Armando Martinez
Operations Lead, Portfolio Operations Central

REVIEWED
By Mike Buchanan at 11:31 am, Jun 20, 2024

Review of the Cooper Jal 2023 Annual Groundwater Monitoring Report: Content Satisfactory
1. Continue to conduct groundwater monitoring at the site on a semi-annual basis, following th SAP approved by NMOCD.
2. Proceed with further evaluation as needed for analyses results for MW-4, MW-5, MW-5A, MW-14, RW-2
3. Provide findings from evaluations and recommendations for path forward in the 2024 annual report.
4. Submit the 2024 Annual Groundwater Monitoring Report by April 1, 2025.

VIA ELECTRONIC MAIL

March 25, 2024

New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 88240

Re: Cooper Jal
2023 Annual Groundwater Monitoring Report
Incident ID: nAUTOfAB000105
Lea County, New Mexico

Dear whom it concerns,

Please find enclosed for your filed, copies of the following:

- Cooper Jal – 2023 Annual Groundwater Monitoring Report

The 2023 Annual Groundwater Monitoring Report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC).

Please do not hesitate to call Russell Grant with Arcadis at 432.217.2064 or myself at 575.586.7639, should you have any questions.

Sincerely,

Armando Martinez

Encl. Cooper Jal 2023 Annual Groundwater Monitoring Report

cc. Amy Barnhill, Chevron/MCBU

Armando Martinez
Operations Lead Central
Portfolio Operations - Central
354 State Highway 38, Questa, NM 87556-0469
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ARCADIS

Chevron Environmental Management Company

2023 Annual Groundwater Monitoring Report

Cooper-Jal Unit South Injection Station

Section 24, Township 24 South, Range 36 East

Lea County, New Mexico

OGRID No. 4323
Case No. 1R289

2023 ANNUAL GROUNDWATER MONITORING REPORT

Cooper Jal

Russell Grant
Certified Project Manager

Prepared for:
Armando Martinez
Project Manager
Chevron Environmental Management Company
354 State Highway 38
Questa, New Mexico 87556-0469

Prepared by:
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Our Ref.:
30183400

Date:
March 18, 2024

Sheila Hernandez
Task Manager

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Appendices

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this report for Chevron Environmental Management Company (CEMC), which summarizes semi-annual groundwater monitoring activities conducted in 2023 at the Cooper-Jal Unit South Injection Station (Site). Data presented in this report was collected during semi-annual groundwater monitoring events conducted in July 2023 and November 2023.

The Site is located on Lea County Road J7, approximately five and a half miles northwest of Jal, New Mexico, in Section 24, Township 24 South, Range 36 East, Lea County, New Mexico in the Bureau of Land Management (BLM). The latitude and longitude coordinates of the Site are 32° 12' 7.13" N and 103° 13' 4.36" W.

Land in the vicinity of the Site is utilized primarily for livestock ranching and oil and gas production and has areas of undeveloped rangeland vegetated with indigenous grass. An injection well facility, operated by Resaca Resources, LLC (Resaca), is located adjacent to the Site. No active Chevron U.S.A. Inc. (Chevron) operations are present in the area. A Site Location Map is presented as **Figure 1**. Additional Site background information is in **Appendix A**.

2 Groundwater Monitoring Results

Groundwater at the Site is monitored semi-annually from a network of 18 monitoring wells and 2 recovery wells. A Site Details Map is presented as **Figure 2**. Arcadis performed semi-annual groundwater sampling events on July 20-21, 2023, and November 13-14, 2023. During each sampling event, all Site wells are gauged to determine depth to water and depth to non-aqueous phase liquid (LNAPL), if present. Additionally, conductivity readings are collected through the water column at two-foot intervals at each Site well annually, in conjunction with the first semi-annual sampling event. Per the Cooper Jal Reduced Sampling Work Plan submitted to the NMOCD on July 20, 2020, the July 2023 monitoring event consisted of water level measurements and samples collected from all twenty on-Site wells. Additionally, in accordance with the Cooper Jal Reduction Sampling Work Plan, water level measurements were collected at all twenty Site wells and samples were collected from eleven wells during the November 2023 monitoring event. Field monitoring methodologies are in **Appendix B**.

2.1 Groundwater Gauging Data

Groundwater and light non-aqueous phase liquid (LNAPL) measurements collected during the semi-annual monitoring events conducted in 2023 indicate:

- Groundwater elevations ranged from:
  - 3,181.51 feet above mean sea level (ft AMSL) (MW-11) to 3,190.52 ft AMSL (MW-12) during the July 2023 event, and
  - 3,181.67 ft ABMSL (MW-11) to 3,190.71 ft AMSL (MW-12) during the November 2023 event.
- The groundwater elevations during both semi-annual sampling events in 2023 were consistent with historical levels, with groundwater flow generally to the southeast.
- Potentiometric elevation data for the sampling events are presented in **Table 1**. Groundwater potentiometric surface maps for July 2023 and November 2023 are presented on **Figure 3**.
- The calculated gradient was:

  - 0.0026 feet/foot (ft/ft) for the July 2023 gauging event and 0.0026 ft/ft for the November 2023 gauging event.
- LNAPL was not detected in any Site wells during either the July 2023 or the November 2023 monitoring events.

2.2 Groundwater Analytical Results

All 20 wells were sampled at the Site during the July 2023 sampling event. The November groundwater monitoring event was reduced to sampling 11 of 20 Site wells, as detailed in the Cooper Jal Sample Reduction Work Plan submitted to the NMOCD on July 20, 2020, presented in **Table 2**. On February 13, 2023, the proposed reduction plan was approved with an additional request to collect annual sulfate analysis from two Site wells (MW-4A and RW-2R). The sulfate collection is scheduled annually in conjunction with the first semi-annual sampling event. Samples were sent to Pace analytical to be analyzed for:

- Chloride by EPA method 300.0,
- Sulfate by EPA method 300.0 and,
- Total Dissolved Solids by EPA 2540C

Groundwater analytical results for chloride, total dissolved solids (TDS), and sulfate were compared to the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards. A summary of the groundwater sample analytical results is presented in **Table 3**.

Cumulative summary tables of groundwater analytical results and potentiometric elevation data obtained for the Site from 1998 through 2023 are presented in **Appendixes C** and **D**, respectively. Copies of the certified analytical reports and chain-of-custody documentation from Pace Laboratories are provided in **Appendix E**.

Isoconcentration maps for chloride for the July 2023 and November 2023 sampling events are presented on **Figure 4**. The isoconcentration maps for TDS for the July 2023 and November 2023 sampling events are presented on **Figure 5**. The isoconentration map for sulfate for the July 2023 sampling event is presented on **Figure 6**. The groundwater analytical results are further summarized below.

2.2.1 Chloride

- Chloride concentrations detected during the July 2023 groundwater sampling event exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in 12 of the 20 wells sampled (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-9A, MW-10, MW-12, RW-1, RW-2, and RW-2R).

Chloride concentrations exceeding the NMWQCC standard of 250 mg/L ranged from 260 mg/L at monitoring well MW-9A to 13,300 mg/L at monitoring well MW-4.

- Chloride concentrations detected during the November 2023 groundwater sampling event exceeded the NMWQCC standard of 250 mg/L in 10 of the 11 wells sampled (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

Chloride concentrations exceeding the NMWQCC standard of 250 mg/L ranged from 364 mg/L at monitoring well MW-10 to 13,700 mg/L at monitoring well MW-4.

2.2.2 TDS

- TDS concentrations detected during the July 2023 groundwater sampling event exceeded the NMWQCC standard of 1,000 mg/L in 11 of the 20 wells sampled (MW-1, MW-4, MW-4A, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

TDS concentrations exceeding the NMWQCC standard of 1,000 mg/L ranged from 1,210 mg/L (MW-10) to 19,800 mg/L (MW-4).

- TDS concentrations detected during the November 2023 groundwater sampling event exceeded the NMWQCC standard of 1,000 mg/L in 10 of the 11 wells sampled (MW-1, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R).

TDS concentrations exceeding the NMWQCC standard of 1,000 ranged from 1,180 mg/L (MW-10) to 23,800 mg/L (MW-4).

2.2.3 Sulfate

- Sulfate concentrations were analyzed for in 2 wells (MW-4A and RW-2R) out of the 20 wells during the July 2023 groundwater sampling event. Sulfate concentrations detected during the July 2023 groundwater sampling event exceeded the NMWQCC standard of 600 mg/L in 1 of the 2 wells sampled (RW-2R).

The sulfate concentration exceeding the NMWQCC standard of 600 mg/L was 904 mg/L for the recovery well RW-2R.

Sulfate concentrations were not analyzed during the November 2023 groundwater sampling event.

3 Summary

In summary, the semi-annual monitoring activities conducted at the Site in July 2023 and November 2023 indicate the following:

- All 20 Site wells were gauged during the July 2023 and November 2023 events;
- Groundwater elevations at the Site have remained consistent over the last 10 years;
- All 20 Site wells were sampled during the July 2023 event, and 11 Site wells were sampled during the November 2023 event;
- Potentiometric surface conditions were consistent with historical results showing groundwater flow to the southeast towards monitoring well MW-11.

Groundwater sample analytical results reported for the July 2023 and November 2023 sampling events indicate:

- Chloride exceeded the NMWQCC standard in 12 Site wells sampled during the July 2023 event, and 10 Site wells sampled during the November 2023 event.

  Chloride exhibited:
  - Stable concentration trends in 6 Site wells which exceeded the NMWQCC groundwater standard of 250 mg/L (MW-1, MW-4A, MW-9, MW-9A, MW-10, and MW-12).
  - Decreasing concentration trends were identified in 2 Site wells which exceeded the NMWQCC groundwater standard of 250 mg/L (MW-2 and RW-1).

- Increasing concentration trends were identified in 2 Site wells which exceeded the NMWQCC groundwater standard of 250 mg/L (MW-7 and RW-2R).
- Anomalies detailed below were identified in some of the Site wells that are not representative of the historical trends on Site:
  - Chloride concentrations at wells MW-4, MW-5, and RW-2 during the August 2022 sampling event were reported below the NMWQCC groundwater standard of 250 mg/L. Historical data for MW-4, MW-5, and RW-2 have consistently exceeded the NMWQCC groundwater standard of 250 mg/L. During the December 2022, July 2023, and November 2023 sampling events, chloride concentration analytical data at MW-4, MW-5, and RW-2 indicated concentrations that aligned with historical trends observed at these wells.
  - Well MW-5A has historically not exceeded NMWQCC groundwater standard of 250 mg/L, however during the August 2022 sampling event, analytical data indicated a chloride exceedance increase of 15,000 mg/L. Analytical data from July 2023 indicated chloride concentration of 146 mg/L. This data aligns with historical trends observed at well MW-5A. MW-5A was not sampled during the November 2023 sampling event as per the 2023 SAP due to its stable trend.

Historical chloride analytical data from upgradient wells (MW-1, MW-2, MW-2A, MW-3, MW-4, MW-4A, MW-5, MW-5A, MW-6R and RW-1) do not indicate trends suggesting the migration of chloride from upgradient wells on Site to downgradient well MW-11.

- TDS concentrations exceeded the NMWQCC standard of 1,000 mg/L in 11 wells sampled during the July 2023 event, and 10 monitoring wells sampled during the November 2023 event.

TDS exhibited:

- Stable concentration trends were observed in 3 Site wells which exceeded the NMWQCC groundwater standard of 1,000 mg/L (MW-2, MW-10, and RW-1).
- Increasing concentration trends were identified in 7 Site wells which exceeded the NMWQCC groundwater standard of 1,000 mg/L (MW-1, MW-4A, MW-7, MW-9, MW-12, RW-2, and RW-2R).
- Anomalies observed in Site well TDS analytical data that are not representative of the historical trends on Site are as follows:
  - Wells MW-4, MW-5, and RW-2 have historically exceeded the NMWQCC groundwater standard of 1,000 mg/L. During the August 2022 sampling event, analytical data indicated a decrease of TDS concentrations below the NMWQCC groundwater standard for TDS at MW-4, MW-5, and RW-2. Analytical data from the December 2022, July 2023, and November 2023 sampling events indicate TDS concentrations that align with historical trends observed at wells MW-4, MW-5, and RW-2.
  - Wells MW-5A and MW-14 have historically not exceeded the NMWQCC groundwater standard of 1,000 mg/L. However, during the August 2022 sampling event, analytical data indicated a TDS exceedance increase of 18,500 mg/L and 1,090 mg/L respectively. During the July 2023 groundwater monitoring event, TDS concentrations were reported at 552 mg/L and 471 mg/L respectively. This data aligns with historical trends observed at wells MW-5A and MW-14. MW-5A and MW-14 were not sampled during the November 2023 sampling event as per the 2023 SAP due to their stable trends.

