44.3	104 34 00.9		3803.61	2.08	23.92	---	---	---	---	3779.69	
MW-45	2	32 28 01.1	104 34 08.7		3808.68	1.60	21.16	---	---	---	---	3787.52	
MW-46	4	32 27 56.7	104 34 05.8		3805.54	1.90	19.27	---	---	---	---	3786.27	
MW-49	2	32 27 57.6	104 33 59.9		3805.61	1.90	22.6	---	---	---	---	3783.01	
MW-77	7.875	32 27 27.3	104 33 25.0		3775.48	2.38	81.86	---	---	---	---	3693.62	Trace condensate
MW-106	4	32 26 57.0	104 32 26.4		3721.97	2.61	88.67	---	---	---	---	3633.30	
MW-126	4	32 27 48.2	104 33 49.9		3796.28	3.33	68.91				68.91	3727.37	
<b>Lower Queen</b>													
MW-58	7.875	32 28 04.5	104 33 28.5		3824.07	3.48	197.82				197.82	3626.25	Trace condensate
MW-66	4	32 28 19.1	104 33 28.5		3828.98	2.60	204.39				204.39	3624.59	
MW-70	4	32 27 18.8	104 34 05.5		3822.57	2.71	197.26				197.26	3625.31	
MW-81	7.875	32 28 04.3	104 33 19.5		3817.03	3.98	187.71				187.71	3629.32	
MW-88	4	32 28 25.3	104 32 55.6		3789.70	2.71	164.92				164.92	3624.78	
MW-111	4	32 28 15.9	104 34 06.1		3824.44	1.85	200.34				200.34	3624.10	
MW-113	7.875	32 27 16.3	104 33 32.1		3772.67	1.82	146.90				146.90	3625.77	Trace condensate
MW-127	8.25	32 28 00.8	104 33 58.8		3825.17	2.63	200.68	---	---	---	---	3624.49	

Foot Notes: TOC Top of Casing PT Product Thickness  
 DTW Depth to Water ADJ DTW Adjusted Depth to Water  
 DTP Depth to Product WL Water Level

Table 4. Summary of Historical Rainfall with Monthly Rainfall During 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant  
 Eddy County, New Mexico.

Historical Rainfall	
Year	Rainfall (inches)
1994	9.31
1995	7.84
1996	16.60
1997	10.65
1998	3.95
1999	4.70
2000	9.75
2001	6.02
2002	12.70
2003	7.58
2004	26.96
2005	11.16
2006	17.49
2007	19.02*
2008	9.39*
2009	11.96*
2010	17.32*
2011	5.84*
2012	11.14*
2013	11.38*
2014	23.53*
2015	16.49*
2016	11.96*
2017	12.38*
2018	11.16*
2019	12.76*
2020	4.6*
2021	15.56*
2022	10.15*
2023	6.07*
Monthly Rainfall During 2023	
Month	Rainfall (inches)
January	0.53
February	0.03
March	0.00
April	0.00
May	0.25
June	0.35
July	0.05
August	0.80
September	0.77
October	2.90
November	0.27
December	0.12
2023 Annual Total	6.07

Source: Rain gauge at Indian Basin Gas Plant  
 \*Changed in 2007 to a station located in Carlsbad, NM

Table 5. Summary of Analytical Results, June 2023  
 Annual Groundwater Sampling Event  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico.

Well ID	Sample Date	Analytical Parameters					
		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Chloride (mg/L)	TDS (mg/L)
<b>OCD Regulatory Limits</b>		10	750	750	620	250	1,000
<b>Shallow Zone Wells</b>							
MW-14		Not Sampled - not enough water to collect sample					
MW-45	6/22/2023	<0.20	<0.20	<0.30	<0.30	266	5,380
MW-46		Not Sampled - not enough water to collect sample					
MW-49	6/22/2023	0.6	<0.20	<0.30	<0.30	317	3,940
MW-77		Not Sampled - not enough water to collect sample					
MW-106	6/22/2023	<0.20	<0.20	<0.30	<0.30	4.04	230
MW-126		Not Sampled - well contained condensate					
<b>Lower Queen Wells</b>							
MW-58		Not Sampled - well contained condensate					
MW-66	6/22/2023	<0.20	<0.20	<0.30	<0.30	8.93	604
MW-70	6/22/2023	<0.20	<0.20	<0.30	<0.30	10.1	14
MW-81		Not Sampled - well contained condensate					
MW-88	6/22/2023	<0.20	<0.20	<0.30	<0.30	26.9	620
MW-111	6/22/2023	<0.20	<0.20	<0.30	<0.30	29.4	1,120
MW-113		Not Sampled - well contained condensate					
MW-127	6/22/2023	<0.20	<0.20	<0.30	<0.30	35.2	324

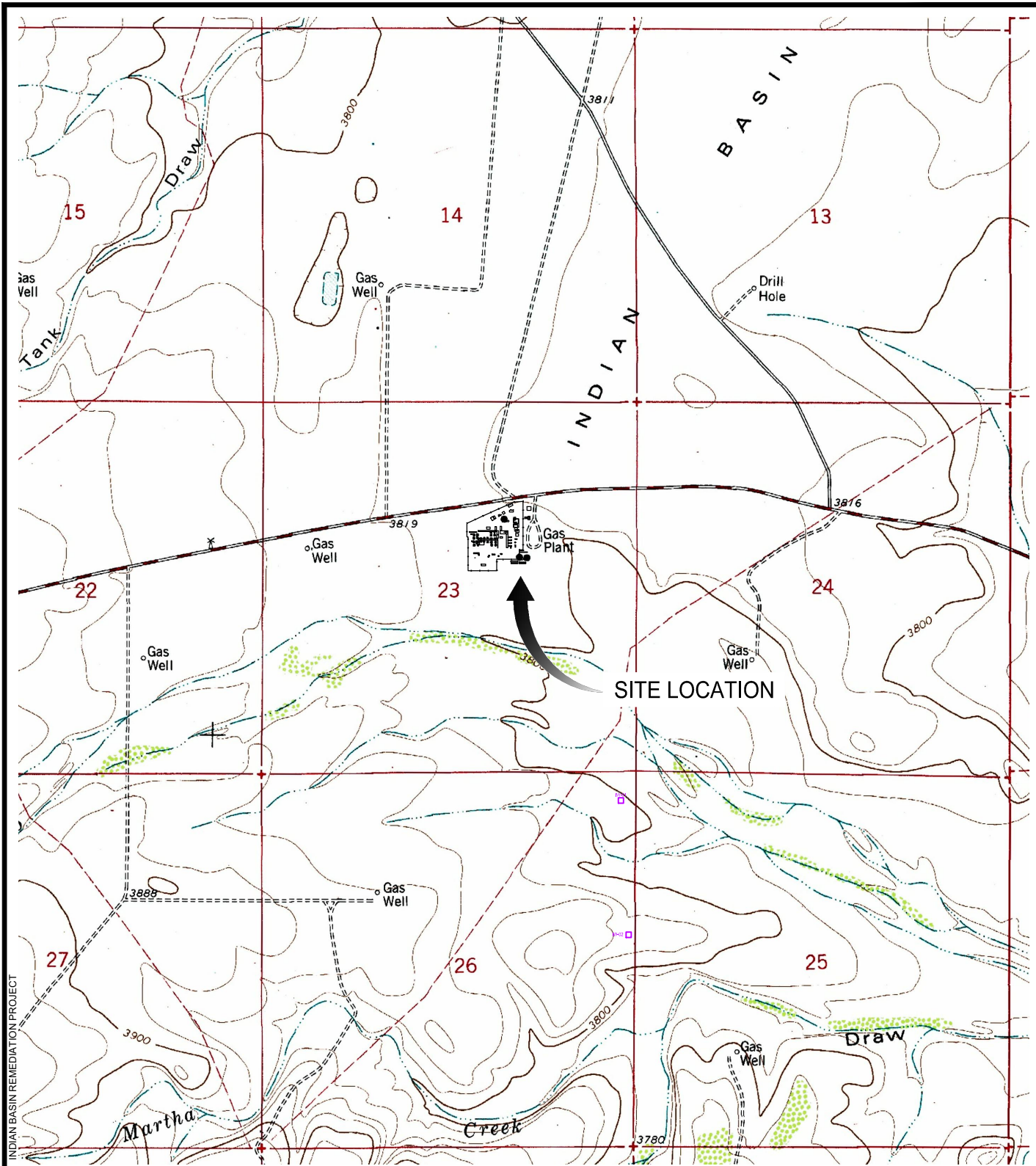
Notes:

ug/L	Micrograms per liter
mg/L	Milligrams per liter
<5	Compound below the laboratory detection limit
6	Indicates result above the detection limit and below the NMOCD standard
16	Indicates result at/above the NMOCD standard

# FIGURES



CITY: Milwaukee, WI GROUP: ENV DB: C. McKeough, LD: PIC: M. Sanford PM: H. McConnell TM: A. Slides TR: LYR: ON\*OFF=REF UN: 31-009-00471  
C:\Users\cmckeough\BIM 360\Arcadis\ANA - OXY USA\INCI\Project Files\OXY\INDIAN BASIN\20230415\062019 Annual Rpt\01-DWG1-SUM.dwg LAYOUT: 1 SAVED: 3/19/2019 12:20 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: BLACKGRAY.CTB PLOTTED: 2/14/2020 11:52 AM BY: MCKEOUGH, CAROL



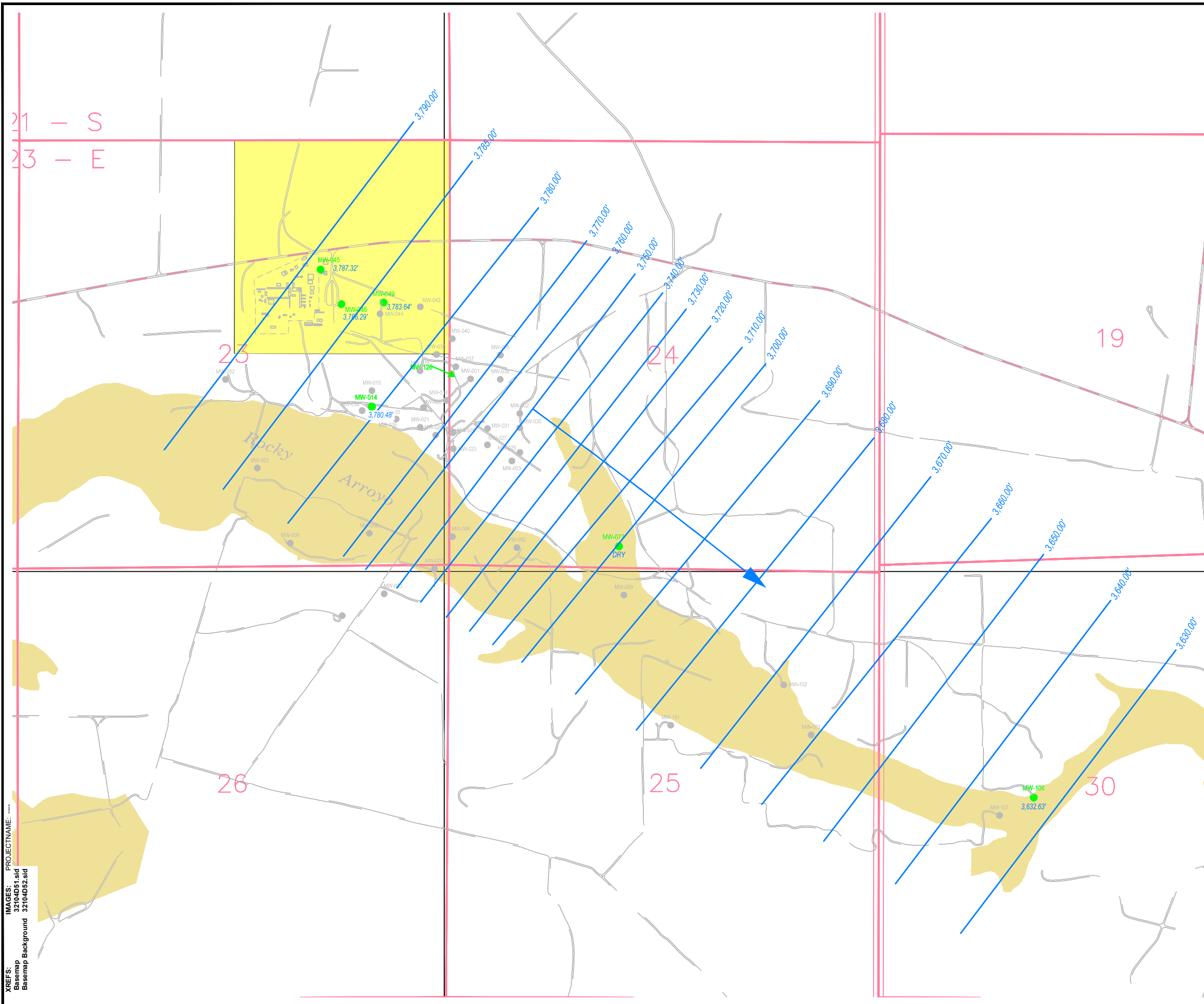
SOURCE: U.S. GEOLOGICAL SURVEY 7.5 MINUTE TOPOGRAPHIC SERIES, MARTHA CREEK, NEW MEXICO QUADRANGLE, PUBLISHED 1978.



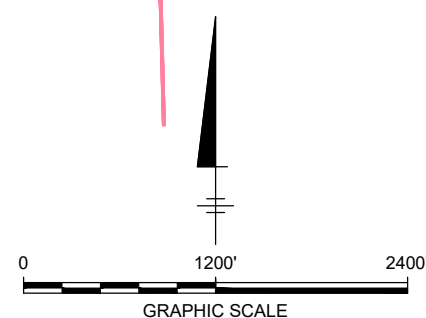
OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO <b>INDIAN BASIN GAS PLANT</b> <b>2023 ANNUAL REPORT</b>	
<b>SITE LOCATION MAP</b>	
	Design & Consultancy for natural and built assets
FIGURE <b>1</b>	



C:\Users\schilling\OneDrive\Arcadis\AUS-OXY USA\INDIAN BASIN\EDDY COUNTY New Mexico\Project Files\202301-In Progress\01-DWG\3-SHALLOW GW CONTOURS 0622.dwg LAYOUT: 3 SAVED: 7/20/2023 9:50 AM ACADVER: 24.2S (LMS TECH) PAGES: 10 PLOTSTYLETABLE: BLACKGRAY.ctb PLOTTED: 7/20/2023 9:51 AM BY: SCHILLING, ADAM



T - 21 - S  
R - 24 - E



**LEGEND**

- MONITORING WELL
- PLUGGED MONITORING WELL
- ▲ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
- 3,632.63' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
- 3,780.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 10 FEET
- ▲ GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

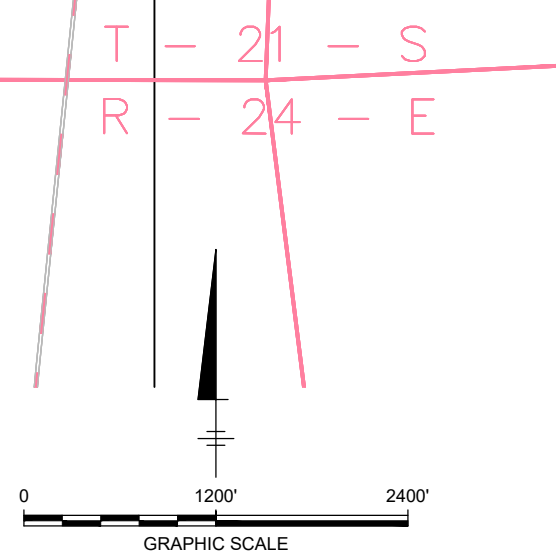
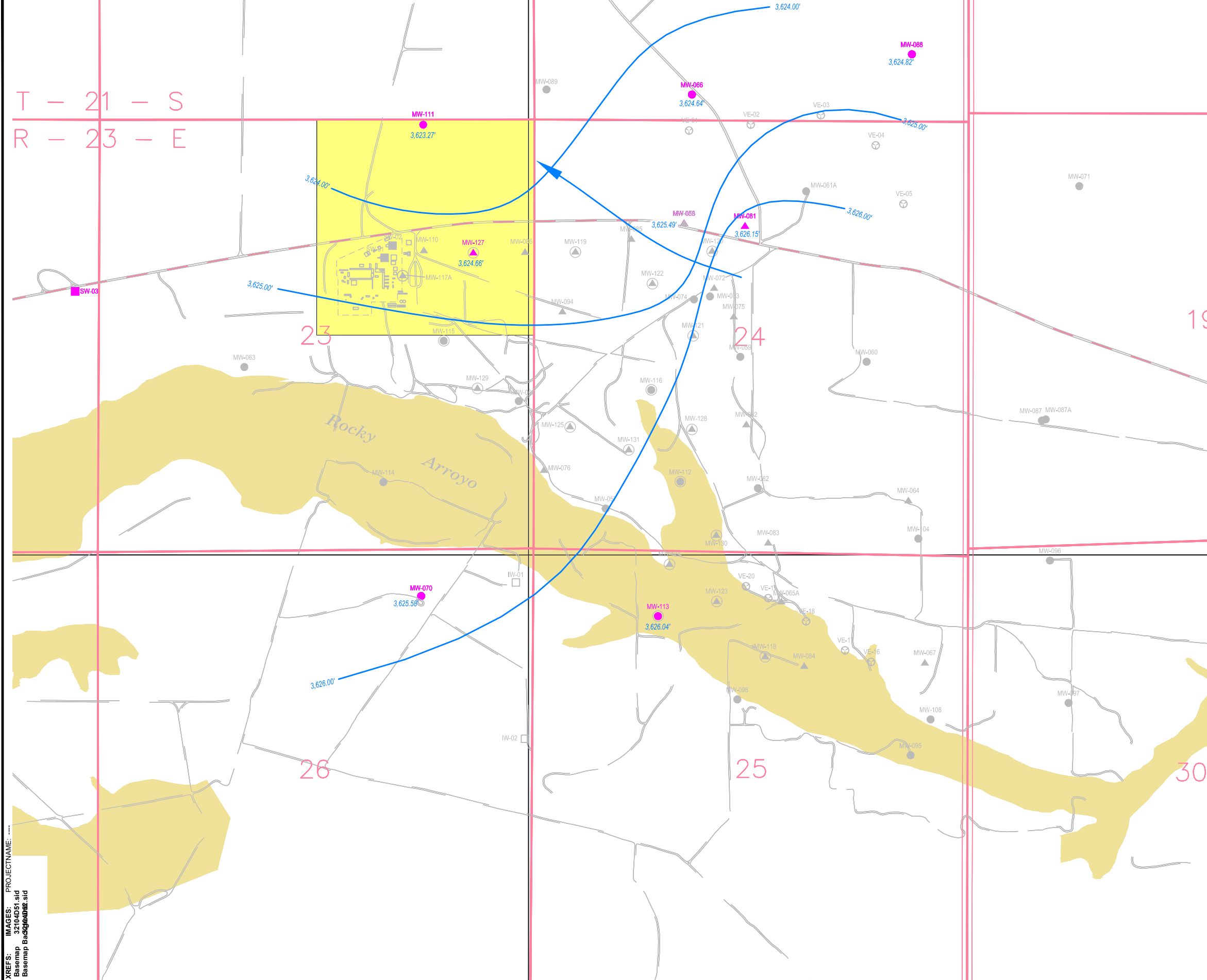
OXY USA WTP LIMITED PARTNERSHIP  
EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT**  
2023 ANNUAL REPORT

**SHALLOW ZONE GROUNDWATER ELEVATION CONTOURS**  
JUNE 2023

**ARCADIS** Design & Consultancy for natural and built assets

FIGURE 3

C:\Users\mcleugh\OneDrive\Arcadis\US\OXY USA\INDIAN BASIN\EDDY COUNTY, New Mexico\Project Files\2023\01-In Progress\01-1-DWG\4-LOWER QUEEN GW CONTOURS 0622.dwg LAYOUT: 4 SAVED: 12/19/2023 12:33 PM ACADVER: 24.2S (LMS TECH) PAGES: 1 PLOTSTYLETABLE: BLACKGRAY.ctb PLOTTED: 12/19/2023 12:34 PM BY: MCKEOUGH, CAROL

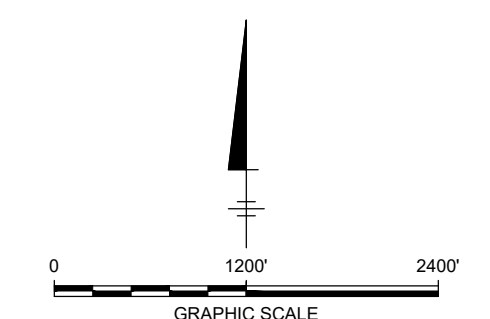
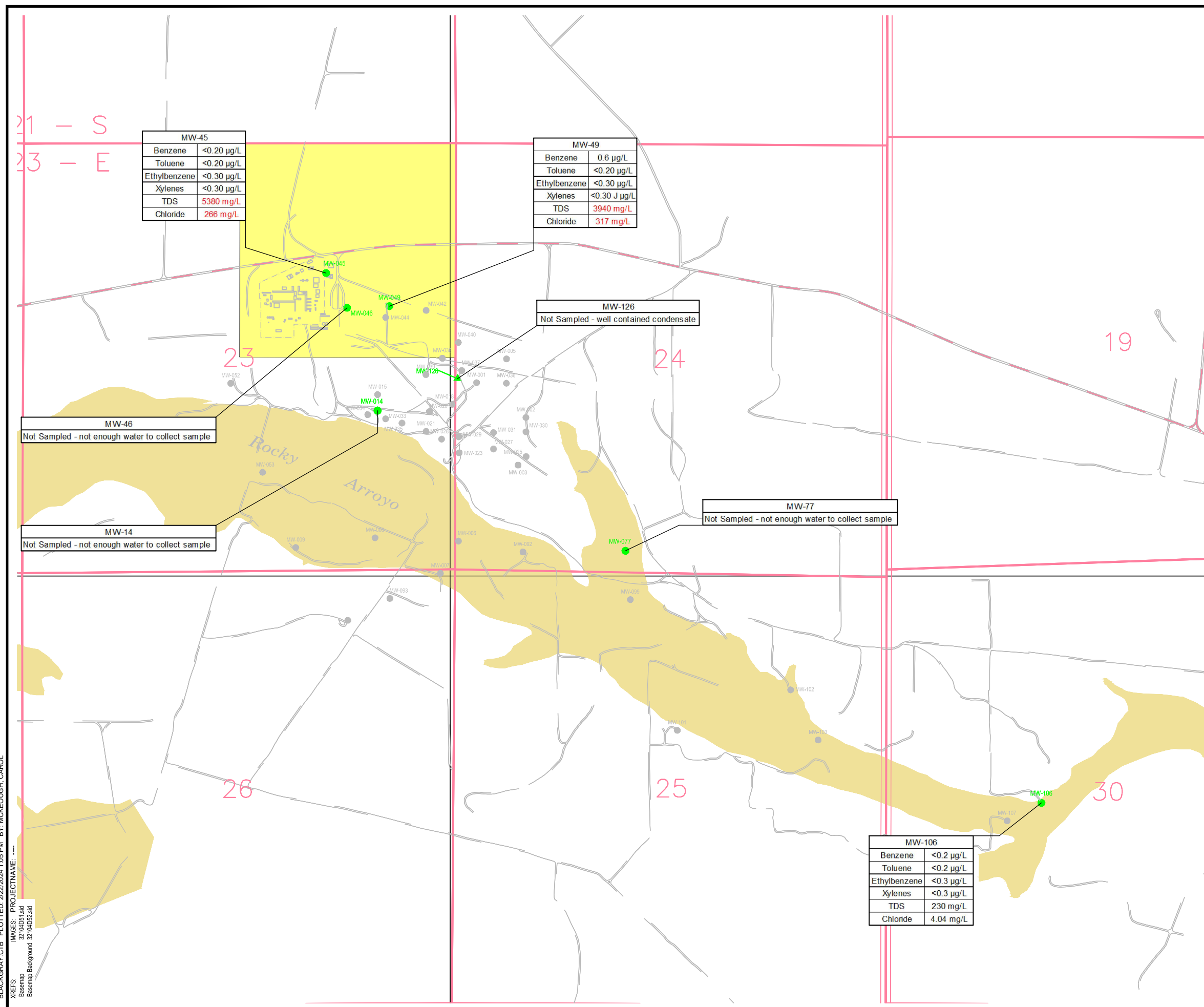


- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - ▲ PLUGGED RECOVERY WELL
  - PLUGGED INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE II INFILL WELL INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE I INFILL WELL INSTALLED DURING JULY, 1999
  - PLUGGED INFILTRATION WELL
  - ⊕ PLUGGED VAPOR EXTRACTION WELL
  - 3,625.58' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 3,626.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 2 FEET
  - GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

<p>OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO <b>INDIAN BASIN GAS PLANT</b> 2023 ANNUAL REPORT</p>	
<p><b>LOWER QUEEN GROUNDWATER</b> ELEVATION CONTOURS JUNE 2023</p>	
	<p>FIGURE <b>4</b></p>

C:\Users\cmcleough\Documents\Arcadis\ACCUS\AUS-9909999-00\INDIAN BASIN\_GAS PLANT\_2023 ANNUAL REPORT\INDIAN BASIN\_GAS PLANT\_2023 ANNUAL REPORT.dwg LAYOUT: 5 SAVED: 2/22/2024 1:05 PM ACADVER: 24.2S (LMS TECH) PAGES: 27 OF 106 PLOTSTYLETABLE: BLACKGRAY.ctb PLOTTED: 2/22/2024 1:05 PM BY: MCKEOUGH, CAROL



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - INDUSTRIAL SUPPLY WELL
  - ⊙ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999

COC	MW-14	WELL ID
Benzene	0.81	
Toluene	<1 µg/L	
Ethylbenzene	<1 µg/L	
Xylenes	<3 µg/L	
TDS	1430	
Chloride	61.6	

CONCENTRATION (ug/L or mg/L)  
CONSTITUENT

**OCD Cleanup Goals/Regulatory Limits**

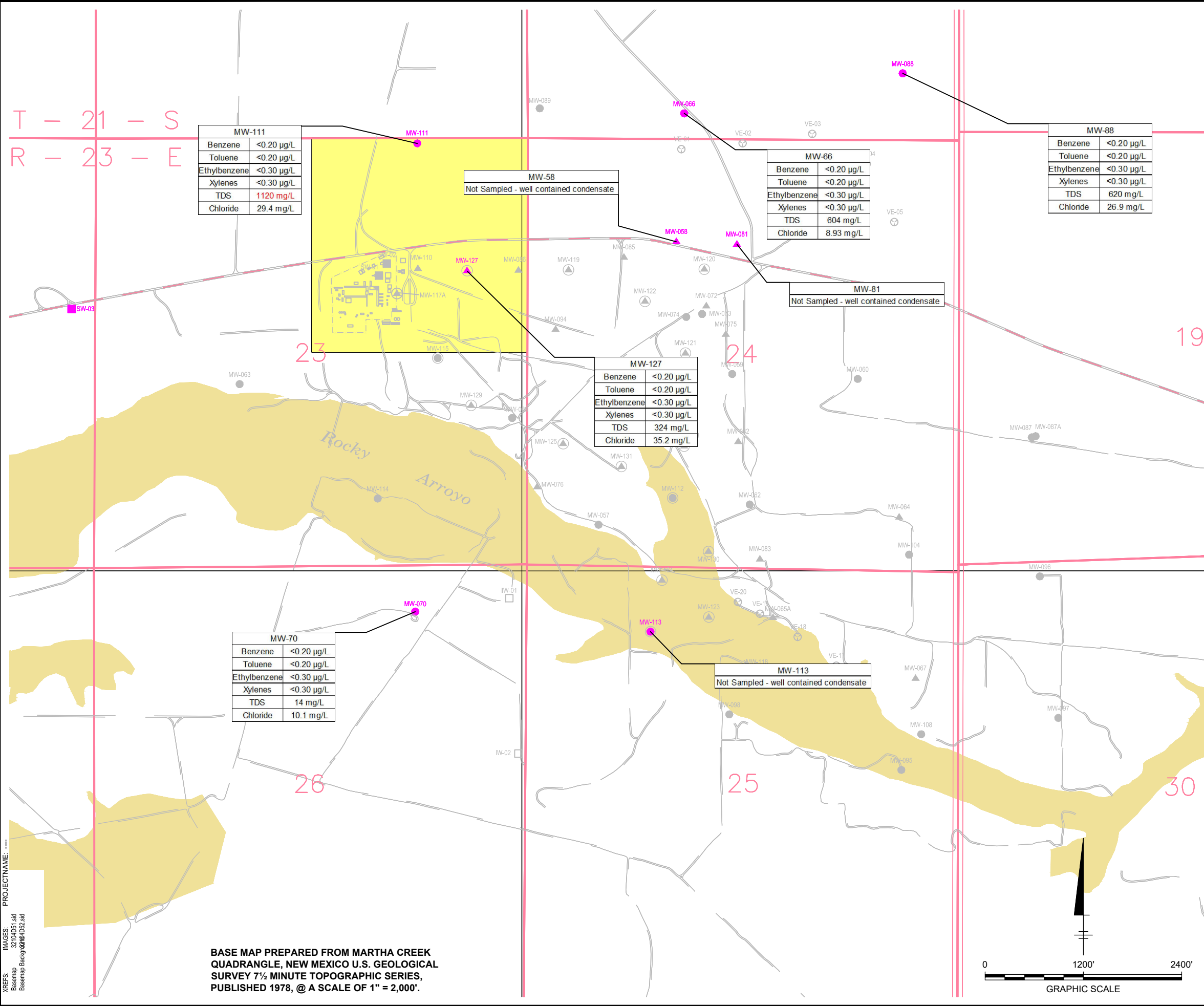
Benzene	10 µg/L
Toluene	750 µg/L
Ethylbenzene	750 µg/L
Total Xylenes	620 µg/L
Total Dissolved Solids	1,000 mg/L
Chlorides	250 mg/L

**Notes:**  
 OCD NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, OIL CONSERVATION DIVISION  
 mg/L MILLIGRAMS PER LITER  
 µg/L MICROGRAMS PER LITER  
**RED** CONCENTRATIONS IN RED EXCEED THE OCD REGULATORY LIMITS

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO <b>INDIAN BASIN GAS PLANT                  2023 ANNUAL REPORT</b>	
<b>SHALLOW ZONE BTEX,                  CHLORIDE, AND TDS                  JUNE 2023</b>	
	FIGURE <b>5</b>

CITY: Milwaukee, WI GROUP: ENV DE: C. McKeough LD: PIC: M. Sanford PM: H. McConnell TM: A. Sides TR: LYRONK=OFF=REF\* UN: 31-009-00471  
 C:\Users\schilling\OneDrive\Aradisa\US-OXY USA-INDIAN BASIN\EDDY COUNTY New Mexico\Project Files\202304\In Progress\01-DWG\6-LOWER QUEEN ANALYTICAL\TICAL 0622.dwg LAYOUT: 6 SAVED: 7/20/2023 9:13 AM ACADVER: 24.2S (LMS TECH) PAGES: 24.2S (LMS TECH) PLOTSTYLETABLE: BLACKGRAY.CTB PLOTTED: 7/20/2023 9:13 AM BY: SCHILLING, ADAM  
 PROJECTNAME: OXY USA WTP LIMITED PARTNERSHIP EDDY COUNTY, NEW MEXICO INDIAN BASIN GAS PLANT 2023 ANNUAL REPORT LOWER QUEEN BTEX, CHLORIDE, AND TDS JUNE 2023  
 IMAGES: 32104b51.sld  
 Basemap: Basegray.ctb



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - ▲ PLUGGED RECOVERY WELL
  - PLUGGED INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE II INFILL WELL INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE I INFILL WELL INSTALLED DURING JULY, 1999
  - PLUGGED INFILTRATION WELL
  - ⊕ PLUGGED VAPOR EXTRACTION WELL

**WELL ID**

	MW-66
Benzene	<1 µg/L
Toluene	<1 µg/L
Ethylbenzene	<1 µg/L
Xylenes	<3 µg/L
TDS	793
Chloride	7.6

**CONCENTRATION (µg/L or mg/L)**

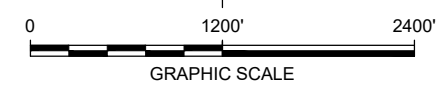
**CONSTITUENT**

**OCD Cleanup Goals/Regulatory Limits**

Benzene	10 µg/L
Toluene	750 µg/L
Ethylbenzene	750 µg/L
Total Xylenes	620 µg/L
Total Dissolved Solids	1,000 mg/L
Chlorides	250 mg/L

**Notes:**  
 OCD NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT, OIL CONSERVATION DIVISION  
 mg/L MILLIGRAMS PER LITER  
 µg/L MICROGRAMS PER LITER  
**RED** CONCENTRATIONS IN RED EXCEEDED THE OCD REGULATORY LIMITS

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.



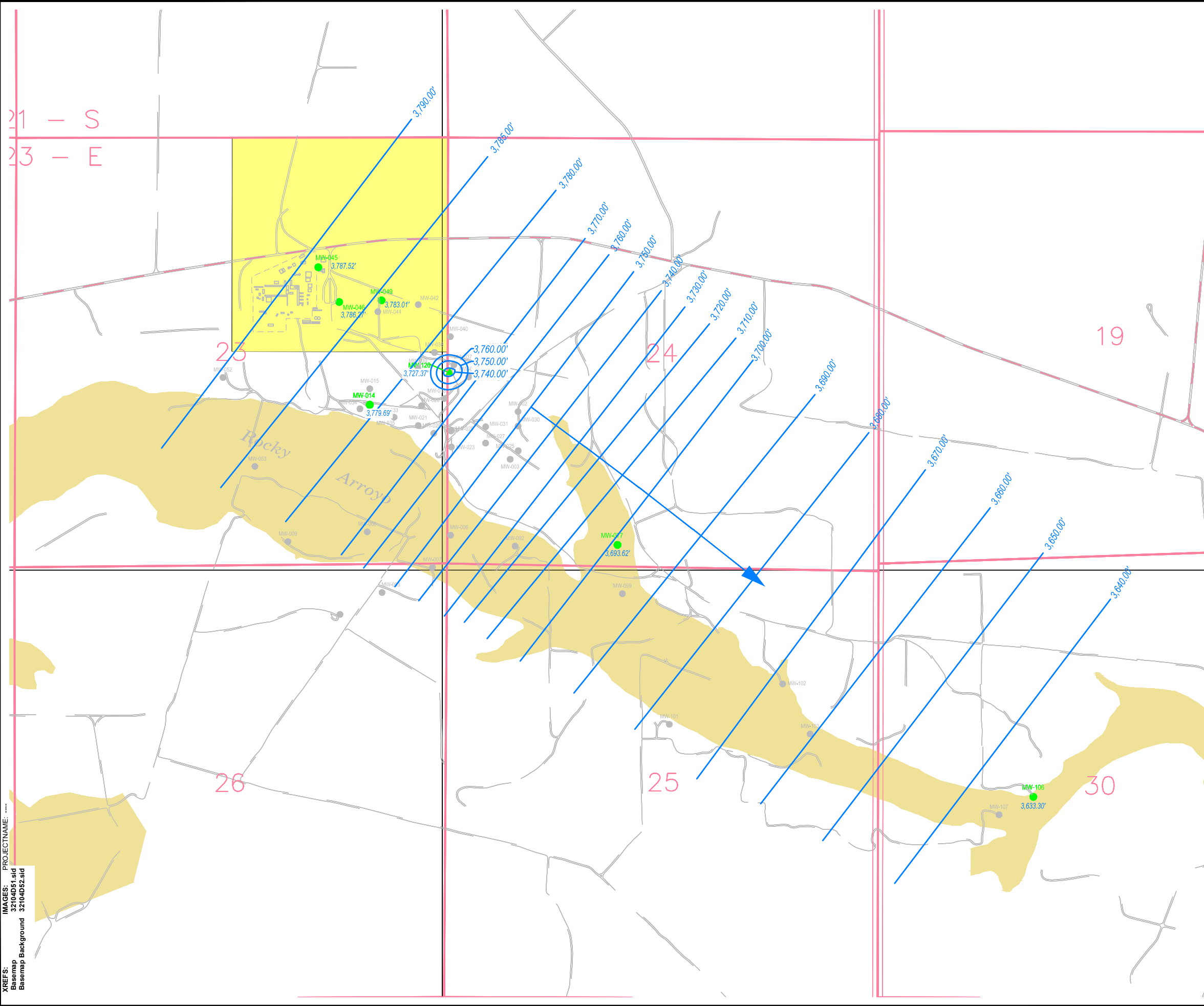
OXY USA WTP LIMITED PARTNERSHIP  
 EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT  
 2023 ANNUAL REPORT**

**LOWER QUEEN BTEX,  
 CHLORIDE, AND TDS  
 JUNE 2023**

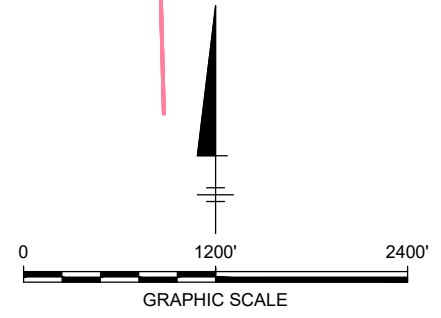
**ARCADIS** Design & Consultancy  
 for natural and built assets

FIGURE  
**6**

C:\Users\mcleugh\OneDrive\Arcadis\US\OXY USA\INDIAN BASIN\EDDY COUNTY, New Mexico\Project Files\2023\01-In Progress\01-DWG\7-SHALLOW GW CONTOURS 1123.dwg LAYOUT: 7 SAVED: 12/19/2023 10:35 AM ACADVER: 24.2S (LMS TECH) PAGES: 24.2S (LMS TECH) PLOTSTYLETABLE: BLACKGRAY.ctb PLOTTED: 12/13/2023 10:37 AM BY: MCKEOUGH, CAROL



T - 21 - S  
R - 24 - E



**LEGEND**

- MONITORING WELL
- PLUGGED MONITORING WELL
- ▲ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
- 3,633.30' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- DRY INDICATES WELL WAS DRY AT TIME OF GAUGING
- 3,780.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 10 FEET
- ← GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

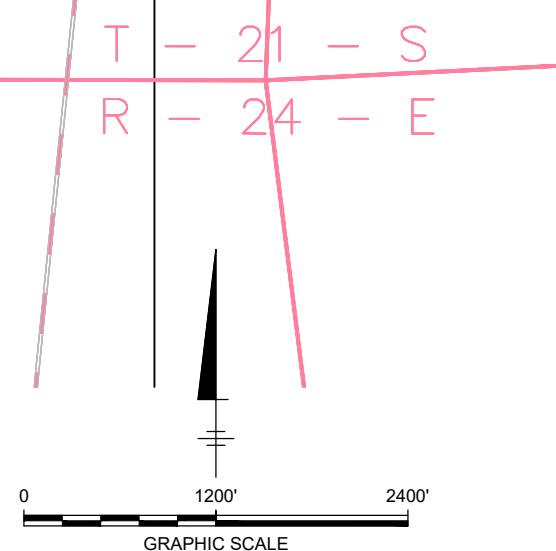
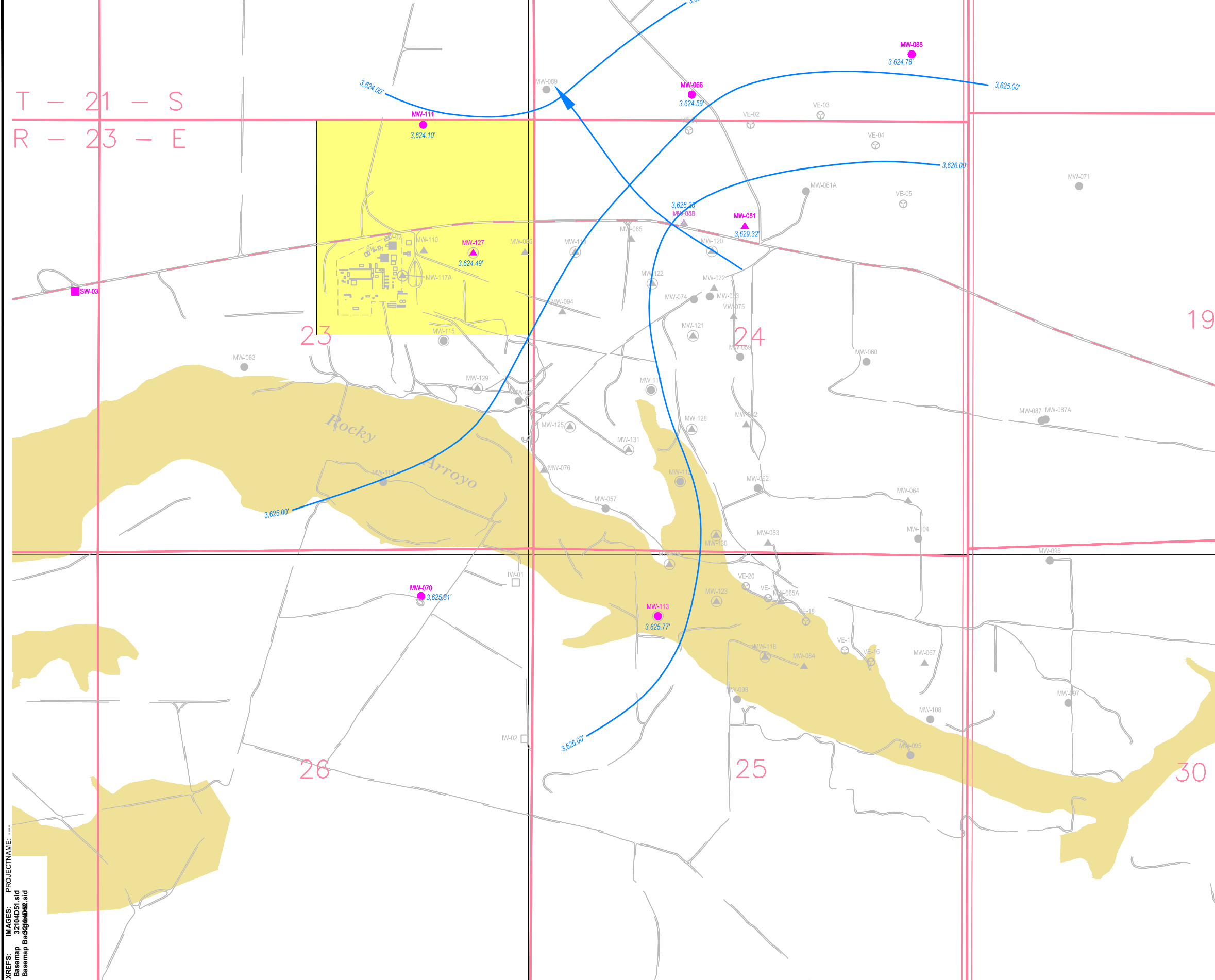
OXY USA WTP LIMITED PARTNERSHIP  
 EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT**  
**2023 ANNUAL REPORT**

**SHALLOW ZONE GROUNDWATER  
 ELEVATION CONTOURS  
 NOVEMBER 2023**



FIGURE  
**7**

C:\Users\mcleugh\OneDrive\Arcadis\US\OXY USA\INDIAN BASIN\EDDY COUNTY\New Mexico\Project Files\2023\01-In Progress\01-DWG\8-LOWER QUEEN GW CONTOURS 1123.dwg LAYOUT: 8 SAVED: 12/19/2023 12:42 PM ACADVER: 24.2S (LMS TECH) PAGES: 1 PLOTSTYLETABLE: BLACKGRAY.ctb PLOTTED: 12/19/2023 12:43 PM BY: MCKEOUGH, CAROL



- LEGEND**
- MONITORING WELL
  - PLUGGED MONITORING WELL
  - ▲ RECOVERY WELL
  - ▲ PLUGGED RECOVERY WELL
  - PLUGGED INDUSTRIAL SUPPLY WELL
  - ⊕ PHASE II INFILL WELLS INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE II INFILL WELL INSTALLED DURING AUGUST, 1999
  - ⊕ PLUGGED PHASE I INFILL WELL INSTALLED DURING JULY, 1999
  - PLUGGED INFILTRATION WELL
  - ⊕ PLUGGED VAPOR EXTRACTION WELL
  - 3,625.77' GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 3,624.00' GROUNDWATER ELEVATION CONTOUR LINE, CONTOUR INTERVAL = 2 FEET
  - ➔ GROUNDWATER FLOW DIRECTION

BASE MAP PREPARED FROM MARTHA CREEK QUADRANGLE, NEW MEXICO U.S. GEOLOGICAL SURVEY 7½ MINUTE TOPOGRAPHIC SERIES, PUBLISHED 1978, @ A SCALE OF 1" = 2,000'.

OXY USA WTP LIMITED PARTNERSHIP  
 EDDY COUNTY, NEW MEXICO  
**INDIAN BASIN GAS PLANT**  
**2023 ANNUAL REPORT**

**LOWER QUEEN GROUNDWATER ELEVATION CONTOURS**  
**NOVEMBER 2023**

**ARCADIS** Design & Consultancy for natural built assets

FIGURE  
**8**

# APPENDIX A

## Historic Groundwater Elevations



**Appendix B**

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
<b>MW-14</b>	<b>09/01/91</b>	<b>5100</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-14	06/22/98	820	<10	840	<10
MW-14	04/18/02	116	9	<5	<5
MW-14	10/16/02	23	<5	5	<5
MW-14	04/09/03	<5	<5	<5	<5
MW-14	10/24/03	330	<5	<5	<5
MW-14		Not Sampled - Condensate Present			
MW-14	04/25/05	174	<5	<5	<15
MW-14	04/27/06	31.9	<2.74	<2.03	<5.81
MW-14	04/20/07	30	<5	<5	<15
MW-14	05/27/09	1.1	<1	1.1	17
MW-14	06/23/10	1.1	<1	2.9	19.4
MW-14	06/30/11	Not Sampled - not enough water to collect sample			
MW-14	06/28/12	Not Sampled - not enough water to collect sample			
MW-14	06/28/13	Not Sampled - not enough water to collect sample			
MW-14	06/26/14	2.6	<1	<1	<3
MW-14	04/30/15	2.6	<1	<1	<3
MW-14	05/25/16	<1	<1	<1	<3
MW-14	07/12/17	<1	<1	<1	<3
MW-14	06/13/18	Not Sampled - not enough water to collect sample			
MW-14	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-14	06/10/20	<0.56	1.58	<1.29	<1.98
MW-14	06/22/21	Not Sampled - not enough water to collect sample			
MW-14	06/23/22	Not Sampled - not enough water to collect sample			
MW-14	06/22/23	Not Sampled - not enough water to collect sample			
<b>MW-45</b>	<b>06/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-45	06/22/91	--	<1	<1	<1
MW-45	09/01/91	<1	--	--	--
MW-45	12/01/91	<1	<1	<1	<1
MW-45	07/15/93	<3	6	7	4
MW-45	10/14/93	<3	3	<3	3
MW-45	01/13/94	<0.5	<0.5	<0.5	<0.5
MW-45	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-45	07/20/94	<0.5	<0.5	<0.5	<0.5
MW-45	05/29/09	<1	<1	<1	1.7
MW-45	06/23/10	<1	<1	<1	<1
MW-45	07/01/11	<1	<1	<1	<3
MW-45	06/28/12	28.7	<1	0.57	<3
MW-45	06/28/13	Not Sampled - not enough water to collect sample			
MW-45	06/26/14	<1	<1	<1	<3
MW-45	04/30/15	<1	<1	<1	<3
MW-45	05/25/16	<1	<1	<1	<3
MW-45	07/13/17	<1	<1	<1	<3
MW-45	06/13/18	<1	<1	<1	<1
MW-45	06/24/19	<0.56	<0.55	<1.29	<1.98
MW-45	06/10/20	<0.56	0.934	<1.29	<1.98
MW-45	06/22/21	<2.0	<2.0	<2.0	<4.0
MW-45	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-45	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-46</b>	<b>06/01/91</b>	<b>3200</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-46	06/22/91	--	<50	900	<50

Notes:

- Concentrations listed in micrograms per liter (ug/L)
- <5 Constituent not detected above noted laboratory detection limit
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## Appendix B