Increasing TDS trends observed from upgradient wells (MW-1, MW-4, MW-4A, MW-7, MW-9, RW-2, and RW-2R) could indicate trends suggesting the migration of TDS from upgradient wells on Site to MW-11. Additionally, increasing TDS trends observed in upgradient well, MW-12, could indicate a potential outside source contributing to the increase in TDS concentrations. While the causes of increasing TDS concentrations are unclear, further data is required to determine whether it is being contributed by plume migration, an external source, or both.

Arcadis recommended further evaluation of groundwater analytical results of MW-4, MW-5, MW-5A, MW-14, and RW-2 due to the anomalies found in the August 2022 analytical results. The analytical results of MW-4, MW-5, MW-5A, MW-14, and MW-2 Site wells during the July 2023 event indicates that the data aligns with the historical trends.

Arcadis recommends the continuation of semi-annual groundwater monitoring and sampling on-Site in 2024, following the 2023 SAP that was approved by NMCOD in a letter dated February 13, 2023.

Tables

Table 1
2023 Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Well ID	TOC Elevation	Well Diameter (in)	Well Screen Interval (ft bgs[2])	Collection Date	Total Depth (ft below TOC)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft)
MW-1	*3321.94*	**2**	153-173	07/20/23	169.98	134.52	3187.42
				11/13/23	169.81	134.45	3187.49
MW-2	*3321.27*	**2**	163-173	07/20/23	170.45	134.20	3187.07
				11/13/23	169.02	134.11	3187.16
MW-2A	*3321.30*	**2**	130-145	07/20/23	142.15	134.25	3187.05
				11/13/23	142.15	134.19	3187.11
MW-3	*3320.08*	**2**	161-171	07/21/23	171.98	132.21	3187.87
				11/13/23	171.80	132.07	3188.01
MW-4	*3321.58*	**2**	161-171	07/20/23	171.81	135.24	3186.34
				11/13/23	171.53	135.10	3186.48
MW-4A	*3321.42*	**2**	128-143	07/20/23	145.64	135.06	3186.36
				11/13/23	145.65	134.98	3186.44
MW-5	*3322.98*	**2**	161-171	07/20/23	173.89	136.56	3186.42
				11/13/23	173.52	136.45	3186.53
MW-5A	*3321.07*	**2**	126-141	07/20/23	144.02	136.66	3184.41
				11/13/23	144.06	136.52	3184.55
MW-6	*3321.15*	**--**	--	Well Plugged and Abandoned on 9/30/2013			
MW-6R	*3323.04*	**4**	136-176	07/20/23	179.01	136.07	3186.97
				11/13/23	179.09	135.97	3187.07
MW-7	*3320.19*	**2**	151-166	07/20/23	163.44	135.50	3184.69
				11/13/23	163.20	135.37	3184.82
MW-8	*3319.06*	**2**	155-170	07/20/23	146.91	133.81	3185.25
				11/13/23	146.94	133.72	3185.34
MW-9	*3314.68*	**2**	149-164	07/20/23	161.17	131.90	3182.78
				11/13/23	161.27	131.76	3182.92
MW-9A	*3314.48*	**2**	127-142	07/20/23	142.10	131.60	3182.88
				11/13/23	142.13	131.50	3182.98
MW-10	*3321.12*	**2**	151-166	07/20/23	160.79	136.31	3184.81
				11/13/23	160.97	136.22	3184.90
MW-11	*3311.56*	**4**	125-140	07/21/23	166.98	130.05	3181.51
				11/13/23	167.02	129.89	3181.67
MW-12*	*3330.33*	**4**	157-172	07/21/23	171.00	139.81	3190.52
				11/13/23	172.07	139.62	3190.71
MW-13*	*3338.49*	**--**	--	Well Plugged and Abandoned on 7/11/2017			
MW-14	*3318.36*	**4**	131-171	07/20/23	174.49	134.33	3184.03
				11/13/23	174.51	134.40	3183.96
RW-1	*3320.31*	**5**	130-175	07/20/23	165.46	133.71	3186.60
				11/13/23	162.15	133.64	3186.67
RW-2	*3320.42*	**5**	135-160	07/20/23	156.26	135.20	3185.22
				11/13/23	156.01	135.08	3185.34
RW-2R	*3320.68*	**6**	133-173	07/20/23	180.85	136.83	3183.85
				11/13/23	178.66	137.67	3183.01

Notes:

1. TOC - Top of Casing
2. MSL - Mean Sea Level
3. ft bgs - feet below ground surface
4. in - inches
5. A - Indicates groundwater monitor well installed in shallow Uppermost Groundwater Bearing Unit.
6. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.
7. -- - Not Available/ Not Applicable

Table 2
2023 Groundwater Sampling and Analysis Plan
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS Design & Consultancy for natural and built assets

First Semi-Annual Monitoring Event						Second Semi-Annual Monitoring Event					
Monitoring Well ID	Gauge Depth to Groundwater and Total Depth	Collect Conductivity Level every two (2) feet	Total Dissolved Solids by State Method 2540C	Inorganic Anions by USEPA Method 300		Gauge Depth to Groundwater and Total Depth	Collect Conductivity Level every two (2) feet	Total Dissolved Solids by State Method 2540C	Inorganic Anions by USEPA Method 300		Rationale for Reduction
				Chloride	Sulfate				Chloride	Sulfate	
MW-1	X	X	X	X	--	X	--	X	X	--	
MW-2	X	X	X	X	--	X	--	X	X	--	
MW-2A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-3	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-4	X	X	X	X	--	X	--	X	X	--	
MW-4A	X	X	X	X	X	X	--	--	--	--	Stable Trend
MW-5	X	X	X	X	--	X	--	X	X	--	
MW-5A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-6R	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-7	X	X	X	X	--	X	--	X	X	--	
MW-8	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-9	X	X	X	X	--	X	--	X	X	--	
MW-9A	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-10	X	X	X	X	--	X	--	X	X	--	
MW-11	X	X	X	X	--	X	--	--	--	--	Stable Trend
MW-12	X	X	X	X	--	X	--	X	X	--	
MW-14	X	X	X	X	--	X	--	--	--	--	Stable Trend
RW-1	X	X	X	X	--	X	--	X	X	--	
RW-2	X	X	X	X	--	X	--	X	X	--	
RW-2R	X	X	X	X	X	X	--	X	X	--	

Notes:
USEPA = United States Environmental Protection Agency
X = Data will be collected at monitoring well during respective event.
-- = Data will not be collected at monitoring well during semi-annual event

Table 3
2023 Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

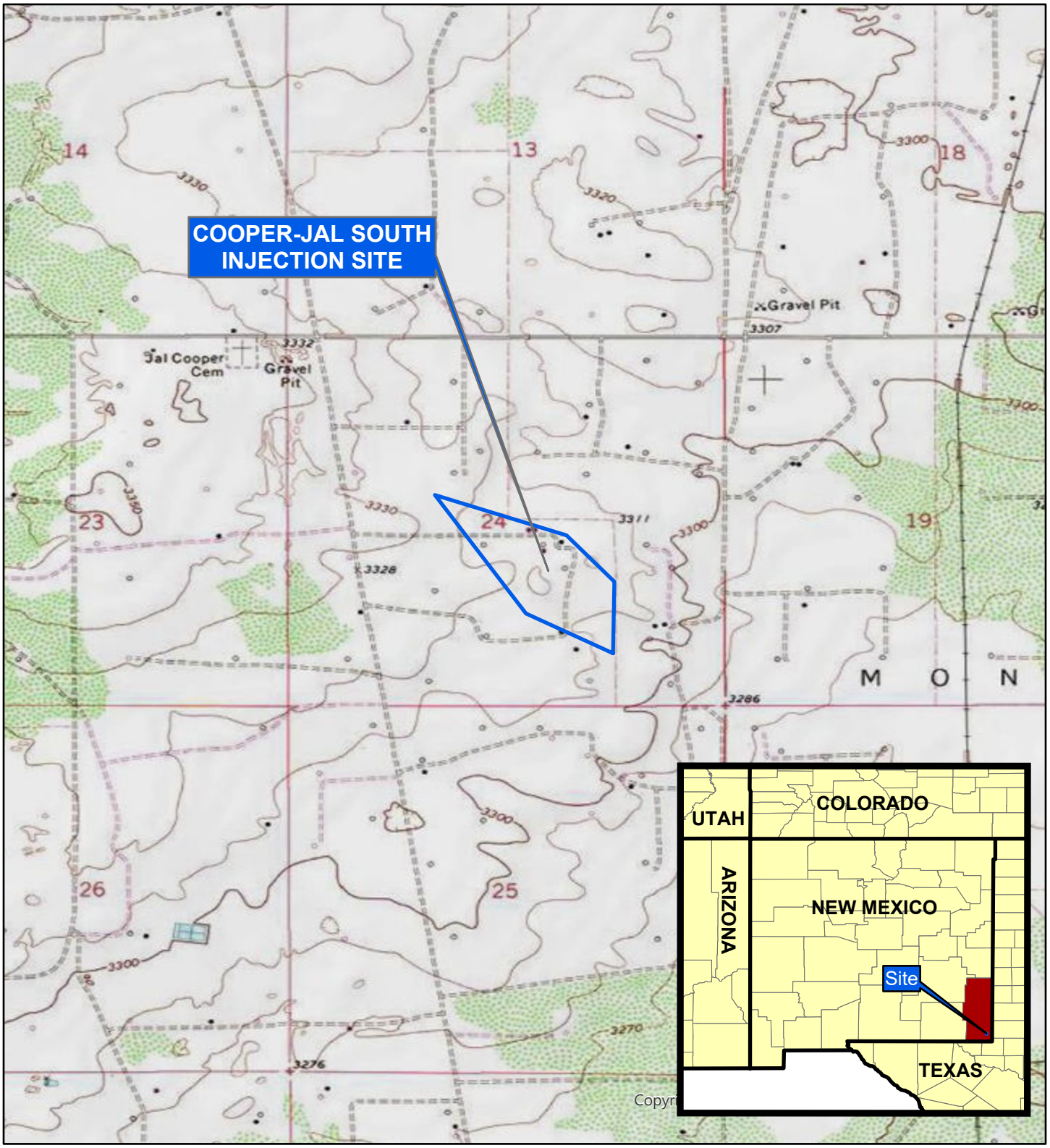
ARCADIS

Sample ID	Sample Date	Chloride	TDS	Sulfate
NMWQCC Groundwater Standard (mg/L)		250	1,000	600
MW-1	7/20/2023	***736***	***1,720***	NA
	11/13/2023	***857***	***1,840***	NA
MW-2	7/20/2023	137	437	NA
	11/13/2023	194	546	NA
MW-2A	7/20/2023	102	551	NA
	11/13/2023	--	--	--
MW-3	7/21/2023	41.7	430 B	NA
	11/13/2023	--	--	--
MW-4	7/20/2023	***13,300***	***19,800***	NA
	11/13/2023	***13,700***	***23,800***	NA
MW-4A	7/20/2023	***424***	***1,260***	101
	11/13/2023	--	--	--
MW-5	7/20/2023	***1,050***	***2,440***	NA
	11/13/2023	***991***	***2,420***	NA
MW-5A	7/20/2023	146	552	NA
	11/13/2023	--	--	--
MW-6R	7/20/2023	71.5	479	NA
	11/13/2023	--	--	--
MW-7	7/20/2023	***5,150***	***14,500***	NA
	11/14/2023	***5,350***	***11,600***	NA
MW-8	7/20/2023	36.9	432	NA
	11/13/2023	--	--	--
MW-9	7/21/2023	***1,050***	***2,620***	NA
	11/14/2023	***1,100***	***2,930***	NA
MW-9A	7/21/2023	***260***	753 B	NA
	11/13/2023	--	--	--
MW-10	7/20/2023	***364***	***1,210***	NA
	11/14/2023	***364***	***1,180***	NA
MW-11	7/21/2023	35.0	410 B	NA
	11/13/2023	--	--	--
MW-12*	7/21/2023	***469***	***1,300***	NA
	11/13/2023	***447***	***1,470***	NA
MW-14	7/20/2023	57.5	471	NA
	11/13/2023	--	--	--
RW-1	7/20/2023	***3,440***	***2,790***	NA
	11/13/2023	***2,160***	***6,540***	NA
RW-1 Dup	7/20/2023	***4,340***	***3,190***	NA
	11/13/2023	***1,810***	***3,530***	NA
RW-2	7/20/2023	***2,910***	***4,950***	NA
	11/14/2023	***890***	***2,640***	NA
RW-2 Dup	7/20/2023	***2,840***	***4,310***	NA
RW-2R	7/20/2023	***8,290***	***17,100***	***904***
	11/14/2023	***8,300***	***13,500***	NA

Notes:

1. Bold and italiced cells indicate New Mexico Water Quality Control Commission (NMWQCC) standard exceedance.
2. NA/-- - Not Analysed
3. Results shown in milligrams/liter (mg/L).
5. < - Analyte not detected above quantitation limit
5. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.
6. TDS - Total Dissolved Solids
7. B - The same analyte is found in the associated blank
8. Monitoring wells MW-2A, MW-3, MW-4A, MW-5A, MW-6R, MW-8, MW-9A, MW-11, and MW-14 were excluded from sampling during the 2SA23 sampling event as they were not part of the 2023 SAP due to stable trends.

Figures



Legend

Site Boundary

Notes:
1. Datum: D_WGS_1984
2. Source: United States Geological Survey 7.5 Minute Quadrangle Map
3. Site Location: 32.19891, -103.21523

N

0 1,000 2,000 4,000 Feet

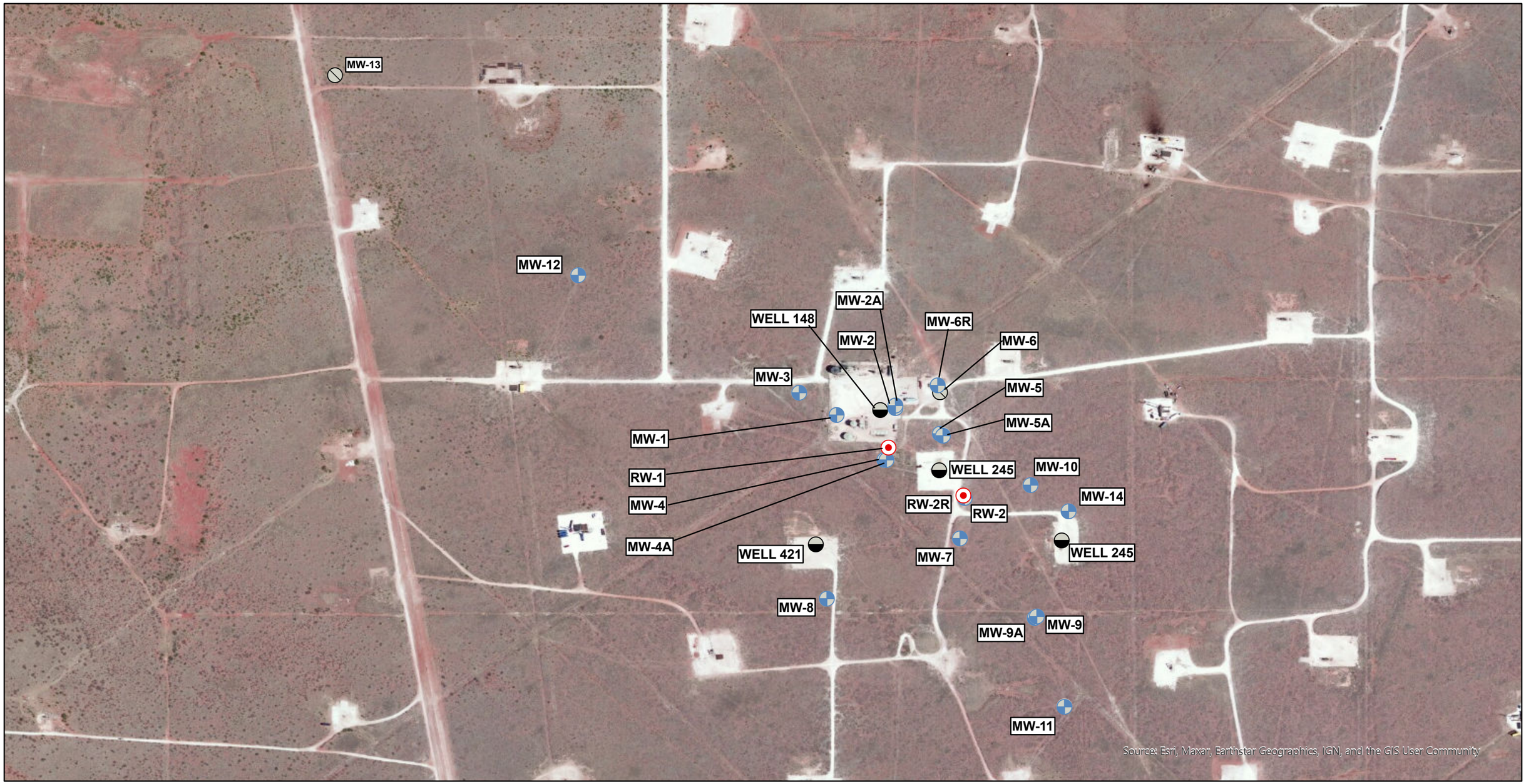
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

SITE LOCATION MAP

ARCADIS

FIGURE 1

Document Path: T:_ENV\Chevron\Cooper Jal\D-ProjectWorking_\MXD\2023\Chevron_CooperJal_July2023.aprx, User Name: ski01076



Legend

- Monitoring Well Location
- Recovery Well
- Cooper Jal Oil Well
- Plugged & Abandoned Monitoring Well

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not guaged
3. Site Location: 32.19891, -103.21523
4. MW-12 & MW-13 were installed off-site and upgradient of plume.

N

0 250 500 1,000 Feet

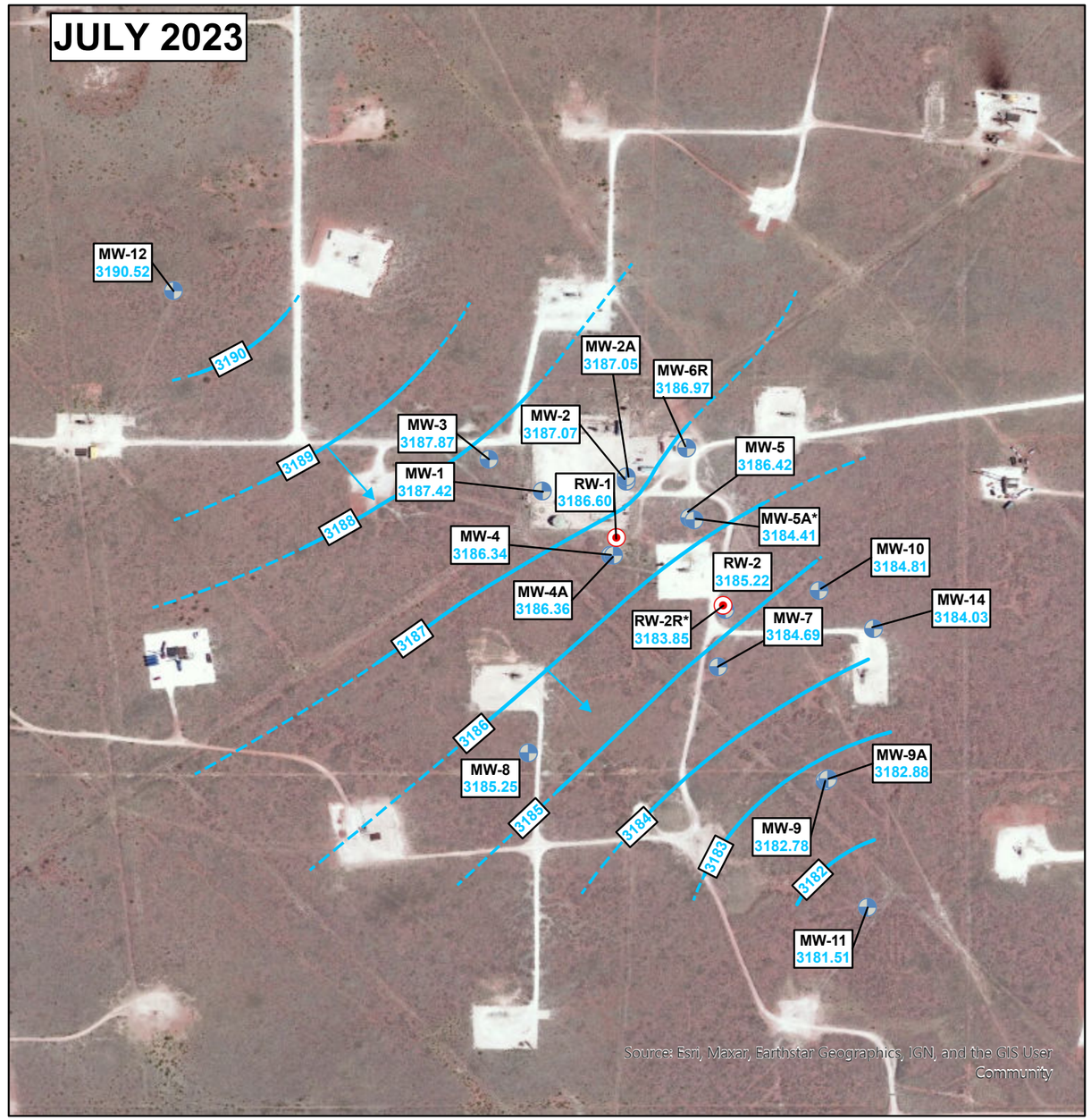
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

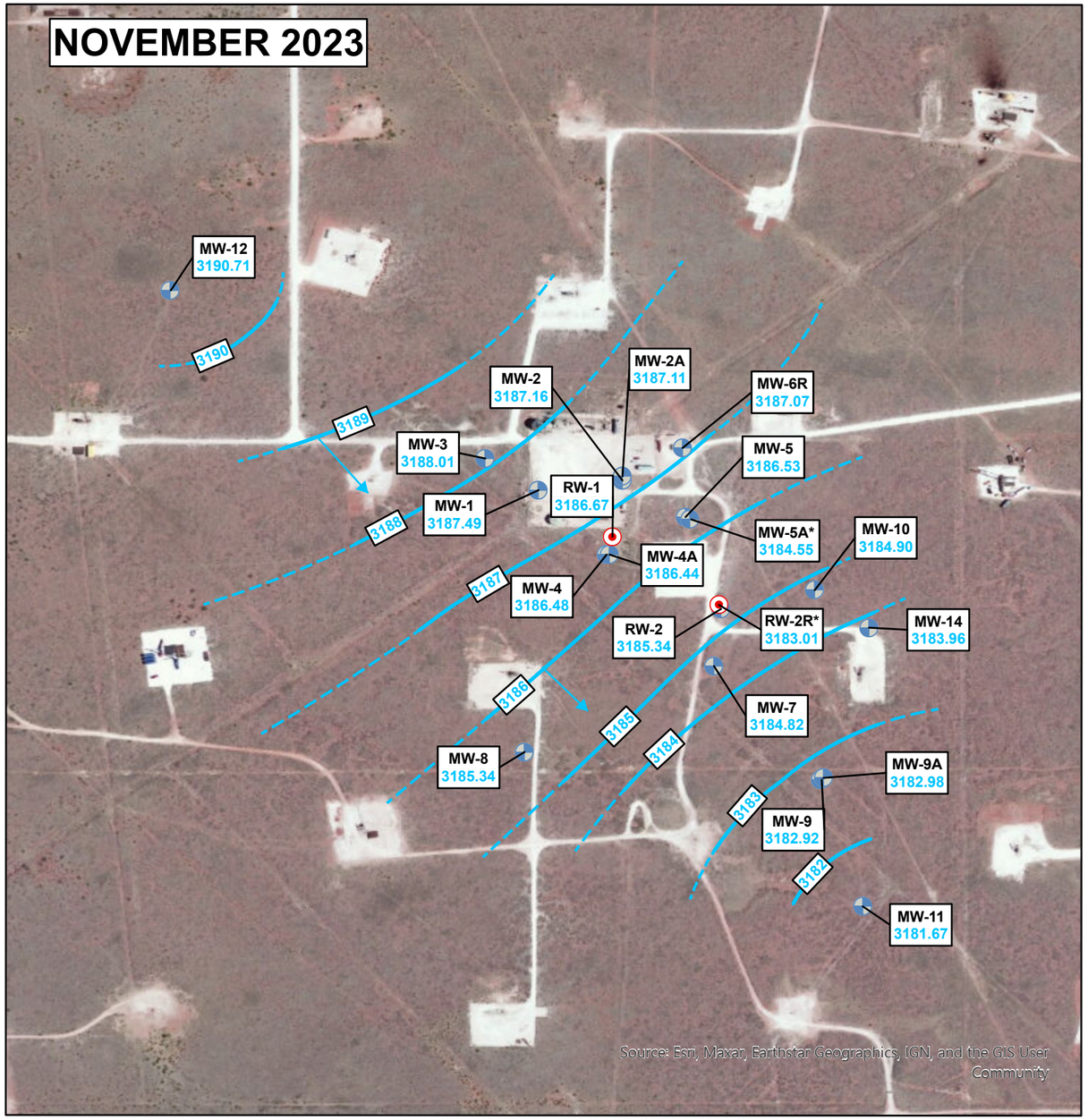
SITE DETAILS MAP

ARCADIS

FIGURE
2

Document Path: T:_ENV\Chevron\Cooper Jal\D-ProjectWorking_\MXD\2023\Chevron_CooperJal_July2023.aprx, User Name: ski01076