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Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-46	07/01/91	300	--	--	--
MW-46	07/19/91	--	<50	250	--
MW-46	07/30/91	--	--	--	250
MW-46	09/01/91	140	--	--	--
MW-46	10/01/96	900	33	440	59
MW-46	02/11/97	3300	550	1000	1400
MW-46	05/29/97	5000	1200	230	<100
MW-46	07/18/97	6100	1900	270	130
MW-46	04/30/98	1600	41	140	290
MW-46	07/01/98	1700	<5	97	120
MW-46	04/20/99	210	<5	11	20
MW-46	12/08/99	50	43	34	129
MW-46	04/28/00	17	<1	<1	<1
MW-46	10/02/00	12	39	19	128
MW-46	04/19/01	<5	<5	<5	<10
MW-46	10/31/01	<100	<100	<100	<200
MW-46	04/17/02	<5	<5	<5	<5
MW-46	10/16/02	14	<5	<5	<5
MW-46	04/09/03	<5	<5	<5	<5
MW-46		Not Sampled - Dry			
MW-46	04/08/04	10	<5	<5	<5
MW-46	04/27/05	<5	<5	<5	<15
MW-46		Not Sampled - Dry			
MW-46	04/23/07	81.4	<5	<5	<15
MW-46	05/27/09	<1	<1	<1	1.1
MW-46	06/23/10	<1	<1	<1	<1
MW-46	06/30/11	Not Sampled - not enough water to collect sample			
MW-46	06/28/12	Not Sampled - not enough water to collect sample			
MW-46	06/28/13	Not Sampled - not enough water to collect sample			
MW-46	06/26/14	220	<1	32.9	68.2
MW-46	04/30/15	Not Sampled - not enough water to collect sample			
MW-46	07/13/17	Not Sampled - not enough water to collect sample			
MW-46	06/13/18	Not Sampled - not enough water to collect sample			
MW-46	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-46	06/10/20	<0.56	1.18	<1.29	<1.98
MW-46	06/22/21	Not Sampled - not enough water to collect sample			
MW-46	06/23/22	Not Sampled - not enough water to collect sample			
MW-46	06/22/23	Not Sampled - not enough water to collect sample			
<b>MW-49</b>	<b>06/01/91</b>	<b>60</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-49	06/22/91	--	<10	60	40
MW-49	09/01/91	35	--	--	--
MW-49	07/15/93	210	27	42	30
MW-49	10/14/93	68	26	9	20
MW-49	01/13/94	13	<5	15	110
MW-49	04/06/94	82	<0.5	11	10
MW-49	07/20/94	150	<5	32	27
MW-49	10/05/94	78	49	40	300
MW-49	01/11/95	220	<5	46	97
MW-49	04/06/95	120	<0.5	24	26
MW-49	07/21/95	17	<0.5	3.5	3.4
MW-49	10/12/95	240	<50	59	130
MW-49	01/20/96	160	130	120	570

## Notes:

Concentrations listed in micrograms per liter (ug/L)

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## Appendix B

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Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-49	04/19/96	87	23	18	32
MW-49	07/01/96	370	220	190	630
MW-49	10/01/96	95	16	36	12
MW-49	02/07/97	79	66	45	160
MW-49	07/18/97	130	<1	35	9.8
MW-49	04/30/98	130	39	41	69
MW-49	07/01/98	78	<1	15	<1
MW-49	04/20/99	81	<5	32	<10
MW-49	12/08/99	32	68	58	380
MW-49	04/27/00	24	<1	12	<1
MW-49	10/02/00	35	38	18	107
MW-49	04/17/01	21	36	16	117
MW-49	10/31/01	21	<5	<5	<10
MW-49	04/17/02	19	<5	<5	<5
MW-49	10/16/02	31	<5	<5	<5
MW-49	04/08/03	71	<5	<5	<5
MW-49	10/28/03	97	<5	<5	<5
MW-49	04/08/04	76	<5	<5	<5
MW-49	04/25/05	<5	<5	<5	<15
MW-49	04/26/06	23	<2.74	<2.03	<5.81
MW-49	04/20/07	26	<5	<5	<15
MW-49	05/28/09	37	<1	<1	1.2
MW-49	06/23/10	24	<1	<1	<1
MW-49	07/01/11	48	<1	<1	<3
MW-49	06/28/12	<1	<1	<1	<3
MW-49	06/28/13	34.1	<1	<1	<3
MW-49	06/26/14	44.1	<1	<1	<3
MW-49	04/30/15	1.3	<1	<1	<3
MW-49	05/25/16	13.4	<1	<1	<3
MW-49	07/12/17	13.6	<1	0.38 J	<3
MW-49	06/13/18	20.8	<1	<1	<1
MW-49	06/24/19	11.5	<0.55	<1.29	<1.98
MW-49	06/10/20	15.4	1.02	<1.29	<1.98
MW-49	06/22/21	<20	<20	<20	<40
MW-49	06/23/22	4.1	<0.20	<0.30	0.66 J
MW-49	06/22/23	0.6	<0.20	<0.30	<0.30
<b>MW-58</b>	<b>09/01/91</b>	<b>40</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-58	12/01/91	90	40	20	80
MW-58	04/01/92	203	32	56	68
MW-58	07/01/92	178	58	32	44
MW-58	10/01/92	190	49	26	57
MW-58	01/01/93	192	30	23	39
MW-58	04/13/93	55	16	31	9
MW-58	07/13/93	25	42	14	13
MW-58	10/13/93	50	21	212	555
MW-58	04/05/94	<2.5	<2.5	7.4	27
MW-58	07/19/94	2	29	4.5	27
MW-58	10/06/94	6.7	<5	15	39
MW-58	04/08/95	2.2	<0.5	2.1	6.8
MW-58	10/01/96	110	320	940	10000
MW-58	01/30/98	350	23	42	96
MW-58	06/22/98	22	<1	28	35

## Notes:

Concentrations listed in micrograms per liter (ug/L)

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**Appendix B**

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-58	06/28/13	Not Sampled - Condensate Present			
MW-58	06/28/14	Not Sampled - Condensate Present			
MW-58	04/30/15	Not Sampled - Condensate Present			
MW-58	07/13/17	Not Sampled - Condensate Present			
MW-58	06/13/18	Not Sampled - Condensate Present			
MW-58	06/25/19	Not Sampled - Condensate Present			
MW-58	06/10/20	Not Sampled - Condensate Present			
MW-58	06/22/21	Not Sampled - Condensate Present			
MW-58	06/23/22	Not Sampled - Condensate Present			
MW-58	06/22/23	Not Sampled - Condensate Present			
<b>MW-66</b>	<b>09/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-66	12/01/91	<1	<1	<1	<1
MW-66	04/01/92	4	7	<3	4
MW-66	07/01/92	8	25	7	11
MW-66	10/01/92	12	36	<3	34
MW-66	01/01/93	3	6	3	20
MW-66	04/13/93	<3	5	5	<3
MW-66	07/13/93	8	4	<3	<3
MW-66	10/12/93	13	60	4	29
MW-66	11/10/93	<4	<4	<4	<4
MW-66	01/11/94	<0.5	<0.5	<0.5	0.6
MW-66	04/07/94	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/94	<0.5	0.6	<0.5	0.8
MW-66	10/04/94	<0.5	3	1.5	17
MW-66	01/09/95	<0.5	<0.5	<0.5	<0.5
MW-66	04/11/95	<0.5	<0.5	<0.5	<0.5
MW-66	07/19/95	<0.5	0.9	<0.5	<0.5
MW-66	10/10/95	<0.5	<0.5	<0.5	3.5
MW-66	01/19/96	<0.5	<0.5	<0.5	<0.5
MW-66	04/17/96	<0.5	0.8	<0.5	1
MW-66	07/01/96	<0.5	<0.5	<0.5	0.5
MW-66	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-66	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-66	05/06/97	<0.5	<0.5	<0.5	<0.5
MW-66	07/16/97	<0.5	<0.5	<0.5	<0.5
MW-66	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-66	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-66	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-66	06/17/98	<1	1.6	<1	<1
MW-66	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-66	02/01/99	<0.5	<0.5	<0.5	<0.5
MW-66	04/21/99	<5	<5	<5	<10
MW-66	12/10/99	<5	<5	<5	<10
MW-66	04/27/00	<1	<1	<1	<1
MW-66	10/05/00	<5	<5	<5	<10
MW-66	04/18/01	<5	<5	<5	<15
MW-66	11/01/01	<5	<5	<5	<10
MW-66	04/19/02	<5	<5	<5	<5
MW-66	10/16/02	<5	<5	<5	<5
MW-66	04/08/03	<5	<5	<5	<5
MW-66	10/22/03	<5	<5	<5	<5
MW-66	04/06/04	<5	<5	<5	<5

Notes:

Concentrations listed in micrograms per liter (ug/L)

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**Appendix B**

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-66	04/21/05	<5	<5	<5	<15
MW-66	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-66	04/18/07	<5	<5	<5	<15
MW-66	05/27/09	<1	<1	<1	<1
MW-66	06/22/10	<1	<1	<1	<1
MW-66	06/30/11	<1	<1	<1	<3
MW-66	06/28/12	<1	<1	<1	<3
MW-66	06/28/13	<1	17.9	<1	<3
MW-66	06/27/14	<1	<1	<1	<3
MW-66	04/29/15	<1	<1	<1	<3
MW-66	05/24/16	<1	<1	<1	<3
MW-66	07/13/17	<1	<1	<1	<3
DUP-1	07/13/17	<1	<1	<1	<3
MW-66	06/12/18	<1	0.38 J	<1	<1
MW-66	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-66	06/09/20	<0.56	<0.55	<1.29	<1.98
MW-66	06/22/21	<2.0	<2.0	<2.0	<4.0
MW-66	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-66	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-70</b>	<b>09/01/91</b>	<b>&lt;1</b>	<b>--</b>	<b>--</b>	<b>--</b>
MW-70	12/01/91	<1	<1	<1	<1
MW-70	04/01/92	3	17	<3	8
MW-70	07/01/92	<1	3	1	13
MW-70	10/01/92	11	40	63	60
MW-70	01/01/93	<3	<3	8	5
MW-70	04/14/93	9	20	<3	4
MW-70	07/13/93	<1	11	3	<3
MW-70	10/12/93	25	19	19	18
MW-70	11/10/93	<4	<4	<4	40
MW-70	01/11/94	<0.5	0.6	<0.5	<0.5
MW-70	04/06/94	<0.5	<0.5	<0.5	<0.5
MW-70	07/18/94	<0.5	<0.5	<0.5	<0.5
MW-70	10/04/94	1.2	4.3	1.3	12
MW-70	01/09/95	<0.5	2.3	<0.5	2.4
MW-70	04/05/95	<0.5	<0.5	<0.5	1.1
MW-70	07/18/95	<0.5	0.8	<0.5	<0.5
MW-70	10/10/95	<0.5	<0.5	<0.5	<0.5
MW-70	01/18/96	<0.5	<0.5	<0.5	<0.5
MW-70	04/17/96	<0.5	<0.5	<0.5	<0.5
MW-70	07/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-70	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-70	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-70	06/16/98	<1	<1	<1	<1
MW-70	04/22/99	<5	<5	<5	<10
MW-70	04/28/00	<1	<1	<1	<1
MW-70	10/03/00	<5	<5	<5	<10
MW-70	04/24/01	<5	<5	<5	<15
MW-70	04/18/02	<5	<5	<5	<5
MW-70	04/06/03	<5	<5	<5	<5
MW-70	04/12/04	<5	<5	<5	<5
MW-70	04/26/05	<5	<5	<5	<15

Notes:

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**Appendix B**  
 Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-70	04/20/06	<2.57	<2.74	<2.03	<5.81
MW-70	04/24/07	<5	<5	<5	<15
MW-70	05/27/09	<1	<1	<1	<1
MW-70	06/23/10	<1	<1	<1	<1
MW-70	06/30/11	<1	<1	<1	<3
MW-70	06/28/12	<1	<1	<1	<3
MW-70	06/28/13	<1	1.5	<1	<3
MW-70	06/27/14	NS - Well not accessible due to flooding			
MW-70	04/29/15	<1	<1	<1	<3
MW-70	05/24/16	<1	<1	<1	<3
MW-70	07/13/17	<1	<1	<1	<3
MW-70	06/13/18	<1	<1	<1	<1
MW-70	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-70	06/09/20	<0.56	0.837	<1.29	<1.98
MW-70	06/22/21	7.1	5.7	<2	<4
MW-70	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-70	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-77</b>	<b>07/21/95</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>1.9</b>	<b>2.8</b>
MW-77	01/20/96	<0.5	3.1	<0.5	7.1
MW-77	04/19/96	<0.5	3.8	0.8	2.5
MW-77	07/01/96	8	14	19	35
MW-77	10/01/96	160	320	150	1000
MW-77	05/07/97	8.4	70	8.3	52
MW-77	07/18/97	14	30	11	71
MW-77	12/09/99	<5	<5	<5	<10
MW-77	10/03/00	<5	<5	<5	24
MW-77		Not Sampled - Condensate Present			
MW-77		Not Sampled - Dry			
MW-77	10/21/02	<5	<5	<5	<5
MW-77	04/10/03	<5	<5	<5	<5
MW-77	10/24/03	<5	<5	<5	<5
MW-77	04/07/04	<5	<5	<5	<5
MW-77	04/27/05	<5	<5	<5	<15
MW-77	04/26/06	<2.57	<2.74	<2.03	<5.81
MW-77	04/18/07	<5	<5	<5	<15
MW-77	06/23/10	<1	<1	<1	<1
MW-77	06/30/11	<1	<1	<1	<3
MW-77	06/28/12	Not Sampled - not enough water to collect sample			
MW-77	06/28/13	Not Sampled - not enough water to collect sample			
MW-77	06/26/14	<1	<1	<1	<3
MW-77	04/30/15	Not Sampled - not enough water to collect sample			
MW-77	07/13/17	Not Sampled - not enough water to collect sample			
MW-77	06/13/18	Not Sampled - not enough water to collect sample			
MW-77	06/25/19	Not Sampled - not enough water to collect sample			
MW-77	06/10/20	Not Sampled - not enough water to collect sample			
MW-77	06/22/21	Not Sampled - not enough water to collect sample			
MW-77	06/23/22	Not Sampled - not enough water to collect sample			
MW-77	06/22/23	Not Sampled - not enough water to collect sample			
<b>MW-81</b>	<b>06/29/98</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>1.5</b>
MW-81	06/26/14	Not Sampled - Condensate Present			
MW-81	04/30/15	Not Sampled - Condensate Present			

Notes:

Concentrations listed in micrograms per liter (ug/L)

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**Appendix B**

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-81	05/24/16	Not Sampled - Condensate Present			
MW-81	07/13/17	Not Sampled - Condensate Present			
MW-81	06/13/18	Not Sampled - Condensate Present			
MW-81	06/25/19	Not Sampled - Condensate Present			
MW-81	06/10/20	Not Sampled - Condensate Present			
MW-81	06/22/21	Not Sampled - Condensate Present			
MW-81	06/23/22	Not Sampled - Condensate Present			
MW-81	06/22/23	Not Sampled - Condensate Present			
<b>MW-88</b>	<b>08/01/96</b>	<b>&lt;0.5</b>	<b>1.1</b>	<b>0.5</b>	<b>1</b>
MW-88	10/01/96	<0.5	<0.5	<0.5	<0.5
MW-88	02/05/97	<0.5	<0.5	<0.5	<0.5
MW-88	04/30/97	<0.5	<0.5	<0.5	<0.5
MW-88	10/15/97	<0.5	<0.5	<0.5	<0.5
MW-88	01/29/98	<0.5	<0.5	<0.5	<0.5
MW-88	04/28/98	<0.5	<0.5	<0.5	<0.5
MW-88	06/27/98	<1	<1	<1	<1
MW-88	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-88	02/01/99	1.6	1.8	1.6	4.8
MW-88	04/21/99	<5	<5	<5	<10
MW-88	12/10/99	<5	<5	<5	<10
MW-88	04/28/00	<1	<1	<1	<1
MW-88	10/02/00	<5	<5	<5	<5
MW-88	04/17/01	<5	<5	<5	<15
MW-88	10/31/01	<5	<5	<5	<10
MW-88	04/19/02	<5	<5	<5	<5
MW-88	10/16/02	<5	<5	<5	<5
MW-88	04/08/03	<5	<5	<5	<5
MW-88	10/21/03	<5	<5	<5	<5
MW-88	04/06/04	<5	<5	<5	<5
MW-88	04/21/05	<5	<5	<5	<15
MW-88	04/20/06	<2.57	<2.74	<2.03	<5.81
MW-88	04/19/07	<5	<5	<5	<15
MW-88	05/27/09	<1	<1	<1	<1
MW-88	06/22/10	<1	<1	<1	<1
MW-88	06/30/11	<1	<1	<1	<3
MW-88	06/28/12	<1	<1	<1	<3
MW-88	06/28/13	<1	5.3	<1	<3
MW-88	06/26/14	<1	<1	<1	<3
MW-88	04/29/15	<1	<1	<1	<3
MW-88	05/24/16	<1	<1	<1	<3
MW-88	07/13/17	<1	<1	<1	<3
MW-88	06/13/18	<1	<1	<1	<1
MW-88	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-88	06/09/20	<0.56	0.704	<1.29	<1.98
MW-88	06/22/21	<40	<40	<40	<80
MW-88	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-88	06/22/23	<0.20	<0.20	<0.30	<0.30
MW-88 (DUP-1)	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-106</b>	<b>02/11/97</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
MW-106	05/07/97	<0.5	<0.5	<0.5	<0.5
MW-106	07/18/97	<0.5	<0.5	<0.5	<0.5

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

## Appendix B

Page 8 of 16

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-106	04/30/98	<0.5	<0.5	<0.5	<0.5
MW-106	06/28/98	<1	<1	<1	<1
MW-106	04/29/99	<5	<5	<5	<10
MW-106	12/08/99	<5	<5	<5	<10
MW-106	05/01/00	<1	<1	<1	<1
MW-106	10/02/00	<5	<5	<5	<10
MW-106	04/18/01	<5	9.4	<5	<15
MW-106	10/31/01	<5	<5	<5	<10
MW-106	04/17/02	<5	<5	<5	<5
MW-106	10/16/02	<5	7	<5	<5
MW-106	04/09/03	<5	<5	<5	<5
MW-106	10/21/03	<5	<5	<5	<5
MW-106	04/05/04	<5	<5	<5	<5
MW-106	04/20/05	<5	<5	<5	<15
MW-106	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-106	04/18/07	<5	<5	<5	<15
MW-106	06/23/10	<1	<1	<1	<1
MW-106	06/30/11	<1	<1	<1	<3
MW-106	06/28/12	<1	<1	<1	<3
MW-106	06/28/13	<1	1.8	<1	<3
MW-106	06/26/14	<1	<1	<1	<3
MW-106	04/30/15	<1	<1	<1	<3
MW-106	05/23/16	<1	<1	<1	<3
MW-106	07/13/17	<1	<1	<1	<3
MW-106	06/13/18	<1	<1	<1	<1
MW-106	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-106	06/09/20	<0.56	0.813	<1.29	<1.98
MW-106	06/22/21	<2.0	<2.0	<2.0	<4.0
MW-106	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-106	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-111</b>	<b>06/29/98</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
MW-111	10/11/98	<0.5	<0.5	<0.5	<0.5
MW-111	02/01/99	<0.5	0.8	<0.5	<0.5
MW-111	04/21/99	<5	<5	<5	<10
MW-111	12/13/99	<5	<5	<5	<10
MW-111	04/27/00	<1	<1	<1	<1
MW-111	10/05/00	<5	<5	<5	<10
MW-111	04/18/01	<5	<5	<5	<15
MW-111	11/02/01	<5	<5	<5	<10
MW-111	04/19/02	<5	<5	<5	<5
MW-111	10/16/02	<5	<5	<5	<5
MW-111	04/07/03	<5	<5	<5	6
MW-111	10/22/03	<5	<5	<5	<5
MW-111	04/07/04	<5	<5	<5	5
MW-111	04/21/05	<5	<5	<5	<15
MW-111	04/19/06	<2.57	<2.74	<2.03	<5.81
MW-111	04/18/07	<5	<5	<5	<15
MW-111	05/27/09	<1	<1	<1	<1
MW-111	06/22/10	<1	<1	<1	<1
MW-111	06/30/11	<1	<1	<1	<3
MW-111	06/28/12	<1	<1	<1	<3
MW-111	06/28/13	<1	3.9	<1	<3

## Notes:

Concentrations listed in micrograms per liter (ug/L)

&lt;5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

**Appendix B**

Historical BTEX Analytical Data, May 1991 - June 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Sample Date	Analytical Results (µg/L)			
		Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-111	06/27/14	<1	<1	<1	<3
MW-111	04/30/15	<1	<1	<1	<3
MW-111	05/24/16	<1	<1	<1	<3
MW-111	07/13/17	<1	<1	<1	<3
MW-111	06/13/18	<1	<1	<1	<1
MW-111	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-111	06/09/20	<0.56	<0.55	<1.29	<1.98
MW-111	06/22/21	<40	<40	<40	<80
MW-111	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-111	06/22/23	<0.20	<0.20	<0.30	<0.30
<b>MW-113</b>	<b>08/11/99</b>	<b>140</b>	<b>&lt;5</b>	<b>59</b>	<b>390</b>
MW-113	06/27/14		NS - Condensate Present		
MW-113	04/30/15		NS - Condensate Present		
MW-113	07/13/17		NS - Condensate Present		
MW-113	06/13/18		NS - Condensate Present		
MW-113	06/25/19		NS - Condensate Present		
MW-113	06/10/20		NS - Condensate Present		
MW-113	06/22/21		NS - Condensate Present		
MW-113	06/23/22		NS - Condensate Present		
MW-113	06/22/23		Not Sampled - not enough water to collect sample		
<b>MW-127</b>	<b>12/28/99</b>	<b>190</b>	<b>7.1</b>	<b>38</b>	<b>16</b>
MW-127	05/28/09	<1	<1	<1	1.4
MW-127	06/23/10	<1	<1	<1	2.2
MW-127	07/01/11	<1	<1	<1	<3
MW-127	06/28/12	<1	<1	<1	<3
MW-127	06/28/13	<1	2.8	0.48 J	<3
MW-127	06/26/14	<1	<1	<1	<3
MW-127	04/30/15	<1	<1	<1	<3
MW-127	05/24/16	<1	<1	<1	<3
MW-127	07/13/17	<1	<1	<1	<3
MW-127	06/14/18	<1	<1	<1	<1
MW-127	06/25/19	<0.56	<0.55	<1.29	<1.98
MW-127	06/10/20	<0.56	0.927	<1.29	<1.98
MW-127 (DUP-1)	06/10/20	<0.56	0.569	<1.29	<1.98
MW-127	06/22/21	<20	<20	<20	<40
MW-127	06/23/22	<0.20	<0.20	<0.30	<0.30
MW-127	06/22/23	<0.20	<0.20	<0.30	<0.30

Notes:

Concentrations listed in micrograms per liter (ug/L)

<5 Constituent not detected above noted laboratory detection limit

-- Indicates parameter was not analyzed

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
<b>Shallow Zone Wells</b>					
<b>MW-14</b>	<b>12/1/1991</b>	<b>3803.61</b>	<b>9.68</b>	<b>0</b>	<b>3793.93</b>
MW-14	10/1/1993	3803.61	22.55	0	3781.06
MW-14	1/1/1994	3803.61	22.78	0	3780.83
MW-14	1/27/1998	3803.61	22.36	0	3781.25
MW-14	6/16/1998	3803.61	22.88	0	3780.73
MW-14	4/19/1999	3803.61	23.74	0.24	3780.05
MW-14	1/5/2000	3803.61	22.22	0	3781.39
MW-14	4/26/2000	3803.61	22.74	0.03	3780.89
MW-14	9/27/2000	3803.61	23.40	0.09	3780.28
MW-14	4/16/2001	3803.61	22.15	0.01	3781.47
MW-14	10/29/2001	3803.61	21.98	0.08	3781.69
MW-14	4/15/2002	3803.61	22.81	0	3780.80
MW-14	10/14/2002	3803.61	18.17	0	3785.44
MW-14	04/15/2003	3803.61	21.87	0	3781.74
MW-14	10/14/2003	3803.61	22.19	0	3781.42
MW-14	4/5/2004	3803.61	23.45	0.01	3780.17
MW-14	10/5/2004	3803.61	18.36	0	3785.25
MW-14	4/19/2005	3803.61	21.55	0	3782.06
MW-14	10/24/2005	3803.61	20.69	0	3782.92
MW-14	4/18/2006	3803.61	22.69	0	3780.92
MW-14	10/11/2006	3803.61	19.20	0	3784.41
MW-14	4/16/2007	3803.61	22.1	0	3781.51
MW-14	10/22/2007	3803.61	21.15	0	3782.46
MW-14	5/27/2009	3803.61	23.75	0	3779.86
MW-14	6/21/2010	3803.61	24.04	0	3779.57
MW-14	12/28/2010	3803.61	22.31	0	3781.30
MW-14	6/30/2011	3803.61	24.00	0	3779.61
MW-14	12/15/2011	3803.61	23.85	0	3779.76
MW-14	6/27/2012	3803.61	22.73	0	3780.88
MW-14	12/1/2012	3803.61	23.40	0	3780.21
MW-14	6/1/2013	3803.61	22.73	0	3780.88
MW-14	12/12/2013	3803.61	20.82	0	3782.79
MW-14	6/25/2014	3803.61	20.96	0	3782.65
MW-14	12/16/2014	3803.61	20.42	0	3783.19
MW-14	4/28/2015	3803.61	21.91	0	3781.70
MW-14	10/13/2015	3803.61	19.89	0	3783.72
MW-14	5/24/2016	3803.61	22.70	0	3780.91
MW-14	12/6/2016	3803.61	21.85	0	3781.76
MW-14	7/12/2017	3803.61	23.39	0	3780.22
MW-14	12/17/2017	3803.61	23.10	0	3780.51
MW-14	7/8/2018	3803.61	23.79	0	3779.82
MW-14	11/13/2018	3803.61	21.78	0	3781.83
MW-14	6/24/2019	3803.61	23.13	0	3780.48
MW-14	12/10/2019	3803.61	21.15	0	3782.46
MW-14	6/10/2020	3803.61	22.02	0	3781.59
MW-14	11/2/2020	3803.61	23.71	0	3779.90
MW-14	6/22/2021	3803.61	23.85	0	3779.76
MW-14	12/6/2021	3803.61	21.56	0	3782.05
MW-14	6/23/2022	3803.61	22.96	0	3780.65
MW-14	11/1/2022	3803.61	22.15	0	3781.46
MW-14	6/21/2023	3803.61	23.13	0	3780.48
MW-14	11/16/2023	3803.61	23.92	0	3779.69
<b>MW-45</b>	<b>12/1/1991</b>	<b>3808.68</b>	<b>13.91</b>	<b>0</b>	<b>3794.77</b>
MW-45	7/1/1993	3808.68	21.49	0	3787.19
MW-45	10/1/1993	3808.68	21.47	0	3787.21
MW-45	1/1/1994	3808.68	21.54	0	3787.14
MW-45	4/1/1994	3808.68	22.64	0	3786.04
MW-45	7/1/1994	3808.68	21.85	0	3786.83
MW-45	10/1/1994	3808.68	21.52	0	3787.16
MW-45	1/1/1995	3808.68	21.78	0	3786.90
MW-45	4/1/1995	3808.68	22.13	0	3786.55
MW-45	7/1/1995	3808.68	22.13	0	3786.55