Legend

- Monitoring Well Location
- Recovery Well
- 3184 — Potentiometric Contour and Elevation (Dashed where Inferred)
- 3181.51 — Groundwater Elevation (ft above mean sea level)
- Approximate Groundwater Flow

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not guaged
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgradient of plume.
5. * - Groundwater elevation not used for contouring

N

0 250 500 1,000 Feet

Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

POTENTIOMETRIC SURFACE MAPS 2023

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FIGURE 3

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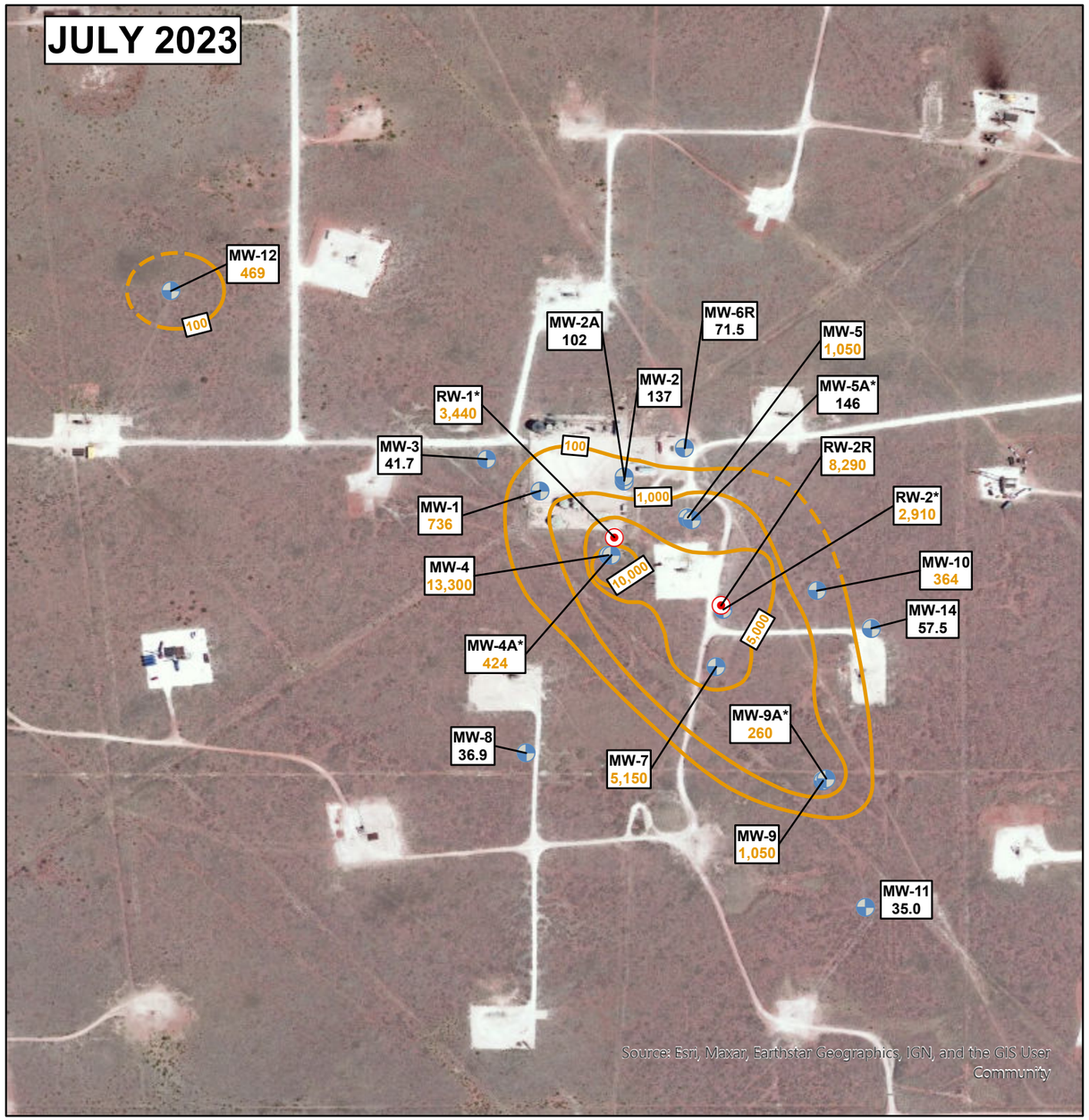
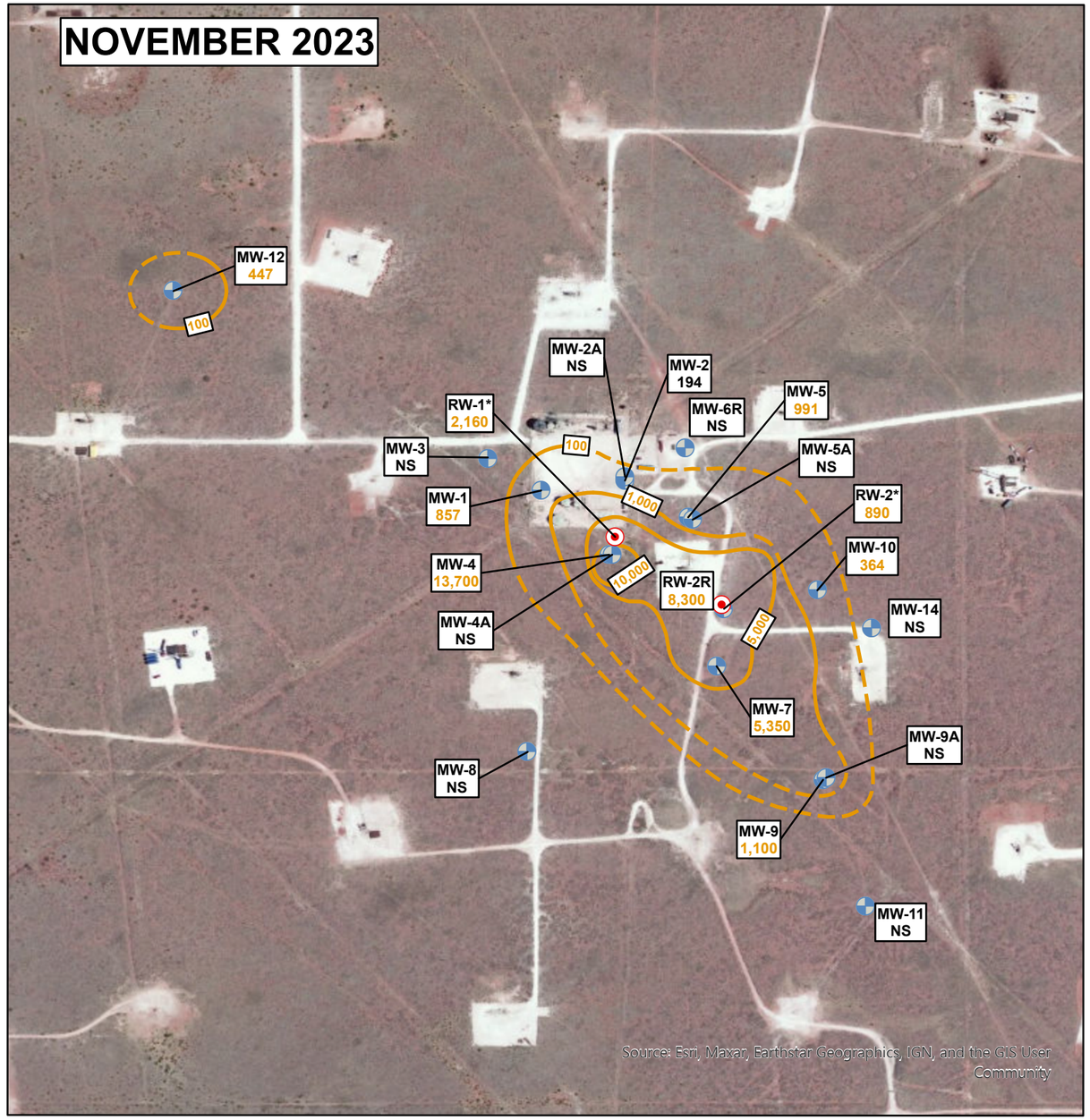




Legend

- Monitoring Well Location
- Recovery Well
- 100 — Chloride Isoconcentration Contour (Dashed where Inferred)
- 137 — Chloride Concentration in milligrams per liter (mg/L)
- 424 — Chloride Concentration (mg/L) Exceeds New Mexico Water Quality Control Commission Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not guaged
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgradient of plume.
5. *- Groundwater monitoring well not used for contouring
6. NS = Not Sampled.

N

0 250 500 1,000 Feet

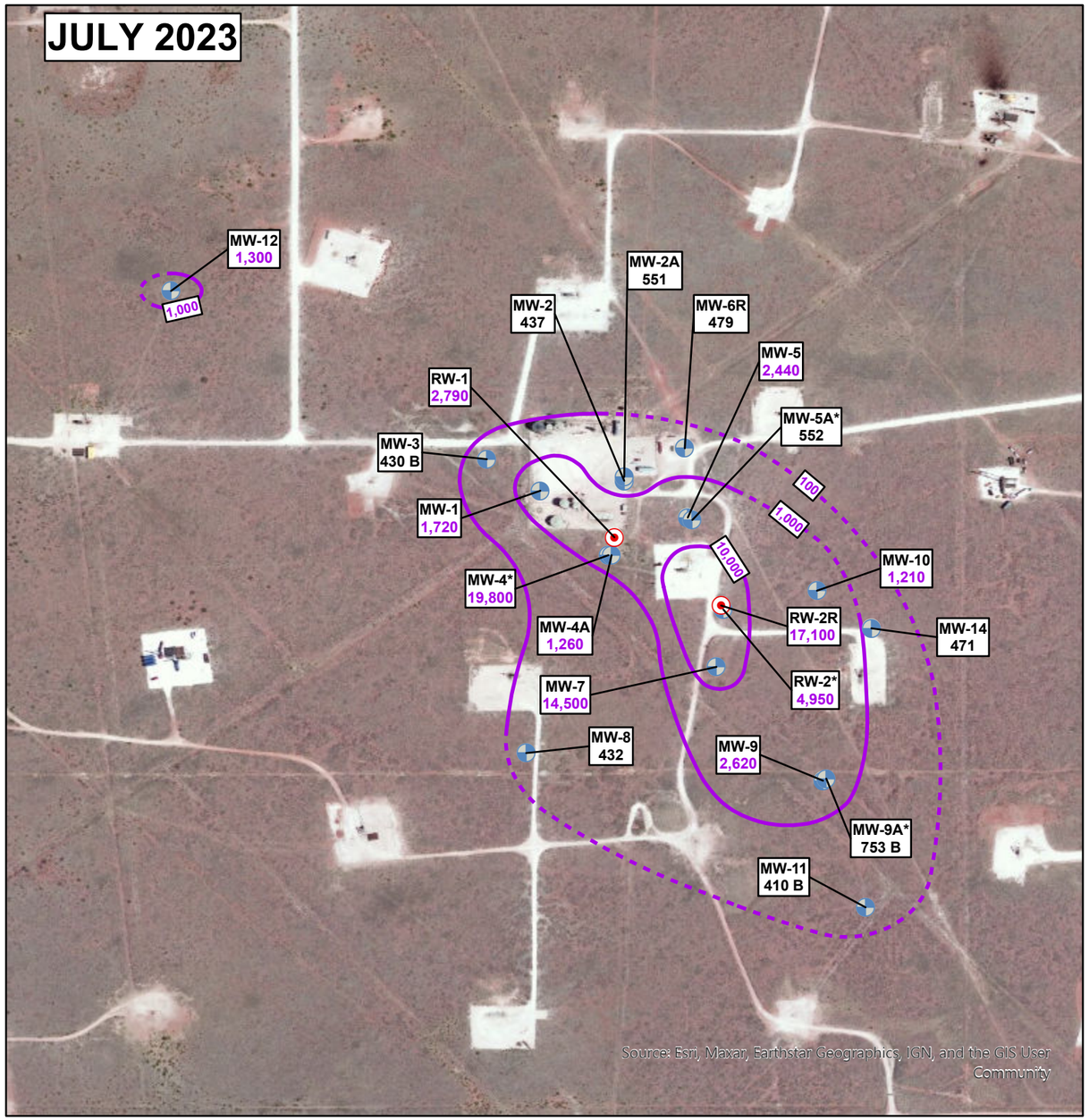
Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