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-45	1/5/2000	3808.68	18.88	0	3789.80
MW-45	4/26/2000	3808.68	19.19	0	3789.49
MW-45	9/27/2000	3808.68	19.19	0	3789.49
MW-45	4/16/2001	3808.68	18.39	0	3790.29
MW-45	10/29/2001	3808.68	18.53	0	3790.15
MW-45	4/15/2002	3808.68	18.75	0	3789.93
MW-45	10/14/2002	3808.68	18.39	0	3790.29
MW-45	04/15/2003	3808.68	21.36	0	3787.32
MW-45	10/14/2003	3808.68	21.35	0	3787.33
MW-45	4/5/2004	3808.68	21.69	0	3786.99
MW-45	10/5/2004	3808.68	14.09	0	3794.59
MW-45	4/19/2005	3808.68	16.94	0	3791.74
MW-45	10/24/2005	3808.68	20.09	0	3788.59
MW-45	4/18/2006	3808.68	20.72	0	3787.96
MW-45	10/11/2006	3808.68	16.40	0	3792.28
MW-45	4/16/2007	3808.68	19.98	0	3788.70
MW-45	10/22/2007	3808.68	15.95	0	3792.73
MW-45	5/27/2009	3808.68	21.56	0	3787.12
MW-45	6/21/2010	3808.68	21.52	0	3787.16
MW-45	12/28/2010	3808.68	20.05	0	3788.63
MW-45	6/30/2011	3808.68	19.47	0	3789.21
MW-45	12/15/2011	3808.68	20.20	0	3788.48
MW-45	6/27/2012	3808.68	21.47	0	3787.21
MW-45	12/1/2012	3808.68	21.22	0	3787.46
MW-45	6/1/2013	3808.68	21.47	0	3787.21
MW-45	12/12/2013	3808.68	18.77	0	3789.91
MW-45	6/25/2014	3808.68	16.12	0	3792.56
MW-45	12/16/2014	3808.68	16.95	0	3791.73
MW-45	4/28/2015	3808.68	19.90	0	3788.78
MW-45	10/13/2015	3808.68	19.79	0	3788.89
MW-45	5/24/2016	3808.68	22.14	0	3786.54
MW-45	12/6/2016	3808.68	21.06	0	3787.62
MW-45	7/12/2017	3808.68	21.45	0	3787.23
MW-45	12/17/2017	3808.68	20.11	0	3788.57
MW-45	7/8/2018	3808.68	21.54	0	3787.14
MW-45	11/13/2018	3808.68	21.00	0	3787.68
MW-45	6/24/2019	3808.68	19.20	0	3789.48
MW-45	12/10/2019	3808.68	18.95	0	3789.73
MW-45	6/10/2020	3808.68	20.06	0	3788.62
MW-45	11/2/2020	3808.68	21.53	0	3787.15
MW-45	6/22/2021	3808.68	21.68	0	3787.00
MW-45	12/6/2021	3809.68	19.22	0	3789.46
MW-45	6/23/2022	3809.68	21.57	0	3788.11
MW-45	11/1/2022	3809.68	20.05	0	3789.63
MW-45	6/21/2023	3809.68	21.36	0	3788.32
MW-45	11/16/2023	3809.68	21.16	0	3788.52
<b>MW-46</b>	<b>10/1/1993</b>	<b>3805.54</b>	<b>19.87</b>	<b>0</b>	<b>3785.67</b>
MW-46	1/1/1994	3805.54	19.42	0	3786.12
MW-46	4/1/1994	3805.54	19.59	0	3785.95
MW-46	10/1/1994	3805.54	19.20	0	3786.34
MW-46	4/1/1995	3805.54	19.55	0	3785.99
MW-46	7/1/1995	3805.54	19.55	0	3785.99
MW-46	1/16/1996	3805.54	19.48	0	3786.06
MW-46	4/19/1996	3805.54	19.52	0	3786.02
MW-46	7/15/1996	3805.54	19.41	0	3786.13
MW-46	10/13/1996	3805.54	15.73	0	3789.81
MW-46	2/4/1997	3805.54	18.22	0	3787.32
MW-46	4/28/1997	3805.54	16.93	0	3788.61
MW-46	7/14/1997	3805.54	17.15	0	3788.39
MW-46	10/13/1997	3805.54	18.01	0	3787.53
MW-46	1/27/1998	3805.54	17.54	0	3788.00
MW-46	4/27/1998	3805.54	18.34	0	3787.20
MW-46	6/16/1998	3805.54	18.69	0	3786.85

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-46	10/10/1998	3805.54	17.82	0	3787.72
MW-46	1/27/1999	3805.54	16.91	0	3788.63
MW-46	4/19/1999	3805.54	17.44	0	3788.10
MW-46	1/5/2000	3805.54	16.76	0	3788.78
MW-46	4/26/2000	3805.54	17.17	0	3788.37
MW-46	9/27/2000	3805.54	17.42	0	3788.12
MW-46	4/16/2001	3805.54	16.68	0	3788.86
MW-46	10/29/2001	3805.54	16.79	0	3788.75
MW-46	4/15/2002	3805.54	17.49	0	3788.05
MW-46	10/14/2002	3805.54	17.83	0	3787.71
MW-46	04/15/2003	3805.54	19.38	0	3786.16
MW-46	10/14/2003	3805.54	19.62	0	3785.92
MW-46	4/5/2004	3805.54	19.63	0	3785.91
MW-46	10/5/2004	3805.54	13.05	0	3792.49
MW-46	4/19/2005	3805.54	16.27	0	3789.27
MW-46	10/24/2005	3805.54	19.38	0	3786.16
MW-46	4/18/2006	3805.54	19.35	0	3786.19
MW-46	10/11/2006	3805.54	15.74	0	3789.80
MW-46	4/16/2007	3805.54	19.34	0	3786.20
MW-46	10/22/2007	3805.54	15.67	0	3789.87
MW-46	5/27/2009	3805.54	19.38	0	3786.16
MW-46	6/21/2010	3805.54	19.42	0	3786.12
MW-46	12/28/2010	3805.54	18.27	0	3787.27
MW-46	6/30/2011	3805.54	19.54	0	3786.00
MW-46	12/15/2011	3805.54	18.35	0	3787.19
MW-46	6/27/2012	3805.54	19.33	0	3786.21
MW-46	12/1/2012	3805.54	19.33	0	3786.21
MW-46	6/1/2013	3805.54	19.33	0	3786.21
MW-46	12/12/2013	3805.54	16.88	0	3788.66
MW-46	6/25/2014	3805.54	15.67	0	3789.87
MW-46	12/16/2014	3805.54	16.31	0	3789.23
MW-46	4/28/2015	3805.54	18.54	0	3787.00
MW-46	10/13/2015	3805.54	17.98	0	3787.56
MW-46	5/24/2016	3805.54	19.45	0	3786.09
MW-46	12/6/2016	3805.54	19.81	0	3785.73
MW-46	7/12/2017	3805.54	19.25	0	3786.29
MW-46	12/17/2017	3805.54	18.15	0	3787.39
MW-46	7/8/2018	3805.54	19.31	0	3786.23
MW-46	11/13/2018	3805.54	18.70	0	3786.84
MW-46	6/24/2019	3805.54	18.24	0	3787.30
MW-46	12/10/2019	3805.54	17.00	0	3788.54
MW-46	6/10/2020	3805.54	18.05	0	3787.49
MW-46	11/2/2020	3805.54	19.53	0	3786.01
MW-46	6/22/2021	3805.54	19.35	0	3786.19
MW-46	12/6/2021	3805.54	17.80	0	3787.74
MW-46	6/23/2022	3805.54	19.44	0	3786.10
MW-46	11/1/2022	3805.54	17.62	0	3787.92
MW-46	6/21/2023	3805.54	19.25	0	3786.29
MW-46	11/16/2023	3805.54	19.27	0	3786.27
<b>MW-49</b>	<b>12/1/1991</b>	<b>3805.61</b>	<b>16.60</b>	<b>0</b>	<b>3789.01</b>
MW-49	7/1/1993	3805.61	21.98	0	3783.63
MW-49	10/1/1993	3805.61	21.93	0	3783.68
MW-49	1/1/1994	3805.61	22.27	0	3783.34
MW-49	4/1/1994	3805.61	22.64	0	3782.97
MW-49	7/1/1994	3805.61	22.73	0	3782.88
MW-49	10/1/1994	3805.61	22.30	0	3783.31
MW-49	1/1/1995	3805.61	22.56	0	3783.05
MW-49	4/1/1995	3805.61	22.94	0	3782.67
MW-49	7/1/1995	3805.61	22.94	0	3782.67
MW-49	10/1/1995	3805.61	22.68	0	3782.93
MW-49	1/16/1996	3805.61	22.55	0	3783.06
MW-49	4/19/1996	3805.61	22.59	0	3783.02
MW-49	7/15/1996	3805.61	22.76	0	3782.85

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-49	10/13/1996	3805.61	19.54	0	3786.07
MW-49	2/3/1997	3805.61	20.66	0	3784.95
MW-49	3/18/1997	3805.61	20.99	0	3784.62
MW-49	4/28/1997	3805.61	20.70	0	3784.91
MW-49	7/14/1997	3805.61	20.31	0	3785.30
MW-49	10/13/1997	3805.61	21.01	0	3784.60
MW-49	1/27/1998	3805.61	21.08	0	3784.53
MW-49	4/27/1998	3805.61	21.34	0	3784.27
MW-49	6/16/1998	3805.61	21.35	0	3784.26
MW-49	10/9/1998	3805.61	22.52	0	3783.09
MW-49	1/27/1999	3805.61	20.50	0	3785.11
MW-49	4/19/1999	3805.61	20.81	0	3784.80
MW-49	1/5/2000	3805.61	20.07	0	3785.54
MW-49	4/26/2000	3805.61	20.30	0	3785.31
MW-49	9/27/2000	3805.61	20.52	0	3785.09
MW-49	4/16/2001	3805.61	20.03	0	3785.58
MW-49	10/29/2001	3805.61	19.96	0	3785.65
MW-49	4/15/2002	3805.61	19.76	0	3785.85
MW-49	10/14/2002	3805.61	20.56	0	3785.05
MW-49	04/15/2003	3805.61	22.08	0	3783.53
MW-49	10/14/2003	3805.61	22.52	0	3783.09
MW-49	4/5/2004	3805.61	22.79	0	3782.82
MW-49	10/5/2004	3805.61	18.33	0	3787.28
MW-49	4/19/2005	3805.61	18.23	0	3787.38
MW-49	10/24/2005	3805.61	21.01	0	3784.60
MW-49	4/18/2006	3805.61	22.29	0	3783.32
MW-49	10/11/2006	3805.61	20.49	0	3785.12
MW-49	4/16/2007	3805.61	21.43	0	3784.18
MW-49	10/22/2007	3805.61	18.81	0	3786.80
MW-49	5/27/2009	3805.61	22.35	0	3783.26
MW-49	6/21/2010	3805.61	22.33	0	3783.28
MW-49	12/28/2010	3805.61	20.92	0	3784.69
MW-49	6/30/2011	3805.61	21.95	0	3783.66
MW-49	12/15/2011	3805.61	21.11	0	3784.50
MW-49	6/27/2012	3805.61	22.40	0	3783.21
MW-49	12/1/2012	3805.61	22.12	0	3783.49
MW-49	6/1/2013	3805.61	22.40	0	3783.21
MW-49	12/12/2013	3805.61	20.05	0	3785.56
MW-49	6/25/2014	3805.61	19.42	0	3786.19
MW-49	12/16/2014	3805.61	17.49	0	3788.12
MW-49	4/28/2015	3805.61	20.21	0	3785.40
MW-49	10/13/2015	3805.61	20.95	0	3784.66
MW-49	5/24/2016	3805.61	21.41	0	3784.20
MW-49	12/6/2016	3805.61	21.62	0	3783.99
MW-49	7/12/2017	3805.61	22.40	0	3783.21
MW-49	12/17/2017	3805.61	21.08	0	3784.53
MW-49	7/8/2018	3805.61	22.31	0	3783.30
MW-49	11/13/2018	3805.61	22.59	0	3783.02
MW-49	6/24/2019	3805.61	22.38	0	3783.23
MW-49	12/10/2019	3805.61	21.22	0	3784.39
MW-49	6/10/2020	3805.61	20.94	0	3784.67
MW-49	11/2/2020	3805.61	22.36	0	3783.25
MW-49	6/22/2021	3805.61	23.02	0	3782.59
MW-49	12/6/2021	3805.61	20.08	0	3785.53
MW-49	6/23/2022	3805.61	21.94	0	3783.67
MW-49	11/1/2022	3805.61	21.36	0	3784.25
MW-49	6/21/2023	3805.61	21.97	0	3783.64
MW-49	11/16/2023	3805.61	22.60	0	3783.01
<b>MW-77</b>	<b>1/1/1995</b>	<b>3775.48</b>	<b>80.03</b>	<b>0</b>	<b>3695.45</b>
MW-77	4/1/1995	3775.48	80.04	0	3695.44
MW-77	7/1/1995	3775.48	80.04	0	3695.44
MW-77	10/1/1995	3775.48	79.70	0	3695.78
MW-77	1/16/1996	3775.48	79.84	0	3695.64

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-77	4/17/1996	3775.48	78.95	0	3696.53
MW-77	7/16/1996	3775.48	79.42	0	3696.06
MW-77	10/14/1996	3775.48	80.02	0	3695.46
MW-77	2/4/1997	3775.48	D	0	--
MW-77	4/29/1997	3775.48	80.35	0	3695.13
MW-77	7/15/1997	3775.48	80.31	0	3695.17
MW-77	10/14/1997	3775.48	78.92	0	3696.56
MW-77	1/28/1998	3775.48	77.00	0	3698.48
MW-77	4/27/1998	3775.48	78.48	0	3697.00
MW-77	6/16/1998	3775.48	75.30	0	3700.18
MW-77	10/10/1998	3775.48	79.84	0	3695.64
MW-77	1/27/1999	3775.48	76.41	0	3699.07
MW-77	4/19/1999	3775.48	77.50	0	3697.98
MW-77	1/5/2000	3775.48	79.36	0	3696.12
MW-77	4/26/2000	3775.48	78.57	0	3696.91
MW-77	9/27/2000	3775.48	78.86	0	3696.62
MW-77	4/16/2001	3775.48	79.91	0	3695.57
MW-77	10/29/2001	3775.48	79.72	0	3695.76
MW-77	4/15/2002	3775.48	80.42	0	3695.06
MW-77*	10/14/2002	3775.48	57.95	0	3717.53
MW-77	04/15/2003	3775.48	69.95	0	3705.53
MW-77	10/14/2003	3775.48	73.98	0	3701.50
MW-77	4/5/2004	3775.48	79.88	0	3695.60
MW-77	10/5/2004	3775.48	63.37	0	3712.11
MW-77	4/19/2005	3775.48	67.06	0	3708.42
MW-77	10/24/2005	3775.48	63.89	0	3711.59
MW-77	4/18/2006	3775.48	80.43	0	3695.05
MW-77	10/11/2006	3775.48	78.89	0	3696.59
MW-77	4/17/2007	3775.48	76.32	0	3699.16
MW-77	10/22/2007	3775.48	73.36	0	3702.12
MW-77	5/27/2009	3775.48	D	0	--
MW-77	6/21/2010	3775.48	80.57	0	3694.91
MW-77	12/28/2010	3775.48	80.37	0	3695.11
MW-77	6/30/2011	3775.48	80.47	0	3695.01
MW-77	12/15/2011	3775.48	80.55	0	3694.93
MW-77	6/27/2012	3775.48	81.00	0	3694.48
MW-77	12/1/2012	3775.48	80.51	0	3694.97
MW-77	6/1/2013	3775.48	81.00	0	3694.48
MW-77	12/12/2013	3775.48	78.76	0	3696.72
MW-77	6/25/2014	3775.48	71.32	0	3704.16
MW-77	12/16/2014	3775.48	80.45	0	3695.03
MW-77	4/28/2015	3775.48	80.61	0	3694.87
MW-77	10/13/2015	3775.48	80.63	0	3694.85
MW-77	5/24/2016	3775.48	80.47	0	3695.01
MW-77	12/6/2016	3775.48	80.50	0	3694.98
MW-77	7/12/2017	3775.48	80.55	0	3694.93
MW-77	12/17/2017	3775.48	80.41	0	3695.07
MW-77	7/8/2018	3775.48	80.49	0	3694.99
MW-77	11/13/2018	3775.48	80.30	0	3695.18
MW-77	6/24/2019	3775.48	80.26	0	3695.22
MW-77	12/10/2019	3775.48	72.72	0	3702.76
MW-77	6/10/2020	3775.48	80.50	0	3694.98
MW-77	11/2/2020	3775.48	70.62	0	3704.86
MW-77	6/22/2021	3775.48	80.54	0	3694.94
MW-77	12/6/2021	3775.48	77.20	0	3698.28
MW-77	6/23/2022	3775.48	76.04	0	3699.44
MW-77	11/1/2022	3775.48	80.52	0	3694.96
MW-77	6/21/2023	3775.48	Dry	0	--
MW-77	11/16/2023	3775.48	81.86	0	3693.62
<b>MW-106</b>	<b>2/4/1997</b>	<b>3721.97</b>	<b>87.97</b>	<b>0</b>	<b>3634.00</b>
MW-106	4/28/1997	3721.97	87.59	0	3634.38
MW-106	7/15/1997	3721.97	87.63	0	3634.34
MW-106	10/13/1997	3721.97	88.75	0	3633.22

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-106	1/28/1998	3721.97	88.97	0	3633.00
MW-106	4/27/1998	3721.97	89.36	0	3632.61
MW-106	6/15/1998	3721.97	89.63	0	3632.34
MW-106	10/10/1998	3721.97	89.61	0	3632.36
MW-106	1/27/1999	3721.97	86.55	0	3635.42
MW-106	4/19/1999	3721.97	89.58	0	3632.39
MW-106	1/5/2000	3721.97	89.05	0	3632.92
MW-106	4/26/2000	3721.97	89.31	0	3632.66
MW-106	9/27/2000	3721.97	87.98	0	3633.99
MW-106	4/16/2001	3721.97	88.81	0	3633.16
MW-106	10/29/2001	3721.97	89.05	0	3632.92
MW-106	4/15/2002	3721.97	89.05	0	3632.92
MW-106	10/14/2002	3721.97	87.40	0	3634.57
MW-106	04/15/2003	3721.97	88.91	0	3633.06
MW-106	10/14/2003	3721.97	89.94	0	3632.03
MW-106	4/5/2004	3721.97	89.34	0	3632.63
MW-106	10/5/2004	3721.97	75.78	0	3646.19
MW-106	4/19/2005	3721.97	88.54	0	3633.43
MW-106	10/24/2005	3721.97	88.47	0	3633.50
MW-106	4/18/2006	3721.97	89.71	0	3632.26
MW-106	10/11/2006	3721.97	87.09	0	3634.88
MW-106	4/17/2007	3721.97	89.4	0	3632.57
MW-106	10/22/2007	3721.97	88.64	0	3633.33
MW-106	5/27/2009	3721.97	D	--	--
MW-106	6/21/2010	3721.97	90.06	0	3631.91
MW-106	12/28/2010	3721.97	89.47	0	3632.50
MW-106	6/30/2011	3721.97	89.93	0	3632.04
MW-106	12/15/2011	3721.97	90.02	0	3631.95
MW-106	6/27/2012	3721.97	87.75	0	3634.22
MW-106	12/1/2012	3721.97	89.71	0	3632.26
MW-106	6/1/2013	3721.97	87.50	0	3634.47
MW-106	12/12/2013	3721.97	88.62	0	3633.35
MW-106	6/25/2014	3721.97	88.27	0	3633.70
MW-106	12/16/2014	3721.97	88.44	0	3633.53
MW-106	4/28/2015	3721.97	89.03	0	3632.94
MW-106	10/13/2015	3721.97	88.01	0	3633.96
MW-106	5/24/2016	3721.97	89.76	0	3632.21
MW-106	12/6/2016	3721.97	89.93	0	3632.04
MW-106	7/12/2017	3721.97	89.79	0	3632.18
MW-106	12/17/2017	3721.97	89.72	0	3632.25
MW-106	7/8/2018	3721.97	89.68	0	3632.29
MW-106	11/13/2018	3721.97	88.54	0	3633.43
MW-106	6/24/2019	3721.97	88.10	0	3633.87
MW-106	12/10/2019	3721.97	88.20	0	3633.77
MW-106	6/10/2020	3721.97	89.50	0	3632.47
MW-106	11/2/2020	3721.97	89.11	0	3632.86
MW-106	6/22/2021	3721.97	88.46	0	3633.51
MW-106	12/6/2021	3721.97	88.79	0	3633.18
MW-106	6/23/2022	3721.97	88.60	0	3633.37
MW-106	11/1/2022	3721.97	89.35	0	3632.62
MW-106	6/21/2023	3721.97	89.34	0	3632.63
MW-106	11/16/2023	3721.97	88.67	0	3633.30
<b>MW-126</b>	<b>1/5/2000</b>	<b>3795.58</b>	<b>53.08</b>	<b>0</b>	<b>3742.50</b>
MW-126	4/26/2000	3795.58	54.03	0	3741.55
MW-126	9/27/2000	3795.58	60.29	0	3735.29
MW-126	4/16/2001	3795.58	54.25	0.52	3741.71
MW-126	10/29/2001	3795.58	57.82	2.1	3739.29
MW-126	4/15/2002	3795.58	56.95	2.23	3740.26
MW-126	10/14/2002	3795.58	54.03	2.57	3743.43
MW-126	04/15/2003	3796.28	63.65	3.96	3735.52
MW-126	10/14/2003	3796.28	68.01	0	3728.27
MW-126	4/5/2004	3796.28	70.04	0	3726.24
MW-126	10/5/2004	3796.28	48.01	0.01	3748.28