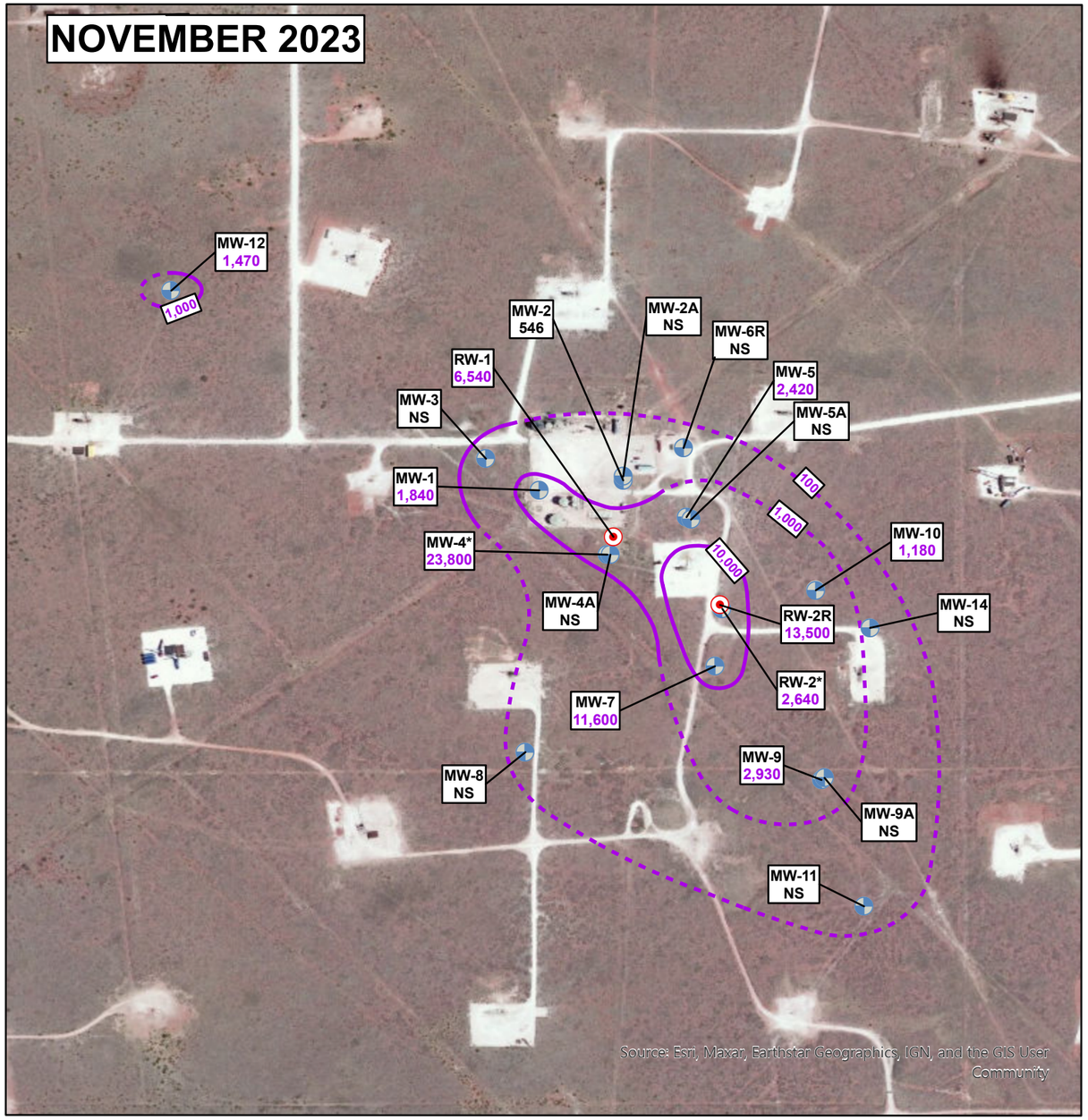
SEMI-ANNUAL CHLORIDE ISOCONCENTRATION MAPS 2023

ARCADIS

FIGURE 4

Document Path: T:_ENV\Chevron\Cooper Jal\D-ProjectWorking_\MXD\2023\Chevron_CooperJal_July2023.aprx, User Name: ski01076





Legend

- Monitoring Well Location
- Recovery Well
- 1,000 — Total Dissolved Solids (TDS) Isoconcentration Contour (Dashed where Inferred)
- 432 — TDS Concentration in milligrams per liter (mg/L)
- 2,620 — TDS Concentration (mg/L) Exceeds New Mexico Water Quality Control Commission Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not guaged
3. Site Location: 32.19891, -103.21523
4. MW-12 was installed off-site and upgrade of plume.
5. * - Groundwater monitoring well not used for contouring
6. NS - Not Sampled.

N

0 250 500 1,000 Feet

Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

SEMI-ANNUAL TDS ISOCONCENTRATION MAPS 2023

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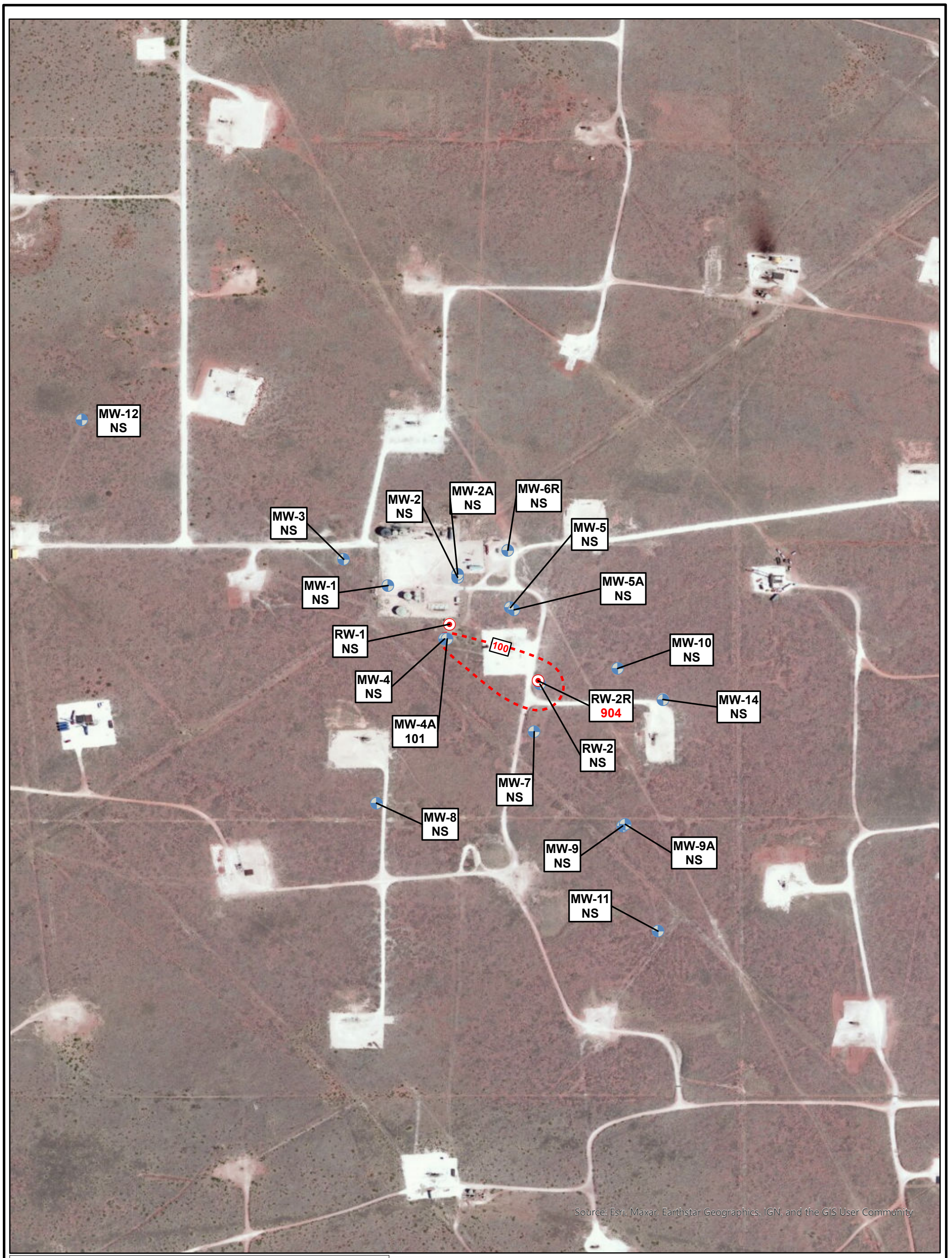
FIGURE 5

Document Path: T:_ENV\Chevron\Cooper Jal\D-ProjectWorking_IMXD\2023\Chevron_CooperJal_July2023.aprx, User Name: ski01076



Legend

- Monitoring Well Location
- Recovery Well
- 100 — Sulfate Isoconcentration Contour (dashed where Inferred)
- 101 — Sulfate Concentration in milligrams per liter (mg/L)
- 904 — Sulfate Concentration (mg/L) Exceeds NMWQCC Other Standards for Domestic Water Supply

Notes:
1. Datum: D_WGS_1984
2. Cooper Jal Oil Wells were not guaged
2. Site Location: 32.19891, -103.21523
4. NS = Not Sampled

N

0 200 400 800 Feet

Chevron Environmental Management Company
Cooper-Jal Unit South Injection Site
Lea County, New Mexico

ANNUAL SULFATE ISOCONCENTRATION MAP 2023

ARCADIS

FIGURE 6

Document Path: T:_ENV\Chevron\Cooper Jal\D-ProjectWorking_\MXD\2023\Chevron_CooperJal_July2023.aprx, User Name: ski01076

Appendix A

Site Background

REGULATORY BACKGROUND

Site assessment activities were initiated in 1993 when Environmental Spill Control, Inc. (ESCI) of Hobbs, New Mexico, performed a subsurface assessment of an unlined earthen produced water overflow pit, reportedly located adjacent to the western edge of the Site. During the investigation, five boreholes were advanced to depths ranging from 15 feet below ground surface (ft bgs) to 100 ft bgs. The investigation revealed the presence of hydrocarbon-impacted soil. In 1996, Texaco Exploration and Production, Inc. (Texaco) filed a notice of intent to close the pit with the New Mexico Oil Conservation Division (NMOCD). Approximately 1,248 cubic yards (cy) of hydrocarbon-impacted soil were removed from the pit. During the closure activities, the excavation was lined with imported clay and backfilled with imported caliche. Texaco submitted a pit closure report to the NMOCD in December 1996.

In 1997, the NMOCD requested additional assessment activities to define the vertical extent of affected soil beneath the former pit. Assessment activities performed by Highlander Environmental Corporation revealed elevated chloride concentrations in the soil. In October 1997, monitor well MW-1 was installed near the former pit. Groundwater samples collected from the monitor well contained chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards for Groundwater (250 milligrams per liter [mg/L]). Assessment activities performed through May 1998 included the installation of 13 additional monitor wells. In 1998, electromagnetic (EM 34) terrain conductivity surveys were completed to identify areas of elevated chloride concentrations in soil.