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 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-126	4/19/2005	3796.28	50.63	0.25	3745.83
MW-126	10/24/2005	3796.28	51.78	0	3744.50
MW-126	4/18/2006	3796.28	66.79	0	3729.49
MW-126	10/11/2006	3796.28	51.76	0.08	3744.58
MW-126	4/17/2007	3796.28	62.92	0.6	3732.92
MW-126	10/22/2007	3796.28	56.30	0	3739.98
MW-126	5/27/2009	3796.28	69.95	0.05	3726.37
MW-126	6/21/2010	3796.28	70.40	0.23	3726.05
MW-126	12/28/2010	3796.28	66.12	0.56	3730.57
MW-126	6/30/2011	3796.28	69.55	0.45	3727.06
MW-126	12/15/2011	3796.28	70.21	0.22	3726.23
MW-126	6/27/2012	3796.28	67.72	0.29	3728.77
MW-126	12/1/2012	3796.28	71.19	0	3725.10
MW-126	6/1/2013	3796.28	72.00	0	3724.28
MW-126	12/12/2013	3796.28	53.52	0.11	3742.84
MW-126	6/25/2014	3796.28	63.63	0.08	3732.71
MW-126	12/16/2014	3796.28	44.65	0.19	3751.77
MW-126	4/28/2015	3796.28	52.46	0.21	3743.97
MW-126	10/13/2015	3796.28	65.03	0.27	3731.45
MW-126	5/24/2016	3796.28	66.50	0.27	3729.98
MW-126	12/6/2016	3796.28	62.04	0.69	3734.74
MW-126	7/12/2017	3796.28	69.83	0.3	3726.67
MW-126	12/17/2017	3796.28	66.64	0.21	3729.79
MW-126	7/8/2018	3796.28	69.72	0.2	3726.71
MW-126	11/13/2018	3796.28	67.79	0.16	3728.61
MW-126	6/24/2019	3796.28	69.73	0.20	3726.70
MW-126	12/10/2019	3796.28	53.72	0.12	3742.65
MW-126	6/10/2020	3796.28	65.52	0.12	3730.85
MW-126	11/2/2020	3796.28	68.32	0.17	3728.08
MW-126	6/22/2021	3796.28	70.36	0.10	3725.99
MW-126	12/6/2021	3796.28	48.96	0.12	3747.41
MW-126	6/23/2022	3796.28	88.93	0.44	3707.67
MW-126	11/1/2022	3796.28	63.69	0.15	3732.70
MW-126	6/21/2023	3796.28	D	0.00	--
MW-126	11/16/2023	3796.28	68.91	0.00	3727.37

**Lower Queen Wells**

MW-58	7/16/1991	3824.07	197.91	0	3626.16
MW-58	8/21/1991	3824.07	193.76	0	3630.31
MW-58	9/18/1991	3824.07	193.26	0	3630.81
MW-58	10/22/1991	3824.07	194.45	0	3629.62
MW-58	11/15/1991	3824.07	194.77	0	3629.30
MW-58	1/16/1996	3824.07	D	--	--
MW-58	7/16/1996	3824.07	D	--	--
MW-58	10/14/1996	3824.07	196.01	0.01	3628.06
MW-58	2/4/1997	3824.07	203.00	0	3621.07
MW-58	4/28/1997	3824.07	204.14	0	3619.93
MW-58	7/15/1997	3824.07	197.66	0	3626.41
MW-58	10/1/1997	3824.07	199.20	0.3	3625.08
MW-58	10/9/1997	3824.07	199.52	0.67	3625.03
MW-58	10/14/1997	3824.07	196.10	0	3627.97
MW-58	1/28/1998	3824.07	198.55	0	3625.52
MW-58	5/28/1998	3824.07	205.14	0	3618.93
MW-58	10/11/1998	3824.07	200.48	0	3623.59
MW-58	1/27/1999	3824.07	D	--	--
MW-58	4/19/1999	3824.07	217.17	0	3606.90
MW-58	1/5/2000	3824.07	210.57	0	3613.50
MW-58	4/26/2000	3824.07	223.51	0	3600.56
MW-58	9/27/2000	3824.07	220.18	0	3603.89
MW-58	4/16/2001	3824.07	114.83	0	3709.24
MW-58	10/29/2001	3824.07	177.31	0	3644.41
MW-58	4/15/2002	3824.07	201.92	0	3622.15
MW-58	10/14/2002	3824.07	199.69	0	3624.38
MW-58	2/13/2003	3824.07	201.08	0	3622.99

D = Dry  
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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-58	3/10/2003	3824.07	202.20	0	3621.87
MW-58	04/15/2003	3824.07	201.17	0	3622.90
MW-58	5/15/2003	3824.07	201.82	0	3622.25
MW-58	6/24/2003	3824.07	201.71	0	3622.36
MW-58	7/15/2003	3824.07	202.89	0	3621.18
MW-58	8/8/2003	3824.07	201.98	0	3622.09
MW-58	9/12/2005	3824.07	202.20	0	3621.87
MW-58	10/14/2003	3824.07	202.19	0	3621.88
MW-58	11/7/2003	3824.07	202.29	0	3621.78
MW-58	12/4/2003	3824.07	202.26	0	3621.81
MW-58	1/8/2004	3824.07	202.38	0.1	3621.76
MW-58	2/12/2004	3824.07	202.47	0	3621.60
MW-58	3/25/2004	3824.07	202.49	0	3621.58
MW-58	4/5/2004	3824.07	202.32	0	3621.75
MW-58	5/27/2004	3824.07	201.37	0.01	3622.71
MW-58	6/17/2004	3824.07	202.00	0	3622.07
MW-58	7/15/2004	3824.07	202.08	0	3621.99
MW-58	8/19/2004	3824.07	202.98	0.06	3621.13
MW-58	9/9/2004	3824.07	201.74	0	3622.33
MW-58	10/5/2004	3824.07	198.82	0	3625.25
MW-58	11/19/2004	3824.07	199.30	0.28	3624.97
MW-58	12/7/2004	3824.07	202.14	0	3621.93
MW-58	1/11/2005	3824.07	200.70	0.58	3623.79
MW-58	2/8/2005	3824.07	200.56	0	3623.51
MW-58	3/8/2005	3824.07	200.87	0	3623.20
MW-58	4/19/2005	3824.07	207.19	0	3616.88
MW-58	5/9/2005	3824.07	207.19	0	3616.88
MW-58	6/21/2005	3824.07	200.04	0	3624.03
MW-58	7/19/2005	3824.07	199.94	0	3624.13
MW-58	8/8/2005	3824.07	200.03	0	3624.04
MW-58	9/20/2005	3824.07	199.02	0	3625.05
MW-58	10/24/2005	3824.07	199.84	0.46	3624.57
MW-58	4/18/2006	3824.07	200.05	0	3624.02
MW-58	10/11/2006	3824.07	199.04	0.2	3625.18
MW-58	4/16/2007	3824.07	200.49	0.52	3623.20
MW-58	10/22/2007	3824.07	199.65	0	3624.42
MW-58	5/27/2009	3824.07	200.73	5.26	3627.18
MW-58	6/21/2010	3824.07	200.74	0.11	3623.41
MW-58	12/28/2010	3824.07	200.71	0.40	3623.65
MW-58	6/30/2011	3824.07	198.01	2.29	3627.73
MW-58	12/15/2011	3824.07	201.30	0.13	3622.86
MW-58	6/27/2012	3824.07	197.05	2.35	3628.74
MW-58	12/1/2012	3824.07	201.80	0.63	3622.73
MW-58	6/1/2013	3824.07	202.38	0.53	3622.08
MW-58	12/12/2013	3824.07	201.15	0.31	3623.15
MW-58	6/25/2014	3824.07	201.56	0	3622.51
MW-58	12/16/2014	3824.07	199.18	0	3624.89
MW-58	4/28/2015	3824.07	199.71	0.02	3624.37
MW-58*	10/13/2015	3824.07	160.00	0	3664.07
MW-58*	5/24/2016	3824.07	195.31	0.001	3628.76
MW-58*	12/6/2016	3824.07	130.48	0.001	3693.59
MW-58*	7/12/2017	3824.07	189.15	0.001	3634.92
MW-58	12/17/2017	3824.07	200.16	0	3623.91
MW-58	7/8/2018	3824.07	184.53	0	3639.54
MW-58	11/13/2018	3824.07	200.56	0	3623.51
MW-58	6/24/2019	3824.07	200.50	0.3	3623.79
MW-58	12/10/2019	3824.07	199.40	0.2	3624.82
MW-58	6/10/2020	3824.07	199.35	0.01	3624.73
MW-58	11/2/2020	3824.07	200.90	0.07	3623.22
MW-58	6/22/2021	3824.07	200.99	0.22	3623.24
MW-58	12/6/2021	3824.07	195.97	0.01	3628.11
MW-58	6/23/2022	3824.07	201.02	0.15	3623.16
MW-58	11/1/2022	3824.07	198.92	0	3625.15
MW-58	6/21/2023	3824.07	198.58	0	3625.49

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-58	11/16/2023	3824.07	197.82	0	3626.25
<b>MW-66</b>	<b>8/21/1991</b>	<b>3828.98</b>	<b>196.77</b>	<b>0</b>	<b>3632.21</b>
MW-66	9/18/1991	3828.98	198.73	0	3630.25
MW-66	10/22/1991	3828.98	199.70	0	3629.28
MW-66	11/15/1991	3828.98	199.88	0	3629.10
MW-66	3/1/1992	3828.98	200.37	0	3628.61
MW-66	4/1/1992	3828.98	200.25	0	3628.73
MW-66	5/1/1992	3828.98	195.25	0	3633.73
MW-66	6/1/1992	3828.98	196.08	0	3632.90
MW-66	7/1/1992	3828.98	197.35	0	3631.63
MW-66	8/1/1992	3828.98	197.77	0	3631.21
MW-66	9/1/1992	3828.98	198.17	0	3630.81
MW-66	10/1/1992	3828.98	198.40	0	3630.58
MW-66	11/1/1992	3828.98	198.76	0	3630.22
MW-66	12/1/1992	3828.98	198.98	0	3630.00
MW-66	1/1/1993	3828.98	199.10	0	3629.88
MW-66	2/1/1993	3828.98	199.23	0	3629.75
MW-66	3/1/1993	3828.98	199.49	0	3629.49
MW-66	4/1/1993	3828.98	199.38	0	3629.60
MW-66	5/1/1993	3828.98	199.63	0	3629.35
MW-66	6/1/1993	3828.98	199.59	0	3629.39
MW-66	7/1/1993	3828.98	199.82	0	3629.16
MW-66	8/1/1993	3828.98	199.78	0	3629.20
MW-66	9/1/1993	3828.98	200.01	0	3628.97
MW-66	10/1/1993	3828.98	200.09	0	3628.89
MW-66	11/1/1993	3828.98	200.35	0	3628.63
MW-66	12/1/1993	3828.98	200.42	0	3628.56
MW-66	1/1/1994	3828.98	200.33	0	3628.65
MW-66	2/1/1994	3828.98	201.39	0	3627.59
MW-66	3/1/1994	3828.98	201.44	0	3627.54
MW-66	4/1/1994	3828.98	201.36	0	3627.62
MW-66	5/1/1994	3828.98	201.26	0	3627.72
MW-66	7/1/1994	3828.98	200.91	0	3628.07
MW-66	8/1/1994	3828.98	199.86	0	3629.12
MW-66	9/1/1994	3828.98	200.66	0	3628.32
MW-66	10/1/1994	3828.98	200.83	0	3628.15
MW-66	12/1/1994	3828.98	201.96	0	3627.02
MW-66	1/1/1995	3828.98	201.04	0	3627.94
MW-66	4/1/1995	3828.98	202.26	0	3626.72
MW-66	7/1/1995	3828.98	201.59	0	3627.39
MW-66	10/1/1995	3828.98	201.62	0	3627.36
MW-66	1/16/1996	3828.98	200.89	0	3628.09
MW-66	4/17/1996	3828.98	202.29	0	3626.69
MW-66	7/16/1996	3828.98	202.45	0	3626.53
MW-66	10/13/1996	3828.98	200.80	0	3628.18
MW-66	2/4/1997	3828.98	202.60	0	3626.38
MW-66	4/28/1997	3828.98	202.84	0	3626.14
MW-66	7/14/1997	3828.98	202.72	0	3626.26
MW-66	9/30/1997	3828.98	204.00	0	3624.98
MW-66	10/9/1997	3828.98	204.20	0	3624.78
MW-66	10/13/1997	3828.98	203.77	0	3625.21
MW-66	1/27/1998	3828.98	203.79	0	3625.19
MW-66	4/27/1998	3828.98	204.09	0	3624.89
MW-66	5/28/1998	3828.98	204.18	0	3624.80
MW-66	6/15/1998	3828.98	204.37	0	3624.61
MW-66	10/10/1998	3828.98	204.86	0	3624.12
MW-66	1/27/1999	3828.98	205.05	0	3623.93
MW-66	4/19/1999	3828.98	205.10	0	3623.88
MW-66	1/5/1999	3828.98	205.13	0	3623.85
MW-66	4/26/2000	3828.98	205.41	0	3623.57
MW-66	9/27/2000	3828.98	205.78	0	3623.20
MW-66	4/16/2001	3828.98	205.59	0	3623.39
MW-66	10/29/2001	3828.98	206.04	0	3622.94

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 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-66	4/15/2002	3828.98	205.98	0	3623.00
MW-66	10/14/2002	3828.98	199.87	0	3629.11
MW-66	04/15/2003	3828.98	205.39	0	3623.59
MW-66	10/14/2003	3828.98	206.41	0	3622.57
MW-66	4/5/2004	3828.98	206.65	0	3622.33
MW-66	10/5/2004	3828.98	203.05	0	3625.93
MW-66	4/19/2005	3828.98	205.48	0	3623.50
MW-66	10/24/2005	3828.98	204.97	0	3624.01
MW-66	4/18/2006	3828.98	205.44	0	3623.54
MW-66	10/11/2006	3828.98	204.64	0	3624.34
MW-66	4/16/2007	3828.98	205.51	0	3623.47
MW-66	10/22/2007	3828.98	205.29	0	3623.69
MW-66	5/27/2009	3828.98	206.47	0	3622.51
MW-66	6/21/2010	3828.98	206.82	0	3622.16
MW-66	12/28/2010	3828.98	206.46	0	3622.52
MW-66	6/30/2011	3828.98	206.94	0	3622.04
MW-66	12/15/2011	3828.98	207.46	0	3621.52
MW-66	6/27/2012	3828.98	208.46	0	3620.52
MW-66	12/1/2012	3828.98	208.19	0	3620.79
MW-66	6/1/2013	3828.98	208.46	0	3620.52
MW-66	12/12/2013	3828.98	207.25	0	3621.73
MW-66	6/25/2014	3828.98	208.02	0	3620.96
MW-66	12/16/2014	3828.98	205.98	0	3623.00
MW-66	4/28/2015	3828.98	206.73	0	3622.25
MW-66	10/13/2015	3828.98	206.90	0	3622.08
MW-66	5/24/2016	3828.98	207.28	0	3621.70
MW-66	12/6/2016	3828.98	207.91	0	3621.07
MW-66	7/12/2017	3828.98	207.28	0	3621.70
MW-66	12/17/2017	3828.98	206.75	0	3622.23
MW-66	7/8/2018	3828.98	209.58	0	3619.40
MW-66	11/13/2018	3828.98	206.90	0	3622.08
MW-66	6/24/2019	3828.98	206.78	0	3622.20
MW-66	12/10/2019	3828.98	205.96	0	3623.02
MW-66	6/10/2020	3828.98	206.12	0	3622.86
MW-66	11/2/2020	3828.98	206.36	0	3622.62
MW-66	6/22/2021	3828.98	206.87	0	3622.11
MW-66	12/6/2021	3828.98	206.41	0	3622.57
MW-66	6/23/2022	3828.98	203.99	0	3624.99
MW-66	11/1/2022	3828.98	204.00	0	3624.98
MW-66	6/21/2023	3828.98	204.34	0	3624.64
MW-66	11/16/2023	3828.98	204.39	0	3624.59
<b>MW-70</b>	<b>9/18/1991</b>	<b>3822.57</b>	<b>191.59</b>	<b>0</b>	<b>3630.98</b>
MW-70	10/22/1991	3822.57	191.68	0	3630.89
MW-70	11/15/1991	3822.57	192.20	0	3630.37
MW-70	3/1/1992	3822.57	192.74	0	3629.83
MW-70	4/1/1992	3822.57	192.62	0	3629.95
MW-70	5/1/1992	3822.57	189.97	0	3632.60
MW-70	6/1/1992	3822.57	188.42	0	3634.15
MW-70	7/1/1992	3822.57	188.87	0	3633.70
MW-70	8/1/1992	3822.57	189.54	0	3633.03
MW-70	9/1/1992	3822.57	190.02	0	3632.55
MW-70	10/1/1992	3822.57	190.48	0	3632.09
MW-70	11/1/1992	3822.57	190.86	0	3631.71
MW-70	12/1/1992	3822.57	191.17	0	3631.40
MW-70	1/1/1993	3822.57	191.39	0	3631.18
MW-70	2/1/1993	3822.57	191.54	0	3631.03
MW-70	3/1/1993	3822.57	191.77	0	3630.80
MW-70	4/1/1993	3822.57	191.80	0	3630.77
MW-70	5/1/1993	3822.57	192.09	0	3630.48
MW-70	6/1/1993	3822.57	192.18	0	3630.39
MW-70	7/1/1993	3822.57	192.32	0	3630.25
MW-70	8/1/1993	3822.57	192.30	0	3630.27
MW-70	9/1/1993	3822.57	192.53	0	3630.04

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 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-70	10/1/1993	3822.57	192.65	0	3629.92
MW-70	11/1/1993	3822.57	192.91	0	3629.66
MW-70	12/1/1993	3822.57	192.96	0	3629.61
MW-70	1/1/1994	3822.57	192.99	0	3629.58
MW-70	2/1/1994	3822.57	194.02	0	3628.55
MW-70	3/1/1994	3822.57	194.00	0	3628.57
MW-70	4/1/1994	3822.57	193.19	0	3629.38
MW-70	5/1/1994	3822.57	193.86	0	3628.71
MW-70	7/1/1994	3822.57	193.59	0	3628.98
MW-70	8/1/1994	3822.57	193.09	0	3629.48
MW-70	9/1/1994	3822.57	193.17	0	3629.40
MW-70	10/1/1994	3822.57	193.38	0	3629.19
MW-70	12/1/1994	3822.57	194.58	0	3627.99
MW-70	1/1/1995	3822.57	192.83	0	3629.74
MW-70	4/1/1995	3822.57	194.11	0	3628.46
MW-70	7/1/1995	3822.57	194.19	0	3628.38
MW-70	10/1/1995	3822.57	194.19	0	3628.38
MW-70	1/16/1996	3822.57	194.68	0	3627.89
MW-70	4/17/1996	3822.57	194.94	0	3627.63
MW-70	7/15/1996	3822.57	194.70	0	3627.87
MW-70	10/13/1996	3822.57	193.98	0	3628.59
MW-70	2/3/1997	3822.57	194.47	0	3628.10
MW-70	4/28/1997	3822.57	195.01	0	3627.56
MW-70	7/14/1997	3822.57	195.44	0	3627.13
MW-70	10/1/1997	3822.57	196.20	0	3626.37
MW-70	10/13/1997	3822.57	196.05	0	3626.52
MW-70	10/29/1997	3822.57	196.24	0.01	3626.33
MW-70	11/4/1997	3822.57	196.35	0	3626.22
MW-70	11/12/1997	3822.57	196.34	0	3626.23
MW-70	11/19/1997	3822.57	196.36	0.01	3626.21
MW-70	11/24/1997	3822.57	196.36	0	3626.21
MW-70	12/10/1997	3822.57	196.47	0	3626.10
MW-70	1/27/1998	3822.57	196.22	0	3626.35
MW-70	2/25/1998	3822.57	196.45	0	3626.12
MW-70	4/27/1998	3822.57	196.48	0	3626.09
MW-70	5/28/1998	3822.57	196.91	0	3625.66
MW-70	6/15/1998	3822.57	196.74	0	3625.83
MW-70	10/9/1998	3822.57	197.27	0	3625.30
MW-70	1/27/1999	3822.57	199.24	0	3623.33
MW-70	4/19/1999	3822.57	197.40	0	3625.17
MW-70	1/5/2000	3822.57	197.73	0	3624.84
MW-70	4/26/2000	3822.57	197.71	0	3624.86
MW-70	9/27/2000	3822.57	198.02	0	3624.55
MW-70	4/16/2001	3822.57	198.34	0	3624.23
MW-70	10/29/2001	3822.57	198.30	0	3624.27
MW-70	4/15/2002	3822.57	198.85	0	3623.72
MW-70	10/14/2002	3822.57	196.95	0	3625.62
MW-70	04/15/2003	3822.57	198.12	0	3624.45
MW-70	10/14/2003	3822.57	199.14	0	3623.43
MW-70	4/5/2004	3822.57	199.41	0	3623.16
MW-70	10/5/2004	3822.57	197.30	0	3625.27
MW-70	4/19/2005	3822.57	197.70	0	3624.87
MW-70	10/24/2005	3822.57	197.24	0	3625.33
MW-70	4/18/2006	3822.57	198.46	0	3624.11
MW-70	10/11/2006	3822.57	196.99	0	3625.58
MW-70	4/17/2007	3822.57	198.51	0	3624.06
MW-70	10/22/2007	3822.57	198.03	0	3624.54
MW-70	5/27/2009	3822.57	199.45	0	3623.12
MW-70	6/21/2010	3822.57	199.54	0	3623.03
MW-70	12/28/2010	3822.57	199.13	0	3623.44
MW-70	6/30/2011	3822.57	199.75	0	3622.82
MW-70	12/15/2011	3822.57	204.65	0	3617.92
MW-70	6/27/2012	3822.57	201.46	0	3621.11
MW-70	12/1/2012	3822.57	200.14	0	3622.43

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-70	6/1/2013	3822.57	200.49	0	3622.08
MW-70	12/12/2013	3822.57	NM	NM	NM
MW-70	6/25/2014	3822.57	201.74	0	3620.83
MW-70	12/16/2014	3822.57	198.48	0	3624.09
MW-70	4/28/2015	3822.57	199.29	0	3623.28
MW-70	10/13/2015	3822.57	199.69	0	3622.88
MW-70	5/24/2016	3822.57	200.21	0	3622.36
MW-70	12/6/2016	3822.57	199.86	0	3622.71
MW-70	7/12/2017	3822.57	200.27	0	3622.30
MW-70	12/17/2017	3822.57	199.79	0	3622.78
MW-70	7/8/2018	3822.57	200.17	0	3622.40
MW-70	11/13/2018	3822.57	199.47	0	3623.10
MW-70	6/24/2019	3822.57	199.63	0	3622.94
MW-70	12/10/2019	3822.57	199.04	0	3623.53
MW-70	6/10/2020	3822.57	199.04	0	3623.53
MW-70	11/2/2020	3822.57	199.17	0	3623.40
MW-70	6/22/2021	3822.57	199.73	0	3622.84
MW-70	12/6/2021	3822.57	195.12	0	3627.45
MW-70	6/23/2022	3822.57	196.55	0	3626.02
MW-70	11/1/2022	3822.57	196.52	0	3626.05
MW-70	6/21/2023	3822.57	196.99	0	3625.58
MW-70	11/16/2023	3822.57	197.26	0	3625.31
<b>MW-81</b>	<b>10/1/1995</b>	<b>3817.03</b>	<b>195.77</b>	<b>2.74</b>	<b>3623.26</b>
MW-81	1/16/1996	3817.03	199.04	4.29	3621.12
MW-81	4/17/1996	3817.03	204.35	9.95	3619.94
MW-81	7/16/1996	3817.03	204.26	9.37	3619.61
MW-81	10/13/1996	3817.03	202.11	8.49	3621.11
MW-81	2/4/1997	3817.03	197.25	2.11	3621.32
MW-81	4/28/1997	3817.03	204.40	9.15	3619.30
MW-81	7/14/1997	3817.03	196.19	1.45	3621.89
MW-81	10/9/1997	3817.03	200.02	0.02	3617.02
MW-81	10/14/1997	3817.03	200.96	0.06	3616.11
MW-81	10/29/1997	3817.03	202.44	1.44	3615.64
MW-81	11/4/1997	3817.03	200.92	0	3616.11
MW-81	11/12/1997	3817.03	200.95	0.25	3616.26
MW-81	11/19/1997	3817.03	200.94	0.01	3616.09
MW-81	11/24/1997	3817.03	200.81	0	3616.22
MW-81	12/10/1997	3817.03	200.85	0	3616.18
MW-81	1/6/1998	3817.03	199.35	0	3617.68
MW-81	1/15/1998	3817.03	199.30	0	3617.73
MW-81	1/20/1998	3817.03	200.89	0.79	3616.71
MW-81	1/27/1998	3817.03	200.14	0.89	3617.53
MW-81	2/3/1998	3817.03	200.88	0.58	3616.57
MW-81	2/10/1998	3817.03	206.74	1.64	3611.48
MW-81	2/17/1998	3817.03	218.70	12.08	3607.14
MW-81	2/25/1998	3817.03	217.41	11.41	3607.94
MW-81	4/27/1998	3817.03	197.05	0	3619.98
MW-81	5/28/1998	3817.03	192.28	0	3624.75
MW-81	6/15/1998	3817.03	197.58	0	3619.45
MW-81	10/11/1998	3817.03	193.23	0	3623.80
MW-81	1/27/1999	3817.03	200.12	0	3616.91
MW-81	4/19/1999	3817.03	200.84	0	3616.19
MW-81	1/5/2000	3817.03	199.38	0	3617.65
MW-81	4/26/2000	3817.03	201.35	0	3615.68
MW-81	9/27/2000	3817.03	202.99	0	3614.04
MW-81	4/16/2001	3817.03	201.94	0	3615.09
MW-81	10/29/2001	3817.03	204.69	0	3609.04
MW-81	4/15/2002	3817.03	193.94	0	3623.09
MW-81	10/14/2002	3817.03	192.80	0	3624.23
MW-81	04/15/2003	3817.03	193.41	0	3623.62
MW-81	10/14/2003	3817.03	194.42	0	3622.61
MW-81	4/5/2004	3817.03	194.58	0	3622.45
MW-81	10/5/2004	3817.03	192.67	2.96	3626.52