REGULATORY FRAMEWORK

The NMOCD of the New Mexico Energy, Minerals, and Natural Resources Department has regulatory jurisdiction over corrective actions conducted at the Site. Corrective actions follow guidance given by the NMOCD in *Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993).* These guidelines require remediation of four constituents of concern (COCs) in groundwater to the human health standards of the NMWQCC set forth in New Mexico Administrative Code 20.6.2.3103B as follows:

Analyte	NMWQCC Standard for Groundwater (mg/L)
Chloride	250
Total Dissolved Solids (TDS)	1,000
Fluoride	1.6
Sulfate (SO4)	600

Note: mg/L = milligrams per liter

The original analyte list included carbonate alkalinity, bicarbonate alkalinity, total alkalinity, nitrate-N, calcium, magnesium, potassium, sodium, chlorides, TDS, fluoride, and sulfate. In a letter to the NMOCD, dated December 15, 2014, GHD, on behalf of CEMC, requested a reduction in the list of analytical parameters and a reduction in the wells included in the monitoring program. In a subsequent email, dated May 19, 2015, the NMOCD approved the reduction of the list of analyses to chlorides, TDS, fluoride, and sulfate only. No wells were eliminated from the monitoring program. Arcadis, on behalf of CEMC, prepared and submitted the Proposal Groundwater Monitoring Reduction Workplan to the NMOCD in July 2020, which would reduce the number of wells that would be sampled

during the second semiannual groundwater sampling event to 11 out of 20 wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R). In an email from the NMOCD dated February 13, 2023, the proposed reduction plan was approved with an additional request to collect annual sulfate analysis from two site wells, one monitoring well, MW-4A, and one site recovery well, RW-2R.

Arcadis prepared the Cooper Jal 2021 Stage 2 & 2 Abatement Plan which was submitted to the NMOCD in July 2022. On February 1, 2023, Arcadis and CEMC met with NMOCD to review the 2021 Stage 1 & 2 abatement plan to discuss the additional information that will need to be included prior to the NMOCD's approval. In an email from the NMOCD dated February 20, 2023, the Cooper Jal 2021 Stage 1& 2 Abatement Plan was officially rejected requiring additional information for approval. Arcadis will update the Cooper Jal Stage 1 and Stage 2 Abatement plan and attempt to schedule a meeting with NMOCD to review the corrected sections to ensure that the required expectations of NMOCD are fully met.

GROUNDWATER SAMPLING AND ANALYSIS

In June 1998, Texaco prepared a groundwater corrective action plan to mitigate chloride concentrations and to provide plume containment by extracting groundwater from the affected groundwater-bearing unit (GWBU). Between 1999 and 2013, assessment activities included the installation of wells MW-6R, MW-11 to MW-14, RW-1, RW-2, and RW-2R. Monitor well MW-6 was plugged and abandoned in September 2013 due to a damaged well casing. Due to on-Site wells (MW-1, MW-2, MW-2A, MW-3, and MW-6) fully delineating the northern boundary of the chloride plume, monitor well MW-13, located approximately 1,000 feet up-gradient and off-Site, was plugged and abandoned on July 11, 2017. Semiannual groundwater monitoring activities and annual reporting to the NMOCD for this Site have been performed by GHD (formerly Conestoga-Rovers & Associates, Inc. [CRA]) since 2005 and continued until 2018. Arcadis has since then taken over the semiannual groundwater monitoring activities and annual reporting to the NMOCD from 2019 to 2023.

Groundwater at the Site is monitored semiannually via a network of 18 monitor wells and 2 recovery wells. Arcadis collected samples from 18 monitoring and recovery wells (MW-1, MW-2, MW-2A, MW-3, MW-4A, MW-5, MW-5A, MW-6R, MW-7, MW-8, MW-9, MW-9A, MW-11, MW-12, MW-14, RW-1, RW-2, and RW-2R) during the June 20, 2019 sampling event, and only collected 3 samples (MW-6R, MW-9, and MW-14) on November 23, 2019. During 2020 Arcadis developed a revised semi-annually sampling plan. On February 13, 2023 the proposed reduction plan was approved with an additional request to collect annual sulfate analysis from two site wells, one monitoring well, MW-4A, and one site recovery well, RW-2R. During each sampling event, all Site wells are gauged to determine depth to water and depth to non-aqueous phase liquid (LNAPL), if present. Additionally, Arcadis collects conductivity readings through the water column at two-foot intervals at each Site well annually in conjunction with the first semi-annual sampling event.

All 20 site monitoring and recovery wells were sampled during the first semiannual event conducted on April 20, 2020. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R) were sampled during the second semiannual monitoring event performed on October 12, 2020. All 20 site monitoring and recovery wells were sampled during the first semiannual monitoring event conducted on June 25, 2021. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4, MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, and RW-2R) were sampled during the second semiannual event performed on December 6, 2021. All 20 site monitoring and recovery wells were sampled during the first semiannual monitoring event conducted on July 20, 2023. Eleven of the monitoring and recovery wells (MW-1, MW-2, MW-4,

MW-5, MW-7, MW-9, MW-10, MW-12, RW-1, RW-2, RW-2R) were sampled during the second semiannual monitoring event performed on November 13, 2023 as per the 2023 SAP.

Historically, chloride concentrations show decreasing trends in upgradient monitor wells MW-1, MW-2, and MW-5, as shown on concentration versus date graphs in Exhibit 1A, available in the *2018 Annual Groundwater Monitoring Report*. Increasing trends have been observed since 1997 in downgradient monitor wells MW-7, MW-9, MW-9A, and MW-10, as indicated in Exhibit 1B (available in the *2018 Annual Groundwater Monitoring Report*), although more recent data indicate that these concentrations are stabilizing with some variability, with the exception of monitor well MW-7. Similar trends are apparent in TDS and sulfate concentrations. There are no strong trends in the observed historical concentrations of fluoride. Based on current and historical concentration data, the groundwater plume at the Site is fully delineated.

Soil Boring and Monitor Well Installation

The New Mexico Office of the State Engineer (NMOSE) governs water usage in the State of New Mexico. Applications for Permits to Appropriate Groundwater were submitted by Texaco in October 1999 and were approved with specific conditions in June 2008. A total of 65 acre-feet (ac-ft) per annum from the two on-Site recovery wells (RW-1 and RW-2) was granted by the NMOSE for environmental remediation purposes. Usage of groundwater was granted by the NMOSE under well permits CP-884 (RW-2; 32.5 ac-ft per annum) and CP-885 (RW-1; 32.5 ac-ft per annum).

Due to apparent damage at RW-2 that would prevent the installation of a pump, RW-2R was installed under well permit CP-884-POD2 to replace RW-2 in 2013. An application to change the designation of RW-2 from a recovery well to a monitor well was submitted on December 16, 2016. This was done to allow the well to remain in the monitor well network instead of being plugged and abandoned. The change was conditionally approved, pending further assessment of the well integrity, by the NMOSE in a phone conversation on January 9, 2017. On February 10, 2017, GHD further assessed RW-2 and found the annular seal to be compliant with New Mexico Administrative Code (NMAC) 19.27.4.30 Regulations and the well casing and well pad to be in good condition. These findings were documented in a letter sent to the NMOSE on February 16, 2017. Based on GHD's understanding of the January 9, 2017, conversation, RW-2 is now designated as a monitor well.

To date, neither RW-1 nor RW-2R have been equipped for groundwater recovery and the Extension of Time was not requested after April 30th, 2020. A new application to NMOSE will be submitted if these wells are to become equipped in the future.

GEOLOGY/HYDROGEOLOGY ASSESSMENT

Site Setting

The Site is located on Lea County Road J7, approximately five and a half miles northwest of Jal, New Mexico, in Section 24, Township 24 South, Range 36 East, Lea County, New Mexico. The latitude and longitude coordinates of the Site are N 32° 12' 7.13" N and 103° 13' 4.36" W.

Land in the vicinity of the Site is utilized primarily for livestock ranching and oil and gas production, and production and has areas of undeveloped rangeland vegetated with indigenous grass. An injection well facility, operated by

Resaca Resources, LLC (Resaca), is located adjacent to the Site. No active Chevron U.S.A. Inc. (Chevron) operations are present in the area.

Regional Geologic Conditions

The region is characterized by a surface cover of up to 200 feet of unconsolidated to semi-lithified sediments of the Ogallala Formation consisting of sand, clay, and fluvial gravel. The upper portion of the Ogallala Formation has been heavily cemented by caliche. The Tertiary-aged sediments are underlain by the Triassic-aged Dockum Group shale ("red beds").

Site Geology

The Site boring logs used to interpret the Site geology included the October 2013 GHD field work and logs from previous groundwater assessments. The locations of the soil borings and monitor wells are shown on Figure 2. The subsurface stratigraphy typically included the following:

- A thick sand (0 to 163 feet) layer of unconsolidated fine sand containing trace caliche nodules. Sand grains gradually increasing to fine to medium grained at 140 feet,
- A fine sand layer typically ranging from 3 feet to 30 feet,
- A sandy clay layer typically ranging from 2 feet to 11 feet directly above the upper Dockum "redbeds",
- Red and gray weathered shale and mudstone "redbeds" of the Triassic Dockum Group that form the underlying confining layer.

Hydrogeologic Conditions

Regional groundwater flow in the Ogallala Aquifer is controlled by the slope of the land surface to the south with localized eastward flow into the valley of Monument Draw. The aquifer typically behaves as an unconfined aquifer. Monument Draw is an intermittent stream that contains water only after heavy rains (Texas Water Development Board [TWDB], 2008)1. The Dockum Group Shale is considered the underlying aquitard for the Ogallala Aquifer.

Site Hydrogeology

Groundwater beneath the Site is found within the lower Ogallala deposits. The depth to groundwater at the Site ranges from approximately 129.89 to 139.81 ft bgs, based on the groundwater monitoring event conducted in July/November 2023. The saturated thickness of the unconfined aquifer ranges from approximately 15 to 30 ft. The saturated thickness varies in conjunction with the elevation of the top of the Dockum shale. The thickest saturated portion of the Ogallala is to the southwest where the bedrock surface of the Dockum is the lowest. A dry borehole was encountered at BH-C, east of the property boundary of the Site.

At the Site, the local groundwater flow direction trends to the southeast with an average horizontal hydraulic gradient of approximately 0.0026 feet per foot (ft/ft), as presented in the attached figures. The southeast groundwater flow direction observed at the Site is consistent with the regional groundwater flow direction to the southeast in the Ogallala Aquifer. The deflection to the east at the eastern property boundary is likely related to the break of the slope of the land towards the Monument Draw to the east.

Appendix B

Field Methodology and Documentation

ARCADIS

Groundwater Gauging Log

Project Number	30183400
Client:	Chevron
Site ID:	UEM4822
Site Location:	Lea County, New Mexico
Measuring Point:	Top of Casing
Date(s):	07/20/2023, 07/21/2023
Sampler(s):	Daniel McGee
Gauging Equipment:	Interface Probe

Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft	Total Depth (ft bmp)	PID Reading (ppm)	LNAPL Removed (gal)	Comments
MW-1	07/20/2023	10:09	134.52	ND	169.98	--	--	--
MW-2	07/20/2023	10:09	134.20	ND	170.45	--	--	--
MW-2A	07/20/2023	10:09	134.25	ND	142.15	--	--	--
MW-3	07/21/2023	10:09	132.21	ND	171.98	--	--	--
MW-4A	07/20/2023	10:09	135.06	ND	145.64	--	--	--
MW-4	07/20/2023	10:09	135.24	ND	171.81	--	--	--
MW-5A	07/20/2023	10:09	136.66	ND	144.02	--	--	--
MW-5	07/20/2023	10:09	136.56	ND	173.89	--	--	--
MW-6R	07/20/2023	10:09	136.07	ND	179.01	--	--	--
MW-7	07/20/2023	10:09	135.50	ND	163.44	--	--	--
MW-8	07/20/2023	10:09	133.81	ND	146.91	--	--	--
MW-9A	7/20/2023	10:09	131.60	ND	142.10	--	--	--
MW-9	7/20/2023	10:09	131.90	ND	161.17	--	--	--
MW-10	07/20/2023	10:09	136.31	ND	160.79	--	--	--
MW-11	07/21/2023	10:09	130.05	ND	166.98	--	--	--
MW-12	07/21/2023	10:09	139.81	ND	171.00	--	--	--
MW-14	07/20/2023	10:09	134.33	ND	174.49	--	--	--
RW-1	07/20/2023	10:09	133.71	ND	165.46	--	--	--
RW-2R	07/20/2023	10:09	136.83	ND	180.85	--	--	--
RW-2	07/20/2023	10:09	135.20	ND	156.26	--	--	--

ft-bmp = feet below measuring point ND = Not Detected PID = Photoionization Detector Reading