D = Dry  
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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-81	4/19/2005	3817.03	193.75	0	3623.28
MW-81	10/24/2005	3817.03	192.46	0	3624.57
MW-81	4/18/2006	3817.03	192.78	0	3624.25
MW-81	10/11/2006	3817.03	194.15	2.56	3624.75
MW-81	4/16/2007	3817.03	198.12	6.32	3614.30
MW-81	10/22/2007	3817.03	189.54	0	3627.49
MW-81	5/27/2009	3817.03	193.97	0.10	3623.13
MW-81	6/21/2010	3817.03	194.21	0.22	3622.98
MW-81	12/28/2010	3817.03	193.88	0.26	3623.34
MW-81	6/30/2011	3817.03	194.10	1.23	3623.83
MW-81	12/15/2011	3817.03	194.85	0.3	3622.40
MW-81	6/27/2012	3817.03	195.21	0.32	3622.05
MW-81	12/1/2012	3817.03	195.61	0.29	3621.63
MW-81	6/1/2013	3817.03	196.13	0.2	3621.05
MW-81	12/12/2013	3817.03	194.77	0.23	3622.43
MW-81	6/25/2014	3817.03	195.45	0.24	3621.76
MW-81	12/16/2014	3817.03	183.04	0	3633.99
MW-81	4/28/2015	3817.03	193.71	0	3623.32
MW-81	10/13/2015	3817.03	189.27	0	3627.76
MW-81	5/24/2016	3817.03	194.25	0.001	3622.78
MW-81	12/6/2016	3817.03	193.80	0.001	3623.23
MW-81	7/12/2017	3817.03	195.00	0.73	3622.56
MW-81	12/17/2017	3817.03	193.76	0.001	3623.27
MW-81	7/8/2018	3817.03	192.53	0.001	3624.50
MW-81	11/13/2018	3817.03	193.89	0.001	3623.14
MW-81	6/24/2019	3817.03	194.48	0.69	3623.05
MW-81	12/10/2019	3817.03	193.50	0.45	3623.86
MW-81	6/10/2020	3817.03	193.62	-0.15	3623.30
MW-81	11/2/2020	3817.03	193.64	0.04	3623.42
MW-81	6/22/2021	3817.03	190.85	0.04	3626.21
MW-81	12/6/2021	3817.03	189.56	0.09	3627.54
MW-81	6/23/2022	3817.03	190.95	0.04	3626.11
MW-81	11/1/2022	3817.03	190.52	0	3626.51
MW-81	6/21/2023	3817.03	190.92	0.06	3626.15
MW-81	11/16/2023	3817.03	187.71	0	3629.32
<b>MW-88</b>	<b>8/1/1996</b>	<b>3789.70</b>	<b>163.59</b>	<b>0</b>	<b>3626.11</b>
MW-88	10/13/1996	3789.70	162.22	0	3627.48
MW-88	2/4/1997	3789.70	163.38	0	3626.32
MW-88	4/28/1997	3789.70	163.54	0	3626.16
MW-88	7/14/1997	3789.70	163.84	0	3625.86
MW-88	10/1/1997	3789.70	164.40	0	3625.30
MW-88	10/9/1997	3789.70	164.38	0	3625.32
MW-88	10/13/1997	3789.70	164.34	0	3625.36
MW-88	1/27/1998	3789.70	164.41	0	3625.29
MW-88	4/27/1998	3789.70	164.84	0	3624.86
MW-88	5/28/1998	3789.70	164.00	0	3625.70
MW-88	6/15/1998	3789.70	164.87	0	3624.83
MW-88	10/10/1998	3789.70	165.38	0	3624.32
MW-88	1/27/1999	3789.70	165.49	0	3624.21
MW-88	4/19/1999	3789.70	165.54	0	3624.16
MW-88	1/5/2000	3789.70	165.62	0	3624.08
MW-88	4/26/2000	3789.70	165.87	0	3623.83
MW-88	9/27/2000	3789.70	166.25	0	3623.45
MW-88	4/16/2001	3789.70	166.21	0	3623.49
MW-88	10/29/2001	3789.70	166.49	0	3623.21
MW-88	4/15/2002	3789.70	166.53	0	3623.17
MW-88	10/14/2002	3789.70	165.52	0	3624.18
MW-88	04/15/2003	3789.70	165.98	0	3623.72
MW-88	10/14/2003	3789.70	166.89	0	3622.81
MW-88	4/5/2004	3789.70	167.15	0	3622.55
MW-88	10/5/2004	3789.70	163.52	0	3626.18
MW-88	4/19/2005	3789.70	166.38	0	3623.32
MW-88	10/24/2005	3789.70	165.67	0	3624.03

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-88	4/18/2006	3789.70	166.15	0	3623.55
MW-88	10/11/2006	3789.70	165.49	0	3624.21
MW-88	4/16/2007	3789.7	166.11	0	3623.59
MW-88	10/22/2007	3789.70	165.92	0	3623.78
MW-88	5/27/2009	3789.70	166.91	0	3622.79
MW-88	6/21/2010	3789.70	167.28	0	3622.42
MW-88	12/28/2010	3789.70	166.92	0	3622.78
MW-88	6/30/2011	3789.70	167.45	0	3622.25
MW-88	12/15/2011	3789.70	167.81	0	3621.89
MW-88	6/27/2012	3789.70	169.00	0	3620.70
MW-88	12/1/2012	3789.70	168.65	0	3621.05
MW-88	6/1/2013	3789.70	168.96	0	3620.74
MW-88	12/12/2013	3789.70	167.90	0	3621.80
MW-88	6/25/2014	3789.70	178.46	0	3611.24
MW-88	12/16/2014	3789.70	166.55	0	3623.15
MW-88	4/28/2015	3789.70	167.16	0	3622.54
MW-88	10/13/2015	3789.70	167.38	0	3622.32
MW-88	5/24/2016	3789.70	167.77	0	3621.93
MW-88	12/6/2016	3789.70	167.37	0	3622.33
MW-88	7/12/2017	3789.70	167.68	0	3622.02
MW-88	12/17/2017	3789.70	167.20	0	3622.50
MW-88	7/8/2018	3789.70	167.54	0	3622.16
MW-88	11/13/2018	3789.70	167.30	0	3622.40
MW-88	6/24/2019	3789.70	167.14	0	3622.56
MW-88	12/10/2019	3789.70	166.49	0	3623.21
MW-88	6/10/2020	3789.70	166.58	0	3623.12
MW-88	11/2/2020	3789.70	167.06	0	3622.64
MW-88	6/22/2021	3789.70	167.28	0	3622.42
MW-88	12/6/2021	3789.70	163.56	0	3626.14
MW-88	6/23/2022	3789.70	166.88	0	3622.82
MW-88	11/1/2022	3789.70	164.59	0	3625.11
MW-88	6/21/2023	3789.70	164.88	0	3624.82
MW-88	11/16/2023	3789.70	164.92	0	3624.78
<b>MW-111</b>	<b>6/19/1998</b>	<b>3824.44</b>	<b>200.24</b>	<b>0</b>	<b>3624.20</b>
MW-111	10/10/1998	3824.44	200.89	0	3623.55
MW-111	1/27/1999	3824.44	201.24	0	3623.20
MW-111	4/19/1999	3824.44	201.26	0	3623.18
MW-111	1/5/2000	3824.44	201.21	0	3623.23
MW-111	4/26/2000	3824.44	201.48	0	3622.96
MW-111	9/27/2000	3824.44	201.66	0	3622.78
MW-111	4/16/2001	3824.44	201.74	0	3622.70
MW-111	10/29/2001	3824.44	201.64	0	3622.80
MW-111	4/15/2002	3824.44	201.83	0	3622.61
MW-111	10/14/2002	3824.44	200.52	0	3623.92
MW-111	04/15/2003	3824.44	201.21	0	3623.23
MW-111	10/14/2003	3824.44	202.50	0	3621.94
MW-111	4/5/2004	3824.44	202.54	0	3621.90
MW-111	10/5/2004	3824.44	200.25	0	3624.19
MW-111	4/19/2005	3824.44	201.09	0	3623.35
MW-111	10/24/2005	3824.44	200.61	0	3623.83
MW-111	4/18/2006	3824.44	201.17	0	3623.27
MW-111	10/11/2006	3824.44	200.06	0	3624.38
MW-111	4/16/2007	3824.44	201.28	0	3623.16
MW-111	10/22/2007	3824.44	201.24	0	3623.20
MW-111	5/27/2009	3824.44	202.50	0	3621.94
MW-111	6/21/2010	3824.44	202.92	0	3621.52
MW-111	12/28/2010	3824.44	202.48	0	3621.96
MW-111	6/30/2011	3824.44	202.94	0	3621.50
MW-111	12/15/2011	3824.44	203.51	0	3620.93
MW-111	6/27/2012	3824.44	204.58	0	3619.86
MW-111	12/1/2012	3824.44	204.20	0	3620.24
MW-111	6/1/2013	3824.44	204.58	0	3619.86
MW-111	12/12/2013	3824.44	202.99	0	3621.45

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-111	6/25/2014	3824.44	204.10	0	3620.34
MW-111	12/16/2014	3824.44	201.65	0	3622.79
MW-111	4/28/2015	3824.44	202.64	0	3621.80
MW-111	10/13/2015	3824.44	202.92	0	3621.52
MW-111	5/24/2016	3824.44	203.21	0	3621.23
MW-111	12/6/2016	3824.44	202.95	0	3621.49
MW-111	7/12/2017	3824.44	203.34	0	3621.10
MW-111	12/17/2017	3824.44	202.95	0	3621.49
MW-111	7/8/2018	3824.44	203.27	0	3621.17
MW-111	11/13/2018	3824.44	203.14	0	3621.30
MW-111	6/24/2019	3824.44	203.20	0	3621.24
MW-111	12/10/2019	3824.44	203.85	0	3620.59
MW-111	6/10/2020	3824.44	202.15	0	3622.29
MW-111	11/2/2020	3824.44	202.62	0	3621.82
MW-111	6/22/2021	3824.44	202.92	0	3621.52
MW-111	12/6/2021	3824.44	198.32	0	3626.12
MW-111	6/23/2022	3824.44	199.70	0	3624.74
MW-111	11/1/2022	3824.44	199.82	0	3624.62
MW-111	6/21/2023	3824.44	201.17	0	3623.27
MW-111	11/16/2023	3824.44	200.34	0	3624.10
<b>MW-113</b>	<b>1/5/2000</b>	<b>3772.67</b>	<b>147.43</b>	<b>0</b>	<b>3625.24</b>
MW-113	4/26/2000	3772.67	148.28	0.88	3625.03
MW-113	9/27/2000	3772.67	147.72	0	3624.95
MW-113	4/16/2001	3772.67	148.11	0.13	3624.65
MW-113	10/29/2001	3772.67	148.95	0.2	3623.87
MW-113	4/15/2002	3772.67	148.72	0.14	3624.05
MW-113	10/14/2002	3772.67	147.33	0	3625.34
MW-113	04/15/2003	3772.67	148.69	0.53	3624.37
MW-113	10/14/2003	3772.67	149.24	0.21	3623.58
MW-113	4/5/2004	3772.67	142.42	0.2	3630.40
MW-113	10/5/2004	3772.67	144.58	0	3628.09
MW-113	4/19/2005	3772.67	147.90	0	3624.77
MW-113	10/24/2005	3772.67	147.51	0	3625.16
MW-113	4/18/2006	3772.67	148.21	0	3624.46
MW-113	10/11/2006	3772.67	147.29	0	3625.38
MW-113	4/17/2007	3772.67	148.61	0.31	3623.83
MW-113	10/22/2007	3772.67	NA	--	--
MW-113	5/27/2009	3772.67	149.10	T	3623.57
MW-113	6/21/2010	3772.67	149.47	0.05	3623.16
MW-113	12/28/2010	3772.67	149.09	0.04	3623.55
MW-113	6/30/2011	3772.67	149.55	0.05	3623.08
MW-113	12/15/2011	3772.67	150.10	0.04	3622.54
MW-113	6/27/2012	3772.67	150.34	0.14	3622.23
MW-113	12/1/2012	3772.67	150.87	0.81	3622.39
MW-113	6/1/2013	3772.67	151.07	0.79	3622.18
MW-113	12/12/2013	3772.67	150.03	0	3622.64
MW-113	6/25/2014	3772.67	150.51	0.01	3622.15
MW-113	12/16/2014	3772.67	148.65	0	3624.02
MW-113	4/28/2015	3772.67	149.34	0	3623.33
MW-113	10/13/2015	3772.67	149.42	0	3623.25
MW-113	5/24/2016	3772.67	149.97	0.001	3622.70
MW-113	12/6/2016	3772.67	149.41	0.001	3623.26
MW-113	7/12/2017	3772.67	149.80	0.001	3622.87
MW-113	12/17/2017	3772.67	149.31	0.001	3623.36
MW-113	7/8/2018	3772.67	149.62	0.001	3623.05
MW-113	11/13/2018	3772.67	149.30	0.001	3623.37
MW-113	6/24/2019	3772.67	149.22	0	3623.45
MW-113	12/10/2019	3772.67	148.62	0	3624.05
MW-113	6/10/2020	3772.67	149.74	0	3622.93
MW-113	11/2/2020	3772.67	149.52	0	3623.15
MW-113	6/22/2021	3772.67	149.36	0	3623.31
MW-113	12/6/2021	3772.67	145.50	0.01	3627.16
MW-113	6/23/2022	3772.67	146.49	0	3626.18

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**Appendix A**  
 Historic Fluid Level Data  
 May 1991 - December 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Well ID	Date	Measuring Point Elevation (feet amsl)	Depth to Water (feet bmp)	Condensate Thickness (feet)	Corrected Water-Level Elevation (feet amsl)
MW-113	11/1/2022	3772.67	146.44	0	3626.23
MW-113	6/21/2023	3772.67	146.63	0	3626.04
MW-113	11/16/2023	3772.67	146.90	0	3625.77
<b>MW-127</b>	<b>1/5/2000</b>	<b>3825.17</b>	<b>202.12</b>	<b>0</b>	<b>3623.05</b>
MW-127	4/26/2000	3825.17	202.34	0.46	3623.17
MW-127	9/27/2000	3825.17	202.00	0	3623.17
MW-127	4/16/2001	3825.17	202.70	0.07	3622.52
MW-127	10/29/2001	3825.17	202.51	0.03	3622.68
MW-127	4/15/2002	3825.17	202.74	0	3622.43
MW-127	10/14/2002	3825.17	200.92	0	3624.25
MW-127	04/15/2003	3825.17	202.50	0	3622.67
MW-127	10/14/2003	3825.17	202.99	0	3622.18
MW-127	4/5/2004	3825.17	203.15	0	3622.02
MW-127	10/5/2004	3825.17	200.48	0	3624.69
MW-127	4/19/2005	3825.17	201.81	0	3623.36
MW-127	10/24/2005	3825.17	201.00	0	3624.17
MW-127	4/18/2006	3825.17	201.80	0	3623.37
MW-127	10/11/2006	3825.17	200.66	0	3624.51
MW-127	4/17/2007	3825.17	202.3	0	3622.87
MW-127	10/22/2007	3825.17	201.97	0	3623.20
MW-127	5/27/2009	3825.17	203.10	0	3622.07
MW-127	6/21/2010	3825.17	203.46	0	3621.71
MW-127	12/28/2010	3825.17	202.88	0	3622.29
MW-127	6/30/2011	3825.17	203.27	0	3621.90
MW-127	12/15/2011	3825.17	203.87	0	3621.30
MW-127	6/27/2012	3825.17	204.95	0	3620.22
MW-127	12/1/2012	3825.17	204.14	0	3621.03
MW-127	6/1/2013	3825.17	204.95	0	3620.22
MW-127	12/12/2013	3825.17	203.39	0	3621.78
MW-127	6/25/2014	3825.17	204.47	0	3620.70
MW-127	12/16/2014	3825.17	202.08	0	3623.09
MW-127	4/28/2015	3825.17	203.03	0	3622.14
MW-127	10/13/2015	3825.17	203.13	0	3622.04
MW-127	5/24/2016	3825.17	203.56	0	3621.61
MW-127	12/6/2016	3825.17	203.26	0	3621.91
MW-127	7/12/2017	3825.17	203.70	0	3621.47
MW-127	12/17/2017	3825.17	203.27	0	3621.90
MW-127	7/8/2018	3825.17	203.63	0	3621.54
MW-127	11/13/2018	3825.17	203.30	0	3621.87
MW-127	6/24/2019	3825.17	208.23	0	3616.94
MW-127	12/10/2019	3825.17	202.18	0	3622.99
MW-127	6/10/2020	3825.17	202.39	0	3622.78
MW-127	11/2/2020	3825.17	202.76	0	3622.41
MW-127	6/22/2021	3825.17	203.25	0	3621.92
MW-127	12/6/2021	3825.17	198.71	0	3626.46
MW-127	6/23/2022	3825.17	199.98	0	3625.19
MW-127	11/1/2022	3825.17	200.15	0	3625.02
MW-127	6/21/2023	3825.17	200.51	0	3624.66
MW-127	11/16/2023	3825.17	200.68	0	3624.49

Notes:

\* MW-77 DTW does not agree with historical data.

D = Dry  
 NA = Not Available  
 NG = Not Gauged  
 NR = No Record

# APPENDIX B

## Historical Analytical Data



Appendix B

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) Chloride
		1,000	250
<b>MW-014</b>	<b>6/22/1998</b>	<b>1,400</b>	<b>330</b>
MW-014	4/18/2002	1,200	300
MW-014	10/24/2003	1,100	150
MW-014 (Dup 1)	10/24/2003	1,000	140
MW-014	4/25/2005	1,130	230
MW-014 (Dup 1)	4/25/2005	1,100	232
MW-014	4/27/2006	1,110	209
MW-014 (Dup 1)	4/27/2006	1,110	207
MW-014	4/20/2007	1,060	196
MW-014 (Dup 1)	4/20/2007	1,010	194
MW-014	6/25/2014	1,430	61.6
MW-014	4/30/2015	1,320	268
MW-014	5/25/2016	1,400	266
MW-014	7/12/2017	1,610	240
MW-014	6/25/2019	2,530	124
MW-014	6/10/2020	1,360	132
<b>MW-045</b>	<b>6/1/1991</b>	<b>5,440</b>	<b>507</b>
MW-045	9/1/1991	3,920	NA
MW-045	12/1/1991	NA	354
MW-045	7/15/1993	NA	434
MW-045	10/14/1993	NA	408
MW-045	1/13/1994	NA	440
MW-045	4/6/1994	NA	430
MW-045	7/20/1994	NA	429
MW-045	5/29/2009	2,540	174
MW-045	6/23/2010	4,190	473
MW-045	7/1/2011	3,630	208
MW-045	6/28/2012	3,840	314
MW-045	6/25/2014	4,120	98.7
MW-045	4/30/2015	5,990	209
MW-045	5/25/2016	5,400	238
MW-045 (Dup 1)	5/25/2016	5,340	245
MW-045	7/13/2017	5,620	308
MW-045	6/13/2018	5,090	256
MW-045	6/24/2019	5,500	177
MW-045 (Dup 1)	6/24/2019	5,300	127
MW-045	6/10/2020	5,230	150
MW-045	6/22/2021	5,750	497
MW-045	6/23/2022	6,480	313
MW-045	6/22/2023	5,380	266
<b>MW-046</b>	<b>6/1/1991</b>	<b>1,220</b>	<b>152</b>
MW-046	7/1/1991	NA	45
MW-046	10/1/1996	NA	170
MW-046	2/11/1997	NA	220

Notes:

NA No analysis performed  
 mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250
MW-046	5/29/1997		1,300
MW-046	7/18/1997		NA
MW-046	6/21/1998		940
MW-046	4/20/1999		580
MW-046	4/28/2000		565
MW-046	4/19/2001		570
MW-046	4/17/2002		490
MW-046	4/8/2004		2,300
MW-046	4/27/2005		1,090
MW-046	4/23/2007		1,770
MW-046	6/25/2014		870
MW-046	6/25/2019		3,880
MW-046	6/25/2020		1,630
<b>MW-049</b>	<b>6/1/1991</b>		<b>3,910</b>
MW-049	6/25/1991		NA
MW-049	7/15/1993		399
MW-049	10/14/1993		397
MW-049	1/13/1994		400
MW-049	4/6/1994		380
MW-049	7/20/1994		368
MW-049	10/5/1994		380
MW-049	1/11/1995		389
MW-049	4/6/1995		390
MW-049	7/21/1995		380
MW-049	10/12/1995		350
MW-049	1/20/1996		410
MW-049	4/19/1996		400
MW-049	7/1/1996		360
MW-049	10/1/1996		36
MW-049	2/7/1997		410
MW-049	3/20/1997		3,100
MW-049	7/18/1997		350
MW-049	6/21/1998		2,800
MW-049	4/20/1999		3,000
MW-049	4/27/2000		3,320
MW-049	4/17/2001		3,100
MW-049	4/17/2002		2,600
MW-049	10/28/2003		2,900
MW-049	4/9/2004		2,900
MW-049 (Dup-1)	4/9/2004		3,000
MW-049	4/25/2005		3,960
MW-049	4/26/2006		3,400
MW-049	4/20/2007		2,990
MW-049	5/28/2009		3,090
MW-049	6/23/2010		2,650

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) Chloride
		1,000	250
MW-049	7/1/2011	<u>3,250</u>	<u>347</u>
MW-049	6/28/2012	<u>3,640</u>	<u>325</u>
MW-049	6/28/2013	<u>4,290</u>	<u>289</u>
MW-049	6/25/2014	<u>3,570</u>	<u>356</u>
MW-049	4/30/2015	<u>5,220</u>	<u>464</u>
MW-049	5/25/2016	<u>4,900</u>	<u>379</u>
MW-049	7/12/2017	<u>4,390</u>	<u>355</u>
MW-049	6/13/2018	<u>3,780</u>	<u>314</u>
MW-049	6/24/2019	<u>3,540</u>	<u>285</u>
MW-049	6/10/2020	<u>4,000</u>	<u>491</u>
MW-049	6/22/2021	<u>3,360</u>	<u>316</u>
MW-049	6/23/2022	<u>4,050</u>	<u>343</u>
MW-049	6/22/2023	<u>3,940</u>	<u>317</u>
<b>MW-058</b>	<b>12/1/1991</b>	<b>NA</b>	<b>124</b>
MW-058	4/1/1992	NA	156
MW-058	7/1/1992	NA	149
MW-058	10/1/1992	NA	155
MW-058	1/1/1993	NA	175
MW-058	4/13/1993	NA	133
MW-058	7/13/1993	NA	133
MW-058	10/13/1993	NA	59
MW-058	4/5/1994	NA	48
MW-058	7/19/1994	NA	38
MW-058	10/6/1994	NA	36
MW-058	1/11/1995	NA	26
MW-058	4/8/1995	NA	39
MW-058	4/18/1996	NA	29
MW-058	10/1/1996	NA	38
MW-058	6/22/1998	760	42
MW-058	12/1/1991	NA	124
MW-058	4/1/1992	NA	156
MW-058	7/1/1992	NA	149
MW-058	10/1/1992	NA	155
MW-058	1/1/1993	NA	175
MW-058	4/13/1993	NA	133
MW-058	7/13/1993	NA	133
MW-058	10/13/1993	NA	59
MW-058	4/5/1994	NA	48
MW-058	7/19/1994	NA	38
MW-058	10/6/1994	NA	36
MW-058	1/11/1995	NA	26
MW-058	4/8/1995	NA	39
MW-058	4/18/1996	NA	29
MW-058	10/1/1996	NA	38
MW-058	6/22/1998	760	42

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250
<b>MW-066</b>	<b>12/1/1991</b>	<b>NA</b>	<b>9</b>
MW-066	4/1/1992	NA	8
MW-066	7/1/1991	NA	8
MW-066	10/1/1992	NA	8
MW-066	1/1/1993	NA	12
MW-066	4/13/1993	NA	8
MW-066	7/13/1993	NA	15
MW-066	10/12/1993	NA	7
MW-066	1/1/1994	NA	9
MW-066	4/7/1994	NA	8.7
MW-066	7/19/1994	NA	<5
MW-066	10/4/94	NA	8.8
MW-066	1/9/1995	NA	6
MW-066	4/11/1995	NA	8.9
MW-066	7/19/1995	NA	8
MW-066	10/10/1995	NA	9
MW-066	1/19/1996	NA	10
MW-066	4/17/1996	NA	9.6
MW-066	7/1/1996	NA	6
MW-066	10/1/1996	NA	7
MW-066	2/5/1997	NA	9
MW-066	5/6/1997	NA	9
MW-066	7/16/1997	NA	8
MW-066	10/15/1997	NA	NA
MW-066	6/17/1998	760	13
MW-066	4/21/1999	730	10
MW-066	4/27/2000	848	8.61
MW-066	4/18/2001	660	9.3
MW-066	4/19/2002	790	8.8
MW-066	10/22/2003	770	8.4
MW-066	4/6/2004	810	8.0
MW-066	4/21/2005	867	10.8
MW-066	4/19/2006	797	11.1
MW-066	4/18/2007	795	10.5
MW-066	5/27/2009	865	8.29
MW-066	6/22/2010	768	9.09
MW-066	6/30/2011	817	8.60
MW-066	6/28/2012	687	9.6
MW-066	6/25/2014	793	8.5
MW-066	4/29/2015	822	9.5
MW-066	5/24/2016	839	8.1
MW-066	7/13/2017	808	8.4
DUP-1	7/13/2017	819	8.5
MW-066	6/12/2018	857	8.6
MW-066	6/25/2019	860	8.1

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**  
 Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)		
		Constituent		
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250	
MW-066	6/9/2020		920	11.4
MW-066	6/22/2021		788	8.31
MW-066	6/23/2022		836	8.34
MW-066	6/22/2023		604	8.93
<b>MW-070</b>	<b>12/1/1991</b>		<b>NA</b>	<b>10</b>
MW-070	4/1/1992		NA	8
MW-070	7/1/1992		NA	9.2
MW-070	10/1/1992		NA	17
MW-070	1/1/1993		NA	8
MW-070	4/14/1993		NA	8
MW-070	7/13/1993		NA	8
MW-070	10/12/1993		NA	11
MW-070	1/11/1994		NA	10
MW-070	4/6/1994		NA	9.5
MW-070	7/18/1994		NA	8
MW-070	10/4/1994		NA	9.5
MW-070	1/9/1995		NA	9
MW-070	4/5/1995		NA	9.7
MW-070	7/18/1995		NA	9
MW-070	10/10/1995		NA	10
MW-070	1/18/1996		NA	11
MW-070	4/17/1996		NA	9.7
MW-070	7/1/1996		NA	8
MW-070	10/1/1996		NA	10
MW-070	2/5/1997		NA	10
MW-070	10/15/1997		NA	NA
MW-070	6/16/1998		370	12
MW-070	4/22/1999		310	11
MW-070	4/27/2000		385	8.61
MW-070	4/24/2001		270	9.8
MW-070	4/18/2002		310	15
MW-070	10/23/2003		350	10
MW-070	4/12/2004		420	9.9
MW-070	4/26/2005		336	11.6
MW-070	4/20/2006		328	11.5
MW-070	4/24/2007		<u>1,150</u>	21.9
MW-070	5/27/2009		508	10.2
MW-070	6/23/2010		350	9.96
MW-070	6/30/2011		426	9.5
MW-070	6/28/2012		509	33.3
MW-070	4/29/2015		377	109
MW-070	5/24/2016		402	9.6
MW-070	7/13/2017		333	9.9
MW-070	6/13/2018		498	10.3
MW-070	6/25/2019		<u>1,750</u>	9.87

Notes:

NA No analysis performed  
 mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

Appendix B

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)		
		Constituent		
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250	
MW-070	6/9/2020		394	8.61
MW-070	6/22/2021		431	10.7
MW-070	6/23/2022		388	9.84
MW-070	6/22/2023		14	10.1
<b>MW-077</b>	<b>7/21/1995</b>		<b>NA</b>	<b>110</b>
MW-077	1/20/1996		NA	120
MW-077	4/19/1996		NA	120
MW-077	7/1/1996		NA	100
MW-077	10/1/1996		NA	140
MW-077	5/7/1997		NA	150
MW-077	7/18/1997		NA	150
MW-077	10/24/2003		590	57
MW-077	4/7/2004		550	40
MW-077	4/27/2005		<u>1,110</u>	180
MW-077	4/26/2006		521	55
MW-077	6/23/2010		545	48
MW-077	6/30/2011		467	26.9
MW-077	6/25/2014		537	39.9
<b>MW-081</b>	<b>6/29/1998</b>		<b>800</b>	<b>16</b>
<b>MW-088</b>	<b>2/5/1997</b>		<b>970</b>	<b>30</b>
MW-088	4/30/1997		NA	26
MW-088	10/15/1997		NA	NA
MW-088	6/18/1998		840	22
MW-088	4/21/1999		800	24
MW-088	4/28/2000		876	43.1
MW-088	4/17/2001		770	23
MW-088	4/19/2002		750	35
MW-088	10/21/2003		810	22
MW-088	4/6/2004		820	19
MW-088	4/21/2005		945	27.8
MW-088	4/20/2006		780	29.7
MW-088	4/19/2007		861	32.8
MW-088	5/27/2009		937	48.1
MW-088	6/22/2010		919	35.2
MW-088	6/30/2011		946	41.1
MW-088	6/28/2012		912	29.8
MW-088	6/25/2014		863	26.2
MW-088	4/29/2015		914	30.6
MW-088	5/24/2016		975	27.4
MW-088	7/13/2017		984	29.8
MW-088	6/13/2018		<u>1,030</u>	28.9
MW-088	6/25/2019		920	28.4
MW-088	6/9/2020		962	25.5

Notes:

NA No analysis performed  
 mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)	
		Constituent	
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250
MW-088	6/22/2021		884
MW-088 (DUP-1)	6/22/2021		855
MW-088	6/23/2022		<u>1,020</u>
MW-088	6/22/2023		620
MW-088 (DUP-1)	6/22/2023		680
<b>MW-106</b>	<b>2/11/1997</b>		<b>430</b>
MW-106	5/7/1997		NA
MW-106	7/18/1997		NA
MW-106	6/18/1998		380
MW-106	4/29/1999		NA
MW-106	5/1/2000		350
MW-106	4/18/2001		340
MW-106	4/17/2002		350
MW-106	10/21/2003		350
MW-106	4/5/2004		540
MW-106	4/20/2005		405
MW-106	4/19/2006		371
MW-106	4/18/2007		396
MW-106	6/23/2010		349
MW-106	6/30/2011		368
MW-106	6/28/2012		374
MW-106	6/28/2013		387
MW-106	6/25/2014		374
MW-106	4/30/2015		388
MW-106	5/23/2016		388
MW-106	7/13/2017		364
MW-106	6/13/2018		404
MW-106	6/25/2019		368
MW-106	6/9/2020		383
MW-106	6/22/2021		362
MW-106	6/23/2022		428
MW-106	6/22/2023		230
<b>MW-111</b>	<b>6/29/1998</b>		<b>900</b>
MW-111	4/21/1999		760
MW-111	4/27/2000		994
MW-111	4/18/2001		800
MW-111	4/19/2002		750
MW-111	10/22/2003		800
MW-111	4/7/2004		790
MW-111	4/21/2005		932
MW-111	4/19/2006		872
MW-111	4/18/2007		874
MW-111	5/27/2009		886
MW-111	6/22/2010		750

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

**Appendix B**

Wet Chemistry, 1991 through 2023  
 OXY USA WTP Limited Partnership, Indian Basin Gas Plant, Eddy County, New Mexico

Station or Well Name	Sample Collection Date	Wet Chemistry Analytical Data (mg/L)		
		Constituent		
		New Mexico Standards	Total Dissolved Solids (TDS) 1,000 Chloride 250	
MW-111	6/30/2011		798	92.8
MW-111	6/28/2012		695	58.4
MW-111	6/28/2013		787	56.8
MW-111	6/25/2014		703	59.9
MW-111	4/30/2015		695	68.7
MW-111	5/27/2016		677	43.3
MW-111	7/13/2017		687	39.1
MW-111	6/13/2018		708	45.9
MW-111	6/25/2019		688	40
MW-111	6/9/2020		768	62.7
MW-111	6/22/2021		616	33.1
MW-111	6/23/2022		768	33.9
MW-111	6/22/2023		<u>1,120</u>	29.4
<b>MW-127</b>	<b>5/28/2009</b>		<b>766</b>	<b>77.1</b>
MW-127	6/23/2010		746	44.4
MW-127	7/1/2011		715	42.3
MW-127	6/28/2012		720	42.5
MW-127	6/28/2013		779	42.5
MW-127	6/25/2014		863	26.1
MW-127	4/30/2015		665	49.1
MW-127	5/25/2016		665	45.9
MW-127	7/13/2017		730	48.7
MW-127	6/14/2018		830	58.4
MW-127	6/25/2019		750	53
MW-127	6/10/2020		743	41.9
MW-127 (DUP-1)	6/10/2020		796	41.7
MW-127	6/22/2021		656	46.9
MW-127	6/23/2022		528	32.1
MW-127	6/22/2023		324	35.2

Notes:

NA No analysis performed

mg/L Milligrams per liter

1,100 Indicates result at/above the applicable standard

<5 Indicates the result is below the specified laboratory detection limit

# APPENDIX C

## Laboratory Analytical Reports





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June 29, 2023

Hugh Robotham  
Glenn Springs Holdings, Inc.  
PO Box 2148  
Houston, TX 77252-2148

Work Order: **HS23061744**

Laboratory Results for: **11129300 Indian Basin**

Dear Hugh Robotham,

ALS Environmental received 10 sample(s) on Jun 26, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'James Guin'.

Generated By: JUMOKE.LAWAL  
James Guin

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**Work Order:** HS23061744

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061744-01	11129300-TB-	Water		22-Jun-2023 00:00	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-02	MW-70	Groundwater		22-Jun-2023 09:18	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-03	MW-66	Groundwater		22-Jun-2023 11:29	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-04	MW-111	Groundwater		22-Jun-2023 10:38	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-05	MW-88	Groundwater		22-Jun-2023 12:48	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-06	MW-10C	Groundwater		22-Jun-2023 14:03	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-07	MW-127	Groundwater		22-Jun-2023 15:04	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-08	MW-45	Groundwater		22-Jun-2023 16:07	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-09	MW-49	Groundwater		22-Jun-2023 16:49	26-Jun-2023 09:05	<input type="checkbox"/>
HS23061744-10	Dup-1	Groundwater		22-Jun-2023 00:00	26-Jun-2023 09:05	<input type="checkbox"/>

**ALS Houston, US**

Date: 29-Jun-23

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**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**Work Order:** HS23061744

**CASE NARRATIVE**

---

**GCMS Volatiles by Method SW8260**

**Batch ID: R440047**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**WetChemistry by Method M2540C**

**Batch ID: R440206,R440207**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

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**WetChemistry by Method E300**

**Batch ID: R440052**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: 11129300-TB-  
 Collection Date: 22-Jun-2023 00:00

**ANALYTICAL REPORT**  
 WorkOrder:HS23061744  
 Lab ID:HS23061744-01  
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene	U		0.20	1.0	ug/L	1	27-Jun-2023 22:59
Ethylbenzene	U		0.30	1.0	ug/L	1	27-Jun-2023 22:59
Toluene	U		0.20	1.0	ug/L	1	27-Jun-2023 22:59
Xylenes, Total	U		0.30	1.0	ug/L	1	27-Jun-2023 22:59
Surr: 1,2-Dichloroethane-d4	109			70-126	%REC	1	27-Jun-2023 22:59
Surr: 4-Bromofluorobenzene	96.2			77-113	%REC	1	27-Jun-2023 22:59
Surr: Dibromofluoromethane	99.9			77-123	%REC	1	27-Jun-2023 22:59
Surr: Toluene-d8	107			82-127	%REC	1	27-Jun-2023 22:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-70  
 Collection Date: 22-Jun-2023 09:18

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-02  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 00:44
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 00:44
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 00:44
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 00:44
Surr: 1,2-Dichloroethane-d4	105			70-126	%REC	1	28-Jun-2023 00:44
Surr: 4-Bromofluorobenzene	95.0			77-113	%REC	1	28-Jun-2023 00:44
Surr: Dibromofluoromethane	98.3			77-123	%REC	1	28-Jun-2023 00:44
Surr: Toluene-d8	104			82-127	%REC	1	28-Jun-2023 00:44
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	10.1		0.200	0.500	mg/L	1	27-Jun-2023 12:07
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	14.0		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-66  
 Collection Date: 22-Jun-2023 11:29

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-03  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:05
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 01:05
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:05
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 01:05
Surr: 1,2-Dichloroethane-d4	108			70-126	%REC	1	28-Jun-2023 01:05
Surr: 4-Bromofluorobenzene	98.6			77-113	%REC	1	28-Jun-2023 01:05
Surr: Dibromofluoromethane	99.0			77-123	%REC	1	28-Jun-2023 01:05
Surr: Toluene-d8	103			82-127	%REC	1	28-Jun-2023 01:05
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	8.93		0.200	0.500	mg/L	1	27-Jun-2023 12:25
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	604		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-111  
 Collection Date: 22-Jun-2023 10:38

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-04  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:26
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 01:26
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:26
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 01:26
Surr: 1,2-Dichloroethane-d4	111			70-126	%REC	1	28-Jun-2023 01:26
Surr: 4-Bromofluorobenzene	96.3			77-113	%REC	1	28-Jun-2023 01:26
Surr: Dibromofluoromethane	103			77-123	%REC	1	28-Jun-2023 01:26
Surr: Toluene-d8	102			82-127	%REC	1	28-Jun-2023 01:26
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	29.4		0.200	0.500	mg/L	1	27-Jun-2023 13:28
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	1,120		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-88  
 Collection Date: 22-Jun-2023 12:48

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-05  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:47
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 01:47
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 01:47
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 01:47
Surr: 1,2-Dichloroethane-d4	108			70-126	%REC	1	28-Jun-2023 01:47
Surr: 4-Bromofluorobenzene	96.6			77-113	%REC	1	28-Jun-2023 01:47
Surr: Dibromofluoromethane	102			77-123	%REC	1	28-Jun-2023 01:47
Surr: Toluene-d8	104			82-127	%REC	1	28-Jun-2023 01:47
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	26.9		0.200	0.500	mg/L	1	27-Jun-2023 13:34
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	620		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-10C  
 Collection Date: 22-Jun-2023 14:03

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-06  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 02:08
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 02:08
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 02:08
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 02:08
Surr: 1,2-Dichloroethane-d4	109			70-126	%REC	1	28-Jun-2023 02:08
Surr: 4-Bromofluorobenzene	98.9			77-113	%REC	1	28-Jun-2023 02:08
Surr: Dibromofluoromethane	103			77-123	%REC	1	28-Jun-2023 02:08
Surr: Toluene-d8	106			82-127	%REC	1	28-Jun-2023 02:08
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	4.04		0.200	0.500	mg/L	1	27-Jun-2023 13:40
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	230		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-127  
 Collection Date: 22-Jun-2023 15:04

**ANALYTICAL REPORT**  
 WorkOrder:HS23061744  
 Lab ID:HS23061744-07  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>		Analyst: FT			
Benzene	U		0.20	1.0	ug/L	1	28-Jun-2023 02:29
Ethylbenzene	U		0.30	1.0	ug/L	1	28-Jun-2023 02:29
Toluene	U		0.20	1.0	ug/L	1	28-Jun-2023 02:29
Xylenes, Total	U		0.30	1.0	ug/L	1	28-Jun-2023 02:29
Surr: 1,2-Dichloroethane-d4	111			70-126	%REC	1	28-Jun-2023 02:29
Surr: 4-Bromofluorobenzene	98.0			77-113	%REC	1	28-Jun-2023 02:29
Surr: Dibromofluoromethane	105			77-123	%REC	1	28-Jun-2023 02:29
Surr: Toluene-d8	105			82-127	%REC	1	28-Jun-2023 02:29
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>		Analyst: TH			
Chloride	35.2		0.200	0.500	mg/L	1	27-Jun-2023 13:46
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	324		5.00	10.0	mg/L	1	28-Jun-2023 13:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-45  
 Collection Date: 22-Jun-2023 16:07

**ANALYTICAL REPORT**

WorkOrder:HS23061744  
 Lab ID:HS23061744-08  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 02:50
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 02:50
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 02:50
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 02:50
Surr: 1,2-Dichloroethane-d4	110			70-126	%REC	1	28-Jun-2023 02:50
Surr: 4-Bromofluorobenzene	97.4			77-113	%REC	1	28-Jun-2023 02:50
Surr: Dibromofluoromethane	102			77-123	%REC	1	28-Jun-2023 02:50
Surr: Toluene-d8	105			82-127	%REC	1	28-Jun-2023 02:50
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	266	*	2.00	5.00	mg/L	10	27-Jun-2023 13:52
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	5,380		5.00	10.0	mg/L	1	28-Jun-2023 14:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: MW-49  
 Collection Date: 22-Jun-2023 16:49

**ANALYTICAL REPORT**  
 WorkOrder:HS23061744  
 Lab ID:HS23061744-09  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
<b>Benzene</b>	<b>0.60</b>	J	<b>0.20</b>	<b>1.0</b>	<b>ug/L</b>	1	28-Jun-2023 03:11
Ethylbenzene	U		0.30	1.0	ug/L	1	28-Jun-2023 03:11
Toluene	U		0.20	1.0	ug/L	1	28-Jun-2023 03:11
Xylenes, Total	U		0.30	1.0	ug/L	1	28-Jun-2023 03:11
Surr: 1,2-Dichloroethane-d4	107			70-126	%REC	1	28-Jun-2023 03:11
Surr: 4-Bromofluorobenzene	97.3			77-113	%REC	1	28-Jun-2023 03:11
Surr: Dibromofluoromethane	101			77-123	%REC	1	28-Jun-2023 03:11
Surr: Toluene-d8	104			82-127	%REC	1	28-Jun-2023 03:11
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
<b>Chloride</b>	<b>317</b>	*	<b>2.00</b>	<b>5.00</b>	<b>mg/L</b>	10	27-Jun-2023 13:57
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
<b>Total Dissolved Solids (Residue, Filterable)</b>	<b>3,940</b>		<b>5.00</b>	<b>10.0</b>	<b>mg/L</b>	1	28-Jun-2023 14:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Houston, US**

Date: 29-Jun-23

Client: Glenn Springs Holdings, Inc.  
 Project: 11129300 Indian Basin  
 Sample ID: Dup-1  
 Collection Date: 22-Jun-2023 00:00

**ANALYTICAL REPORT**  
 WorkOrder:HS23061744  
 Lab ID:HS23061744-10  
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>LOW LEVEL VOLATILES BY SW8260C</b>		<b>Method:SW8260</b>					Analyst: FT
Benzene		U	0.20	1.0	ug/L	1	28-Jun-2023 03:32
Ethylbenzene		U	0.30	1.0	ug/L	1	28-Jun-2023 03:32
Toluene		U	0.20	1.0	ug/L	1	28-Jun-2023 03:32
Xylenes, Total		U	0.30	1.0	ug/L	1	28-Jun-2023 03:32
Surr: 1,2-Dichloroethane-d4	111			70-126	%REC	1	28-Jun-2023 03:32
Surr: 4-Bromofluorobenzene	97.4			77-113	%REC	1	28-Jun-2023 03:32
Surr: Dibromofluoromethane	107			77-123	%REC	1	28-Jun-2023 03:32
Surr: Toluene-d8	103			82-127	%REC	1	28-Jun-2023 03:32
<b>ANIONS BY E300.0, REV 2.1, 1993</b>		<b>Method:E300</b>					Analyst: TH
Chloride	26.8		0.200	0.500	mg/L	1	27-Jun-2023 14:03
<b>TOTAL DISSOLVED SOLIDS BY SM2540C-2011</b>		<b>Method:M2540C</b>					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	680		5.00	10.0	mg/L	1	28-Jun-2023 14:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> R440047 ( 0 )		<b>Test Name :</b> LOW LEVEL VOLATILES BY SW8260C			<b>Matrix:</b> Groundwater	
HS23061744-02	MW-70	22 Jun 2023 09:18			28 Jun 2023 00:44	1
HS23061744-03	MW-66	22 Jun 2023 11:29			28 Jun 2023 01:05	1
HS23061744-04	MW-111	22 Jun 2023 10:38			28 Jun 2023 01:26	1
HS23061744-05	MW-88	22 Jun 2023 12:48			28 Jun 2023 01:47	1
HS23061744-06	MW-10C	22 Jun 2023 14:03			28 Jun 2023 02:08	1
HS23061744-07	MW-127	22 Jun 2023 15:04			28 Jun 2023 02:29	1
HS23061744-08	MW-45	22 Jun 2023 16:07			28 Jun 2023 02:50	1
HS23061744-09	MW-49	22 Jun 2023 16:49			28 Jun 2023 03:11	1
HS23061744-10	Dup-1	22 Jun 2023 00:00			28 Jun 2023 03:32	1
<b>Batch ID:</b> R440047 ( 0 )		<b>Test Name :</b> LOW LEVEL VOLATILES BY SW8260C			<b>Matrix:</b> Water	
HS23061744-01	11129300-TB-	22 Jun 2023 00:00			27 Jun 2023 22:59	1
<b>Batch ID:</b> R440052 ( 0 )		<b>Test Name :</b> ANIONS BY E300.0, REV 2.1, 1993			<b>Matrix:</b> Groundwater	
HS23061744-02	MW-70	22 Jun 2023 09:18			27 Jun 2023 12:07	1
HS23061744-03	MW-66	22 Jun 2023 11:29			27 Jun 2023 12:25	1
HS23061744-04	MW-111	22 Jun 2023 10:38			27 Jun 2023 13:28	1
HS23061744-05	MW-88	22 Jun 2023 12:48			27 Jun 2023 13:34	1
HS23061744-06	MW-10C	22 Jun 2023 14:03			27 Jun 2023 13:40	1
HS23061744-07	MW-127	22 Jun 2023 15:04			27 Jun 2023 13:46	1
HS23061744-08	MW-45	22 Jun 2023 16:07			27 Jun 2023 13:52	10
HS23061744-09	MW-49	22 Jun 2023 16:49			27 Jun 2023 13:57	10
HS23061744-10	Dup-1	22 Jun 2023 00:00			27 Jun 2023 14:03	1
<b>Batch ID:</b> R440206 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Groundwater	
HS23061744-02	MW-70	22 Jun 2023 09:18			28 Jun 2023 13:51	1
HS23061744-03	MW-66	22 Jun 2023 11:29			28 Jun 2023 13:51	1
HS23061744-04	MW-111	22 Jun 2023 10:38			28 Jun 2023 13:51	1
HS23061744-05	MW-88	22 Jun 2023 12:48			28 Jun 2023 13:51	1
HS23061744-06	MW-10C	22 Jun 2023 14:03			28 Jun 2023 13:51	1
HS23061744-07	MW-127	22 Jun 2023 15:04			28 Jun 2023 13:51	1
<b>Batch ID:</b> R440207 ( 0 )		<b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011			<b>Matrix:</b> Groundwater	
HS23061744-08	MW-45	22 Jun 2023 16:07			28 Jun 2023 14:30	1
HS23061744-09	MW-49	22 Jun 2023 16:49			28 Jun 2023 14:30	1
HS23061744-10	Dup-1	22 Jun 2023 00:00			28 Jun 2023 14:30	1

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

**Batch ID:** R440047 ( 0 )      **Instrument:** VOA11      **Method:** LOW LEVEL VOLATILES BY SW8260C

<b>MBLK</b>		Sample ID: <b>VBLKW-230627</b>		Units: <b>ug/L</b>		Analysis Date: <b>27-Jun-2023 22:38</b>			
Client ID:		Run ID: <b>VOA11_440047</b>		SeqNo: <b>7389098</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	U	1.0							
Ethylbenzene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	52.98	1.0	50	0	106	70 - 123			
Surr: 4-Bromofluorobenzene	48.28	1.0	50	0	96.6	77 - 113			
Surr: Dibromofluoromethane	48.62	1.0	50	0	97.2	73 - 126			
Surr: Toluene-d8	53.14	1.0	50	0	106	81 - 120			