ppm = parts per million -- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-1	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	153 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.52	**Total Depth (ft-bmp)**	169.98	**Water Column (ft)**	35.46	**Gallons in Well**	5.76
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	11:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-1-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-1-W-20230720 Sample Time: 11:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-2	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	163 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.2	**Total Depth (ft-bmp)**	170.45	**Water Column (ft)**	36.25	**Gallons in Well**	5.89
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	11:25	**Well Volumes Purged**	N/A	**Sample ID**	MW-2-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2-W-20230720 Sample Time: 11:25 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-2A	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	130 to 145	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.25	**Total Depth (ft-bmp)**	142.15	**Water Column (ft)**	7.90	**Gallons in Well**	1.28
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	11:35	**Well Volumes Purged**	N/A	**Sample ID**	MW-2A-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2A-W-20230720 Sample Time: 11:35 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-3	**Date**	7/21/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	132.21	**Total Depth (ft-bmp)**	171.98	**Water Column (ft)**	39.77	**Gallons in Well**	6.46
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	10:30	**Well Volumes Purged**	N/A	**Sample ID**	MW-3-W-20230721	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-3-W-20230721 Sample Time: 10:30 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-4A	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	128 to 143	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.06	**Total Depth (ft-bmp)**	145.64	**Water Column (ft)**	10.58	**Gallons in Well**	1.72
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	12:45	**Well Volumes Purged**	N/A	**Sample ID**	MW-4A-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-4A-W-20230720 Sample Time: 12:45 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-4	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.24	**Total Depth (ft-bmp)**	171.81	**Water Column (ft)**	36.57	**Gallons in Well**	5.94
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	12:35	**Well Volumes Purged**	N/A	**Sample ID**	MW-4-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-4-W-20230720 Sample Time: 12:35 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-5A	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	126 to 141	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.66	**Total Depth (ft-bmp)**	144.02	**Water Column (ft)**	7.36	**Gallons in Well**	1.2
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	12:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-5A-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-5A-W-20230720 Sample Time: 12:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-5	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.56	**Total Depth (ft-bmp)**	173.89	**Water Column (ft)**	37.33	**Gallons in Well**	6.07
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	12:05	**Well Volumes Purged**	N/A	**Sample ID**	MW-5-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-5-W-20230720 Sample Time: 12:05 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-6R	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	136 to 176	**Casing Diameter (in.)**	4	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.07	**Total Depth (ft-bmp)**	179.01	**Water Column (ft)**	42.94	**Gallons in Well**	27.91
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	11:50	**Well Volumes Purged**	N/A	**Sample ID**	MW-6R-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-6R-W-20230720 Sample Time: 11:50 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-7	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.5	**Total Depth (ft-bmp)**	163.44	**Water Column (ft)**	27.94	**Gallons in Well**	4.54
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	14:40	**Well Volumes Purged**	N/A	**Sample ID**	MW-7-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-7-W-20230720 Sample Time: 14:40 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-8	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	155 to 170	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	133.81	**Total Depth (ft-bmp)**	146.91	**Water Column (ft)**	13.10	**Gallons in Well**	2.13
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	15:00	**Well Volumes Purged**	N/A	**Sample ID**	MW-8-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-8-W-20230720 Sample Time: 15:00 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-9A	**Date**	7/21/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	127 to 142	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	131.6	**Total Depth (ft-bmp)**	142.1	**Water Column (ft)**	10.50	**Gallons in Well**	1.71
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	10:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-9A-W-20230721	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9A-W-20230721 Sample Time: 10:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-9	**Date**	7/21/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	149 to 164	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	131.9	**Total Depth (ft-bmp)**	161.17	**Water Column (ft)**	29.27	**Gallons in Well**	4.76
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	10:00	**Well Volumes Purged**	N/A	**Sample ID**	MW-9-W-20230721	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-W-20230721 Sample Time: 10:00 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-10	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.31	**Total Depth (ft-bmp)**	160.79	**Water Column (ft)**	24.48	**Gallons in Well**	3.98
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	14:05	**Well Volumes Purged**	N/A	**Sample ID**	MW-10-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-10-W-20230720 Sample Time: 14:05 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-11	**Date**	7/21/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	125 to 140	**Casing Diameter (in.)**	4	**Well Casing Material**	--
Static Water Level (ft-bmp)	130.05	**Total Depth (ft-bmp)**	166.98	**Water Column (ft)**	36.93	**Gallons in Well**	24
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	10:30	**Well Volumes Purged**	N/A	**Sample ID**	MW-11-W-20230721	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-11-W-20230721 Sample Time: 10:30 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-12	**Date**	7/21/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	157 to 172	**Casing Diameter (in.)**	4	**Well Casing Material**	--
Static Water Level (ft-bmp)	139.81	**Total Depth (ft-bmp)**	171	**Water Column (ft)**	31.19	**Gallons in Well**	20.27
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	11:00	**Well Volumes Purged**	N/A	**Sample ID**	MW-12-W-20230721	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-12-W-20230721 Sample Time: 11:00 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-14	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	131 to 171	**Casing Diameter (in.)**	4	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.33	**Total Depth (ft-bmp)**	174.49	**Water Column (ft)**	40.16	**Gallons in Well**	26.1
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	14:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-14-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-14-W-20230720 Sample Time: 14:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-1	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	130 to 174	**Casing Diameter (in.)**	5	**Well Casing Material**	--
Static Water Level (ft-bmp)	133.71	**Total Depth (ft-bmp)**	165.46	**Water Column (ft)**	31.75	**Gallons in Well**	32.24
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	12:55	**Well Volumes Purged**	N/A	**Sample ID**	RW-1-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	DUP-1-W-20230720		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-1-W-20230720 Sample Time: 12:55 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-2R	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	133 to 173	**Casing Diameter (in.)**	6	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.83	**Total Depth (ft-bmp)**	180.85	**Water Column (ft)**	44.02	**Gallons in Well**	64.38
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	13:40	**Well Volumes Purged**	N/A	**Sample ID**	RW-2R-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	--		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-2R-W-20230720 Sample Time: 13:40 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-2	**Date**	7/20/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather (°F)**	Clear	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	134 to 173	**Casing Diameter (in.)**	5	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.2	**Total Depth (ft-bmp)**	156.26	**Water Column (ft)**	21.06	**Gallons in Well**	21.39
Water Quality Meter Make/Model	--	**Purge Method**	No-Purge	**Sample Method**			Grab
Sample Time	13:50	**Well Volumes Purged**	N/A	**Sample ID**	RW-2-W-20230720	**Evacuation Equipment**	Hydrasleeve
Purge Start	--	**Gallons Purged**		**Duplicate ID**	DUP-2-W-20230720		
Purge End	--	**Total Purge Time (h:m)**	--				

Time	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
								Color	Odor
--	--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-2-W-20230720 Sample Time: 13:50 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride
mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

ARCADIS

Groundwater Gauging Log

Project Number	30183400
Client:	Chevron
Site ID:	UEM4822
Site Location:	Lea County, New Mexico
Measuring Point:	Top of Casing
Date(s):	11/13/2023
Sampler(s):	Daniel McGee
Gauging Equipment:	Interface Probe

Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft	Total Depth (ft bmp)	PID Reading (ppm)	LNAPL Removed (gal)	Comments
MW-1	11/13/2023	09:20	134.45	ND	169.81	--	--	--
MW-2	11/13/2023	09:30	134.11	ND	169.02	--	--	--
MW-2A	11/13/2023	09:35	134.19	ND	142.15	--	--	--
MW-3	11/13/2023	12:45	132.07	ND	171.80	--	--	--
MW-4A	11/13/2023	10:20	134.98	ND	145.65	--	--	--
MW-4	11/13/2023	10:25	135.10	ND	171.53	--	--	--
MW-5	11/13/2023	10:00	136.45	ND	173.52	--	--	--
MW-5A	11/13/2023	10:10	136.52	ND	144.06	--	--	--
MW-6R	11/13/2023	09:45	135.97	ND	179.09	--	--	--
MW-7	11/13/2023	11:10	135.37	ND	163.20	--	--	--
MW-8	11/13/2023	11:40	133.72	ND	146.94	--	--	--
MW-9	11/13/2023	11:55	131.76	ND	161.27	--	--	--
MW-9A	11/13/2023	12:10	131.50	ND	142.13	--	--	--
MW-10	11/13/2023	11:10	136.22	ND	160.97	--	--	--
MW-11	11/13/2023	12:30	129.89	ND	167.02	--	--	--
MW-12	11/13/2023	13:00	139.62	ND	172.07	--	--	--
MW-14	11/13/2023	11:20	134.40	ND	174.51	--	--	--
RW-1	11/13/2023	10:35	133.64	ND	162.15	--	--	DUP-1
RW-2	11/13/2023	10:45	135.08	ND	156.01	--	--	--
RW-2R	11/13/2023	10:55	137.67	ND	178.66	--	--	--

ft-bmp = feet below measuring point ND = Not Detected PID = Photoionization Detector Reading

ppm = parts per million -- = Not Recorded

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-1	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	153 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.45	**Total Depth (ft-bmp)**	169.81	**Water Column(ft)**	35.36	**Gallons in Well**	5.75
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	13:40	**Well Volumes Purged**	N/A	**Sample ID**	MW-1-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = gallons per foot
1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-1-W-20231113 Sample Time: 13:40 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-2	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	163 to 173	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	134.11	**Total Depth (ft-bmp)**	169.02	**Water Column(ft)**	34.91	**Gallons in Well**	5.67
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	14:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-2-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2-W-20231113 Sample Time: 14:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-4	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.1	**Total Depth (ft-bmp)**	171.53	**Water Column(ft)**	36.43	**Gallons in Well**	5.92
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	15:10	**Well Volumes Purged**	N/A	**Sample ID**	MW-4-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-4-W-20231113 Sample Time: 15:10 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-5	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	161 to 171	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.45	**Total Depth (ft-bmp)**	173.52	**Water Column(ft)**	37.07	**Gallons in Well**	6.02
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	14:45	**Well Volumes Purged**	N/A	**Sample ID**	MW-5-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-5-W-20231113 Sample Time: 14:45 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-7	**Date**	11/14/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.37	**Total Depth (ft-bmp)**	163.2	**Water Column(ft)**	27.83	**Gallons in Well**	4.52
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	10:55	**Well Volumes Purged**	N/A	**Sample ID**	MW-7-W-20231114	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-7-W-20231114 Sample Time: 10:55 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-9	**Date**	11/14/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	149 to 164	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	131.76	**Total Depth (ft-bmp)**	161.27	**Water Column(ft)**	29.51	**Gallons in Well**	4.8
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	11:15	**Well Volumes Purged**	N/A	**Sample ID**	MW-9-W-20231114	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-W-20231114 Sample Time: 11:15 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-10	**Date**	11/14/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	151 to 166	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	136.22	**Total Depth (ft-bmp)**	160.97	**Water Column(ft)**	24.75	**Gallons in Well**	4.02
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	10:30	**Well Volumes Purged**	N/A	**Sample ID**	MW-10-W-20231114	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-10-W-20231114 Sample Time: 10:30 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	MW-12	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	157 to 172	**Casing Diameter (in.)**	2	**Well Casing Material**	--
Static Water Level (ft-bmp)	139.62	**Total Depth (ft-bmp)**	172.07	**Water Column(ft)**	32.45	**Gallons in Well**	5.27
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	13:20	**Well Volumes Purged**	N/A	**Sample ID**	MW-12-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-12-W-20231113 Sample Time: 13:20 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-1	**Date**	11/13/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	130 to 174	**Casing Diameter (in.)**	5	**Well Casing Material**	--
Static Water Level (ft-bmp)	133.64	**Total Depth (ft-bmp)**	162.15	**Water Column(ft)**	28.51	**Gallons in Well**	28.95
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	15:35	**Well Volumes Purged**	N/A	**Sample ID**	RW-1-W-20231113	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	DUP-1-W-20231113		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-1-W-20231113 Sample Time: 15:35 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-2R	**Date**	11/14/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	133 to 173	**Casing Diameter (in.)**	6	**Well Casing Material**	--
Static Water Level (ft-bmp)	137.67	**Total Depth (ft-bmp)**	178.66	**Water Column(ft)**	40.99	**Gallons in Well**	59.94
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	10:10	**Well Volumes Purged**	N/A	**Sample ID**	RW-2R-W-20231114	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-2R-W-20231114 Sample Time: 10:10 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Chevron Groundwater Sampling Form