<b>LCS</b>		Sample ID: <b>VLCSW-230627</b>		Units: <b>ug/L</b>		Analysis Date: <b>27-Jun-2023 21:56</b>			
Client ID:		Run ID: <b>VOA11_440047</b>		SeqNo: <b>7389097</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	20.93	1.0	20	0	105	74 - 120			
Ethylbenzene	20.91	1.0	20	0	105	77 - 117			
Toluene	20.1	1.0	20	0	100	77 - 118			
Xylenes, Total	62.67	1.0	60	0	104	75 - 122			
Surr: 1,2-Dichloroethane-d4	53.36	1.0	50	0	107	70 - 123			
Surr: 4-Bromofluorobenzene	50.19	1.0	50	0	100	77 - 113			
Surr: Dibromofluoromethane	48.2	1.0	50	0	96.4	73 - 126			
Surr: Toluene-d8	51.54	1.0	50	0	103	81 - 120			

<b>MS</b>		Sample ID: <b>HS23061752-08MS</b>		Units: <b>ug/L</b>		Analysis Date: <b>28-Jun-2023 00:02</b>			
Client ID:		Run ID: <b>VOA11_440047</b>		SeqNo: <b>7389102</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	25.32	1.0	20	3.39	110	70 - 127			
Ethylbenzene	21.8	1.0	20	0.5717	106	70 - 124			
Toluene	22.04	1.0	20	1.559	102	70 - 123			
Xylenes, Total	71.29	1.0	60	5.583	110	70 - 130			
Surr: 1,2-Dichloroethane-d4	52.52	1.0	50	0	105	70 - 126			
Surr: 4-Bromofluorobenzene	49.46	1.0	50	0	98.9	77 - 113			
Surr: Dibromofluoromethane	50.86	1.0	50	0	102	77 - 123			
Surr: Toluene-d8	51.44	1.0	50	0	103	82 - 127			

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

**Batch ID:** R440047 ( 0 )      **Instrument:** VOA11      **Method:** LOW LEVEL VOLATILES BY SW8260C

<b>MSD</b>		Sample ID: <b>HS23061752-08MSD</b>		Units: <b>ug/L</b>		Analysis Date: <b>28-Jun-2023 00:23</b>			
Client ID:		Run ID: <b>VOA11_440047</b>		SeqNo: <b>7389103</b>		PrepDate:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	24.12	1.0	20	3.39	104	70 - 127	25.32	4.84	20
Ethylbenzene	21.33	1.0	20	0.5717	104	70 - 124	21.8	2.2	20
Toluene	21.56	1.0	20	1.559	100.0	70 - 123	22.04	2.23	20
Xylenes, Total	67.15	1.0	60	5.583	103	70 - 130	71.29	5.97	20
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>51.06</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>70 - 126</i>	<i>52.52</i>	<i>2.83</i>	<i>20</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>49.1</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>98.2</i>	<i>77 - 113</i>	<i>49.46</i>	<i>0.73</i>	<i>20</i>
<i>Surr: Dibromofluoromethane</i>	<i>48.47</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>96.9</i>	<i>77 - 123</i>	<i>50.86</i>	<i>4.81</i>	<i>20</i>
<i>Surr: Toluene-d8</i>	<i>50.9</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>102</i>	<i>82 - 127</i>	<i>51.44</i>	<i>1.06</i>	<i>20</i>

The following samples were analyzed in this batch:

HS23061744-01	HS23061744-02	HS23061744-03	HS23061744-04
HS23061744-05	HS23061744-06	HS23061744-07	HS23061744-08
HS23061744-09	HS23061744-10		

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

<b>Batch ID:</b> R440052 ( 0 )	<b>Instrument:</b> ICS-Integrion	<b>Method:</b> ANIONS BY E300.0, REV 2.1, 1993
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<b>MBLK</b>	Sample ID: <b>MBLK</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 09:47</b>							
Client ID:	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389199</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride U 0.500

<b>LCS</b>	Sample ID: <b>LCS</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 09:53</b>							
Client ID:	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389200</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 20.06 0.500 20 0 100 90 - 110

<b>LCSD</b>	Sample ID: <b>LCSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 11:38</b>							
Client ID:	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389211</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 20.32 0.500 20 0 102 90 - 110 20.06 1.26 20

<b>MS</b>	Sample ID: <b>HS23061744-03MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 12:30</b>							
Client ID: <b>MW-66</b>	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389216</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 19.02 0.500 10 8.927 101 80 - 120

<b>MS</b>	Sample ID: <b>HS23061744-02MS</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 12:13</b>							
Client ID: <b>MW-70</b>	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389213</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 20.19 0.500 10 10.13 101 80 - 120

<b>MSD</b>	Sample ID: <b>HS23061744-03MSD</b>	Units: <b>mg/L</b>	Analysis Date: <b>27-Jun-2023 12:36</b>							
Client ID: <b>MW-66</b>	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389217</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual

Chloride 19.08 0.500 10 8.927 102 80 - 120 19.02 0.278 20

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

<b>Batch ID:</b> R440052 ( 0 )		<b>Instrument:</b> ICS-Integrion		<b>Method:</b> ANIONS BY E300.0, REV 2.1, 1993					
<b>MSD</b>	Sample ID: <b>HS23061744-02MSD</b>	Units: <b>mg/L</b>			Analysis Date: <b>27-Jun-2023 12:19</b>				
Client ID: <b>MW-70</b>	Run ID: <b>ICS-Integrion_440052</b>	SeqNo: <b>7389214</b>	PrepDate:	DF: <b>1</b>					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Chloride	20.21	0.500	10	10.13	101	80 - 120	20.19	0.119	20

The following samples were analyzed in this batch:

HS23061744-02	HS23061744-03	HS23061744-04	HS23061744-05
HS23061744-06	HS23061744-07	HS23061744-08	HS23061744-09
HS23061744-10			

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

<b>Batch ID:</b> R440206 ( 0 )	<b>Instrument:</b> Balance1	<b>Method:</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011
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<b>MBLK</b>	Sample ID: <b>WBLK-06282023</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 13:51</b>							
Client ID:	Run ID: <b>Balance1_440206</b>	SeqNo: <b>7392994</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) U 10.0

<b>LCS</b>	Sample ID: <b>WLCS-06282023</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 13:51</b>							
Client ID:	Run ID: <b>Balance1_440206</b>	SeqNo: <b>7392995</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 1066 10.0 1000 0 107 85 - 115

<b>DUP</b>	Sample ID: <b>HS23061744-04DUP</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 13:51</b>							
Client ID: <b>MW-111</b>	Run ID: <b>Balance1_440206</b>	SeqNo: <b>7392986</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 1124 10.0 1124 0 20

<b>DUP</b>	Sample ID: <b>HS23061744-02DUP</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 13:51</b>							
Client ID: <b>MW-70</b>	Run ID: <b>Balance1_440206</b>	SeqNo: <b>7392983</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 12 10.0 14 15.4 20

<b>The following samples were analyzed in this batch:</b>	HS23061744-02	HS23061744-03	HS23061744-04	HS23061744-05
	HS23061744-06	HS23061744-07		

ALS Houston, US

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** HS23061744

**QC BATCH REPORT**

<b>Batch ID:</b> R440207 ( 0 )	<b>Instrument:</b> Balance1	<b>Method:</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011
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<b>MBLK</b>	Sample ID: <b>WBLK-06282023</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 14:30</b>							
Client ID:	Run ID: <b>Balance1_440207</b>	SeqNo: <b>7392855</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) U 10.0

<b>LCS</b>	Sample ID: <b>WLCS-06282023</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 14:30</b>							
Client ID:	Run ID: <b>Balance1_440207</b>	SeqNo: <b>7392856</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 1078 10.0 1000 0 108 85 - 115

<b>DUP</b>	Sample ID: <b>HS23061766-05DUP</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 14:30</b>							
Client ID:	Run ID: <b>Balance1_440207</b>	SeqNo: <b>7392850</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 328 10.0 326 0.612 20

<b>DUP</b>	Sample ID: <b>HS23061744-10DUP</b>	Units: <b>mg/L</b>	Analysis Date: <b>28-Jun-2023 14:30</b>							
Client ID: <b>Dup-1</b>	Run ID: <b>Balance1_440207</b>	SeqNo: <b>7392844</b>	PrepDate: DF: <b>1</b>							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Dissolved Solids (Residue, Filterable) 676 10.0 680 0.59 20

The following samples were analyzed in this batch: HS23061744-08 HS23061744-09 HS23061744-10

**ALS Houston, US**

Date: 29-Jun-23

**Client:** Glenn Springs Holdings, Inc.  
**Project:** 11129300 Indian Basin  
**WorkOrder:** **HS23061744**

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

**ALS Houston, US**

Date: 29-Jun-23

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**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

<b>Agency</b>	<b>Number</b>	<b>Expire Date</b>
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

ALS Houston, US

Date: 29-Jun-23

Sample Receipt Checklist

Work Order ID: HS23061744

Date/Time Received: 26-Jun-2023 09:05

Client Name: Glen Springs/CRA

Received by: Corey Grandits

Completed By: /S/ Malcolm Burlison	26-Jun-2023 14:28	Reviewed by: /S/ James Guin	27-Jun-2023 17:08
eSignature	Date/Time	eSignature	Date/Time

Matrices:

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes  No  Not Present
- Chain of custody present? Yes  No  1 Page(s)
- Chain of custody signed when relinquished and received? Yes  No  COC IDs:297249
- Samplers name present on COC? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s):	1.8uc 1.7c	ir31
Cooler(s)/Kit(s):	51149	
Date/Time sample(s) sent to storage:	06262023	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:		

Login Notes:

Client Contacted: \_\_\_\_\_ Date Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted By: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments:

Corrective Action:



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Holland, MI  
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# Chain of Custody Form

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COC ID: 297249

HS23061744

Glenn Springs Holdings, Inc.  
11129300 Indian Basin



ALS Project Manager: \_\_\_\_\_

Customer Information		Project Information		
Purchase Order	4502865846 767-402-D02-3100	Project Name	11129300 Indian Basin	A 300_W (Chloride) [250PNeat-share]
Work Order		Project Number	11129300	B TDS_W 2540C (2540C TDS) [250PNeat-share]
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C 8260_LL_W (8260 BTEX) - [3xVOAHC]
Send Report To	Michelle Kukta	Invoice Attn	Accounts Payable	D
Address	PO Box 2148	Address	PO Box 2148	E
				F
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	G
Phone		Phone		H
Fax		Fax		I
e-Mail Address	Michelle.Kukta@ghd.com	e-Mail Address	Chem_GSH@oxy.com	J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	11129300-TB-			Water	1.8	2			X								
2	MW-70	06/22/23	0918	Groundwa	1.8	4	X	X	X								
3	MW-69	06/22/23	1122	GW	1	4	X	X	X								
4	MW-111	06/22/23	1038	GW	1	4	X	X	X								
5	MW-88	06/22/23	1248	GW	1	4	X	X	X								
6	MW-100	06/22/23	1403	GW	1	4	X	X	X								
7	MW-127	06/22/23	1504	GW	1	4	X	X	X								
8	MW-45	06/22/23	1607	GW	1	4	X	X	X								
9	MW-49	06/22/23	1649	GW	1	4	X	X	X								
10																	



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# Chain of Custody Form

Page 1 of 1

COC ID: 297249

HS23061744

Glenn Springs Holdings, Inc.  
11129300 Indian Basin



ALS Project Manager:

Customer Information		Project Information		
Purchase Order	4502865846 767-402-D02-3100	Project Name	11129300 Indian Basin	A 300_W (Chloride) [250PNeat-share]
Work Order		Project Number	11129300	B TDS_W 2540C (2540C TDS) [250PNeat-share]
Company Name	Glenn Springs Holdings, Inc.	Bill To Company	Glenn Springs Holdings, Inc.	C 8260_LL_W (8260 BTEX) - [3xVOAHC]
Send Report To	Michelle Kukta	Invoice Attn	Accounts Payable	D
Address	PO Box 2148	Address	PO Box 2148	E
				F
City/State/Zip	Houston, TX 77252-2148	City/State/Zip	Houston TX 77252-2148	G
Phone		Phone		H
Fax		Fax		I
e-Mail Address	Michelle.Kukta@ghd.com	e-Mail Address	Chem_GSH@oxy.com	J

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	11129300-TB-			Water	1.8	2			X								
2	MW-70	06/22/23	0918	Groundwa	1.8	4	X	X	X								
3	MW-69	06/22/23	1122	GW	1	4	X	X	X								
4	MW-111	06/22/23	1038	GW	1	4	X	X	X								
5	MW-88	06/22/23	1248	GW	1	4	X	X	X								
6	MW-100	06/22/23	1403	GW	1	4	X	X	X								
7	MW-107	06/22/23	1504	GW	1	4	X	X	X								
8	MW-45	06/22/23	1607	GW	1	4	X	X	X								
9	MW-47	06/22/23	1649	GW	1	4	X	X	X								
10	DUP-1	06/22/23		GW	1	4	X	X	X								

Sampler(s) Please Print & Sign \_\_\_\_\_ Shipment Method \_\_\_\_\_ Required Turnaround Time: (Check Box)  STD 10 WK Days  5 Wk Days  2 Wk Days  24 Hour Results Due Date: \_\_\_\_\_

Relinquished by: Jerry S. Hernandez Date: 06/22/23 Time: 1235 Received by: \_\_\_\_\_ Notes: GSH Indian Basin

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by (Laboratory): CA 6-24-23 0905


Logged by (Laboratory): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Checked by (Laboratory): \_\_\_\_\_

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 6-NaHSO<sub>4</sub> 7-Other 8-4°C 9-5035

Cooler ID: 91149 Cooler Temp.: 1.8 QC Package: (Check One Box Below)  Level II Std QC  TRRP Checklist  Level III Std QC/Raw Date  TRRP Level IV  Level IV SW846/CLP  Other

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
3. The Chain of Custody is a legal document. All information must be completed accurately.

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 <b>ALS</b> 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		AL	Seal Broken By: SM
	Date: 06/23/23	Time:	4:55	Date: 06/24/23
	Name: TRUDY RODRIGUEZ	Company: ARCADIS		

57149 JUN 24 2023



57149

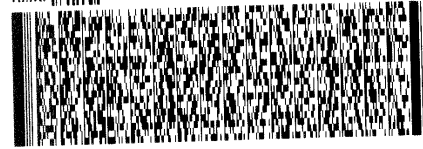
ORIGIN ID:SGRA (432) 217-2140  
 TRUDY RODRIGUEZ  
 ARCADIS  
 1004 NORTH BIG SPRINGS  
 SUITE 121  
 MIDLAND, TX 79701  
 UNITED STATES US

SHIP DATE: 13JUN23  
 ACTWGT: 1.00 LB MAN  
 CAD: 0221247/CAFES3707  
 DIMS: 26x14x14 IN

TO SHIPPING DEPT  
 ALS LABORATORY GROUP  
 10450 STANCLIFF RD  
 SUITE 210  
 HOUSTON TX 77099

(281) 530-5666  
 REF: 111293000 INDIAN BASIN = BO 93652 - JG

RMA: ||| ||| |||



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 0221

SATURDAY 12:00P  
 PRIORITY OVERNIGHT

XO SGRA

77099  
 TX-US IAF



# APPENDIX D

## Laboratory Data Validation Report



# Data Verification Report

July 21, 2023

<b>To</b>	Hugh Robotham (hugh.robotham@arcadis.com)	<b>Project No.</b>	11129300
<b>Copy to</b>	Trudy Rodriquez (trudy.rodriquez@arcadis.com)	<b>Email</b>	kristen.anders@ghd.com
<b>From</b>	Kristen Anders/eew/4	<b>Contact No.</b>	720-245-2750
<b>Subject</b>	Analytical Results and Data Verification Annual Groundwater Monitoring Glenn Springs Holdings, Inc. - Indian Basin Indian Basin, New Mexico June 2023		

*The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.*

## 1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Annual Groundwater Monitoring at the Indian Basin site during June 2023. Samples were submitted to ALS Environmental located in Houston, TX and are reported in data package HS23061744. A sample collection and analysis summary are 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 form, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS), 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 documents entitled:

1. "National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA) 540-R-20-005, November 2020.
2. "National Functional Guidelines for Inorganic Superfund Methods Data Review", USEPA 542-R-20-006, November 2020.

Items 1. and 2. will subsequently be referred to as the "Guidelines" in this report.

## 2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, 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 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

## 4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the method employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

## 5. Laboratory Control Sample Analyses

LCS or 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 or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

### Organic Analyses

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

## **Inorganic Analyses**

The LCS or LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines" using the laboratory control limits. All LCS recoveries and RPDs, where applicable, were within the control limits, demonstrating acceptable analytical accuracy and precision.

## **6. 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 relative percent difference (RPD) between the MS and MSD is used to assess analytical precision.

The laboratory performed site-specific MS/MSD analyses internally for chloride analysis.

The MS/MSD samples were spiked with the analyte of interest, and the results were evaluated per the "Guidelines" using the laboratory control limits. All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

## **7. Duplicate Sample Analyses**

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed internally by the laboratory for total dissolved solids (TDS). The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed met the above criteria demonstrating acceptable analytical precision.

## **8. Field QA/QC Samples**

The field QA/QC consisted of 1 trip blank sample and 1 field duplicate sample set.

### **Trip Blank Sample Analysis**

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

### **Field Duplicate Sample Analysis**

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with the duplicate sample must be less than 50 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 time the RL value for water samples.

All field duplicate results met the above criteria, demonstrating acceptable sampling and analytical precision.

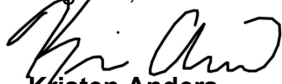
## 9. Analyte Reporting

The laboratory reported detected results down to the laboratory's sample-specific method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the sample-specific MDL were qualified as estimated (J) in Table 2. Non-detect results were presented as non-detect at the RL in Table 2.

## 10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Regards,



**Kristen Anders**

Digital Intelligence - Data Management - Data Validator

Table 1

**Sample Collection and Analysis Summary  
Annual Groundwater Monitoring  
Glenn Springs Holdings, Inc. - Indian Basin  
Indian Basin, New Mexico  
June 2023**

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters			Comments
					VOC	Anions	TDS	
MW-70	MW-70	Groundwater	06/22/2023	9:18	X	X	X	
MW-111	MW-111	Groundwater	06/22/2023	10:38	X	X	X	
MW-66	MW-66	Groundwater	06/22/2023	11:29	X	X	X	
MW-88	MW-88	Groundwater	06/22/2023	12:48	X	X	X	
Dup-1	MW-88	Groundwater	06/22/2023	--	X	X	X	FD(MW-88)
MW-106	MW-106	Groundwater	06/22/2023	14:03	X	X	X	
MW-127	MW-127	Groundwater	06/22/2023	15:04	X	X	X	
MW-45	MW-45	Groundwater	06/22/2023	16:07	X	X	X	
MW-49	MW-49	Groundwater	06/22/2023	16:49	X	X	X	
11129300-TB-	--	Water Quality Control Matrix	06/22/2023	--	X			Trip Blank

Notes:

- DUP - Laboratory Duplicate
- FD - Field Duplicate sample of sample in parenthesis
- VOC - Volatile Organic Compounds
- TDS - Total Dissolved Solids
- "--" - Not applicable

**Table 2**  
**Analytical Results Summary**  
**Annual Groundwater Monitoring**  
**Glenn Springs Holdings, Inc. - Indian Basin**  
**Indian Basin, New Mexico**  
**June 2023**

<b>Location ID:</b>	<b>MW-45</b>	<b>MW-49</b>	<b>MW-66</b>	<b>MW-70</b>	<b>MW-88</b>	<b>MW-88</b>	<b>MW-106</b>	<b>MW-111</b>	<b>MW-127</b>	<b>TRIP BLANK</b>
<b>Sample Name:</b>	<b>MW-45</b>	<b>MW-49</b>	<b>MW-66</b>	<b>MW-70</b>	<b>MW-88</b>	<b>Dup-1</b>	<b>MW-106</b>	<b>MW-111</b>	<b>MW-127</b>	<b>11129300-TB-</b>
<b>Sample Date:</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>	<b>06/22/2023</b>
						<b>Duplicate</b>				

<b>Parameters</b>	<b>Unit</b>										
<b>Volatile Organic Compounds</b>											
Benzene	µg/L	1.0 U	0.60 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>General Chemistry</b>											
Chloride	mg/L	266	317	8.93	10.1	26.9	26.8	4.04	29.4	35.2	--
Total dissolved solids (TDS)	mg/L	5380	3940	604	14.0	620	680	230	1120	324	--

Notes:  
 U - Not detected at the associated reporting limit  
 J - Estimated concentration  
 "--" - Not analyzed

**Table 3**

**Analytical Methods**  
**Annual Groundwater Monitoring**  
**Glenn Springs Holdings, Inc. - Indian Basin**  
**Indian Basin, New Mexico**  
**June 2023**

<b>Parameter</b>	<b>Method</b>	<b>Matrix</b>	<b>Holding Time Collection to Analysis (Days)</b>
Total Dissolved Solids (TDS)	SM 2540C	Groundwater	7
Anions	EPA 300.0	Groundwater	28
Volatile Organic Compounds (VOCs)	SW-846 8260C	Groundwater	14

Method References:

- SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
- EPA - Environmental Protection Agency
- SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

# APPENDIX E

## NMOCD Correspondence





# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



February 20, 2009

M. Paul Peacock  
Marathon Oil Company  
P.O. Box 3128  
Houston, TX 77253-3128

**RE: Indian Basin Remediation Project Report and Proposed Well Plugging Request  
for the Marathon's Indian Basin Gas Plant (GW-21)  
Eddy County, New Mexico**

Dear Mr. Peacock:

The New Mexico Oil Conservation Division (OCD) has reviewed Marathon's report, Evaluation of Natural Attenuation, Indian Basin Remediation Project [IBRP], Eddy County, New Mexico, dated May 12, 2008, and Proposed IBRP Well Plugging Program [Request], dated February 5, 2009. The report and request are substantially acceptable to the OCD. Therefore, the OCD hereby conditionally approves the discontinuance of active remediation at the above-referenced site.

However, at least annual groundwater monitoring for BTEX, TDS and chloride at the 13 proposed wells as specified in the Well Plugging Request plus at an additional two groundwater monitoring wells, MW-81 and MW-113, for a total of 15 wells must continue unless otherwise approved by the OCD. Also, at least semi-annually gauging of depth to groundwater and non-aqueous phase liquid thickness at these 15 wells must continue unless otherwise approved by the OCD. Marathon must continue to submit an annual groundwater monitoring report to the OCD unless otherwise approved by the OCD.

In addition, the material used to plug the 98 (the 100 proposed minus the 2 rejected) groundwater monitoring wells as specified in the Request must be a cement grout with 1% to 3% bentonite. Please submit to the OCD a final plugging report within 180 days of receipt of this letter.

---

Oil Conservation Division \* 1220 South St. Francis Drive  
\* Santa Fe, New Mexico 87505  
\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>

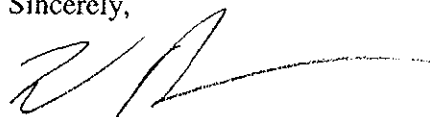


M. Paul Peacock  
GW-21  
February 20, 2009  
Page 2

Please be advised that OCD approval of this report and request does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Edward Hansen of my staff at 505-476-3489 or [edwardj.hansen@state.nm.us](mailto:edwardj.hansen@state.nm.us).

Sincerely,



Wayne Price  
Environmental Bureau Chief

WP:EJH:ejh

cc: OCD; Artesia District Office  
Terry Persaud, P.E., Marathon Oil Company, P.O. Box 3128, Houston, TX 77253-3128

---

**From:** Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]  
**Sent:** Wednesday, June 17, 2009 12:42 PM  
**To:** Persaud, Terry  
**Cc:** Caudill, Ted L.; Kurki, Vijay K.; Newman, Dennis (Houston); alan.reed@arcadis-us.com; Lowe, Leonard, EMNRD  
**Subject:** GW-21 Plugging Report Approval

**RE: "Indian Basin Remediation Project Monitoring Well Plugging Report"  
for the Marathon's (now OXY's)  
Indian Basin Gas Plant (GW-21)  
Unit Letter G, Section 23, T21S, R23E, NMPM, Eddy County, New Mexico  
Plugging Report Approval**

Dear Mr. Persaud:

The New Mexico Oil Conservation Division (OCD) has received the groundwater monitoring well plugging report for the Indian Basin Gas Plant (GW-21), dated June 11, 2009, and has conducted a review of the report. The plugging report, submitted for the above-referenced site, indicates that Marathon has met the plugging requirements. Therefore, the OCD hereby approves the plugging report. However, the OCD is anticipating the 2009 annual groundwater monitoring report for the remaining 15 monitoring wells this month.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

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

CONDITIONS

Action 592021

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 592021
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
owen.sitler	2023 Annual Groundwater Monitoring Report submission	6/4/2026