ARCADIS

Project Number	30183400	**Well ID**	RW-2	**Date**	11/14/2023		
Site Location	Lea County, New Mexico	**Site ID**	UEM4822	**Weather(°F)**	Cloudy	**Sampled by**	Daniel McGee
Measuring Point Description	Top of Casing	**Screen Depth Interval (ft-bmp)**	134 to 173	**Casing Diameter (in.)**	5	**Well Casing Material**	--
Static Water Level (ft-bmp)	135.08	**Total Depth (ft-bmp)**	156.01	**Water Column(ft)**	20.93	**Gallons in Well**	21.26
Water Quality Meter Make/Model	--	**Purge Method**	Low-Flow	**Sample Method**			Grab
Sample Time	09:55	**Well Volumes Purged**	N/A	**Sample ID**	RW-2-W-20231114	**Evacuation Equipment**	Hydrasleeve
Purge Start	12:30	**Gallons Purged**					
				Duplicate ID	--		
Purge End	12:30	**Total Purge**	0:0				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
--		--	--	--	--	--	--	--	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: RW-2-W-20231114 Sample Time: 09:55 Sample Depth (ft-bmp): 0

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
mS/cm = milliSiemens per centimeter
NTU = Nephe
mV = millivolts

Appendix C

Cumulative Summary of Groundwater Analytical Results

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
MW-1	09/16/97	--	--	280.00	**8,500.00**	--	--	**1,100.00**	520.00	630.00	50.00	4,300.00	**15,000.00**
	02/25/98	--	--	280.00	**5,600.00**	--	--	570.00	285.00	520.00	116.00	2,900.00	**9,300.00**
	02/14/01	<1.00	306.00	306.00	**11,000.00**	**4.40**	7.70	**1,000.00**	374.00	780.00	236.00	5,236.00	**20,000.00**
	05/17/02	<1.00	208.00	208.00	237.00	**5.83**	3.28	86.90	45.70	20.10	11.90	184.00	784.00
	10/23/02	--	--	--	168.00	--	--	96.80	--	--	--	--	696.00
	05/21/03	<1.00	290.00	290.00	**6,600.00**	<8.00	**10.90**	**875.00**	238.00	475.00	96.50	3,410.00	**13,200.00**
	11/25/03	<1.00	250.00	250.00	**402.00**	**7.03**	2.72	125.00	19.20	22.00	18.50	294.00	**1,158.00**
	05/12/04	<1.00	264.00	264.00	**504.00**	**7.31**	2.70	136.00	17.20	23.10	22.40	355.00	**1,328.00**
	11/16/04	<1.00	232.00	232.00	**384.00**	**4.94**	3.30	103.00	29.20	22.70	25.40	373.00	952.00
	11/16/05	<10.00	262.00	262.00	**1,210.00**	**3.00**	2.40	215 D1	85.40	92.60	23.00	847.00	**2,640.00**
	11/14/06	<10.00	200.00	200.00	96.00	**4.20**	2.00	76.00	13.20	6.49	15.60	172.00	624.00
	11/16/07	<10.00	255.00	255.00	**4,250.00**	**3.70**	3.90 D1	602 D1	154.00	187.00	54.00	2,100 D1	**10,900.00**
	11/04/08	<5.00	190.00	190.00	110.00	**6.30**	1.60	83.00	10.00	5.80	7.90	180.00	590.00
	11/03/09	<10.00	270.00	270.00	**4,100.00**	**4.10**	2.80	**640.00**	190.00	250.00	61.00	2,300.00	**8,000.00**
	11/10/10	<10.00	223.00	223.00	**2,670.00**	**1.92**	2.62	373.00	138.00	196.00	21.50	1,480.00	**5,020.00**
	11/10/11	<5.00	209.00	209.00	**3,220.00**	1.02	2.37	275.00	169.00	176.00	22.50	1,340.00	**5,250.00**
Dup	11/10/11	<5.00	213.00	213.00	**2,930.00**	1.05	2.35	240.00	183.00	197.00	22.60	1,480.00	**4,640.00**
	10/11/12	<5.00	190.00	190.00	**2,190.00**	**6.74**	4.52	301.00	132.00	145.00	17.90	1,140.00	**1,880.00**
	10/08/13	<6.00	211.00	211.00	**1,890.00**	1.46	2.39	247.00	131.00	114.00	15.30	914.00	**2,380.00**
	10/07/14	<4.00	205.00	205.00	**1,700.00**	0.46	2.37	277.00	118.00	126.00	14.90	860.00	**3,690.00**
	10/21/15	--	--	--	182.00	<4.00	--	78.10	--	--	--	--	559.00
	10/18/16	--	--	--	**1,320.00**	0.83	--	221.00	--	--	--	--	**2,700.00**
	10/24/17	--	--	--	148.00	**2.57**	--	79.40	--	--	--	--	594.00
	10/18/18	--	--	--	**1,290.00**	0.79	--	215.00	--	--	--	--	**2,360.00**
	06/20/19	--	--	--	**1,110.00**	--	--	--	--	--	--	--	**2,510.00**
	4/20/20	--	--	--	**317.00**	--	--	--	--	--	--	--	826.00
	10/12/20	--	--	--	**285.00**	--	--	--	--	--	--	--	799.00
	06/25/21	--	--	--	**938.00**	--	--	--	--	--	--	--	**2,030.00**
	12/06/21	--	--	--	**656.00**	--	--	--	--	--	--	--	**1,800.00**
	08/23/22	--	--	--	**805**	--	--	--	--	--	--	--	**1,540**
	12/21/22	--	--	--	**960**	--	--	--	--	--	--	--	**1,240**
	07/20/23	--	--	--	**736**	--	--	--	--	--	--	--	**1,720**
	11/13/23	--	--	--	**857**	--	--	--	--	--	--	--	**1,840**
MW-2	02/25/98	--	--	210.00	**5,900.00**	--	--	**760.00**	840.00	380.00	30.00	2,650.00	**9,400.00**
	04/09/98	--	--	290.00	**8,200.00**	--	--	**990.00**	1,100.00	490.00	29.00	3,430.00	**15,000.00**
	02/14/01	<1.00	184.00	184.00	**7,400.00**	**2.30**	4.10	**870.00**	1,025.00	488.00	48.50	3,189.00	**15,000.00**
	05/17/02	<1.00	160.00	160.00	**3,200.00**	**1.72**	3.18	483.00	587.00	239.00	35.60	1,160.00	**6,040.00**
	10/23/02	--	--	--	**2,920.00**	--	--	451.00	--	--	--	--	**6,770.00**
	05/22/03	<1.00	158.00	158.00	**2,550.00**	**2.04**	3.87	386.00	448.00	176.00	20.00	1,020.00	**5,880.00**
	11/25/03	<1.00	160.00	160.00	**3,330.00**	<4.00	5.63	446.00	555.00	227.00	32.00	1,120.00	**6,760.00**
	05/12/04	<1.00	146.00	146.00	**1,750.00**	<2.00	2.78	246.00	308.00	112.00	29.70	549.00	**3,965.00**
	11/16/04	<1.00	120.00	120.00	**430.00**	<1.00	2.13	56.90	104.00	29.40	22.40	158.00	832.00
	11/16/05	<10.00	171.00	171.00	**4,720.00**	0.72	2.60	645 D1	594.00	209.00	20.80	3,290.00	**10,000.00**
	11/14/06	<10.00	160.00	160.00	**3,500.00**	0.78 N	2.10	470.00	535.00	212.00	21.00	15,400.00	**8,260.00**
	11/14/07	<10.00	178.00	178.00	**3,280.00**	0.76	1.93	462 D1	449.00	152.00	16.20	1310 D1	**9,110.00**
	11/04/08	<5.00	150.00	150.00	**2,900.00**	<1.0	1.10	430.00	380.00	160.00	26.00	1,200.00	**5,600.00**
	11/16/09	<10.00	150.00	150.00	**2,000.00**	1.10	1.60	340.00	290.00	120.00	20.00	750.00	**4,300.00**
	11/12/10	<10.00	186.00	186.00	**1,890.00**	0.73	1.86	327.00	326.00	120.00	9.80	795.00	**3,680.00**
	11/10/11	<5.00	175.00	175.00	**1,480.00**	0.81	1.31	150.00	227.00	83.20	9.75	668.00	**2,860.00**
	10/11/12	<5.00	149.00	149.00	**524.00**	0.55	1.92	231.00	119.00	31.70	8.78	286.00	**1,090.00**
	10/08/13	<6.00	269.00	269.00	**1,180.00**	1.20	<0.10	169.00	178.00	64.70	8.16	505.00	**2,520.00**
	10/07/14	<4.00	196.00	196.00	**695.00**	0.52	<0.023	147.00	143.00	47.50	7.30	343.00	**1,310.00**
	10/21/15	--	--	--	27.10	<2.00	--	58.60	--	--	--	--	388.00
	10/18/16	--	--	--	26.70	<0.50	--	34.40	--	--	--	--	352.00
	10/25/17	--	--	--	35.80	1.00	--	36.30	--	--	--	--	331.00
	10/18/18	--	--	--	65.90	0.66	--	48.50	--	--	--	--	384.00
	06/20/19	--	--	--	**283.00**	--	--	--	--	--	--	--	960.00
	04/20/20	--	--	--	**263.00**	--	--	--	--	--	--	--	624.00
	10/12/20	--	--	--	221.00	--	--	--	--	--	--	--	675.00
	06/25/21	--	--	--	205.00	--	--	--	--	--	--	--	685.00
	12/06/21	--	--	--	183.00	--	--	--	--	--	--	--	675.00
	08/23/22	--	--	--	**1,190**	--	--	--	--	--	--	--	**2,250**
	12/21/22	--	--	--	239	--	--	--	--	--	--	--	494
	07/20/23	--	--	--	137	--	--	--	--	--	--	--	437
	11/13/23	--	--	--	194	--	--	--	--	--	--	--	546
MW-2A	02/26/98	--	--	190.00	**280.00**	--	--	330.00	144.00	36.00	5.70	215.00	**1,200.00**
	02/14/01	<1.00	162.00	162.00	44.00	1.30	2.30	76.00	64.40	16.70	7.02	45.50	390.00
	05/15/02	<1.00	176.00	176.00	36.60	<1.00	2.34	79.10	57.60	13.90	4.35	43.80	435.00
	10/23/02	--	--	--	44.30	--	--	97.00	--	--	--	--	425.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	05/22/03	<1.00	168.00	168.00	40.50	<1.00	2.18	75.50	67.20	14.30	3.76	47.90	418.00
	11/25/03	<1.00	166.00	166.00	43.10	1.00	2.23	77.40	51.70	14.40	3.98	43.80	452.00
	05/12/04	<1.00	176.00	176.00	44.80	<1.00	2.24	76.50	62.90	15.00	3.66	43.60	440.00
	11/16/04	<1.00	164.00	164.00	52.50	1.22	2.78	75.40	68.80	15.30	3.98	49.10	428.00
	11/16/05	<10.00	151.00	151.00	56.80	0.60	2.30	75.1 D1	157.00	18.00	4.20	49.80	630 N
	11/14/06	<10.00	180.00	180.00	49.00	0.55	1.60	76.00	69.80	15.60	3.47	49.90	488.00
	11/14/07	<10.00	170.00	170.00	74.60	0.58	1.51	66.8 D1	666.00	15.30	<5.00	45.40	504.00
	11/04/08	<5.00	220.00	220.00	68.00	0.49	1.40	74.00	67.00	15.00	3.20	42.00	470.00
	11/03/09	<10.00	230.00	230.00	62.00	0.59	1.60	81.00	66.00	15.00	3.40	50.00	480.00
	11/11/10	<10.00	158.00	158.00	86.10	0.45	1.73	74.00	53.90	14.90	2.86	42.80	474.00
	11/10/11	<5.00	175.00	175.00	129.00	0.28	1.25	101.00	92.50	23.30	4.17	64.70	614.00
	10/11/12	<5.00	173.00	173.00	76.50	0.46	1.60	79.40	69.20	15.70	3.62	45.30	500.00
	10/08/13	<6.00	248.00	248.00	78.60	0.41	0.62	75.40	92.60	18.70	4.06	51.20	496.00
	10/07/14	<4.00	188.00	188.00	72.50	0.20	1.55	79.40	77.10	17.20	3.00	44.30	496.00
	10/21/15	--	--	--	76.70	<4.00	--	77.50	--	--	--	--	441.00
	10/18/16	--	--	--	84.60	<0.50	--	83.40	--	--	--	--	455.00
	10/25/17	--	--	--	83.10	1.23	--	77.30	--	--	--	--	512.00
	10/18/18	--	--	--	103.00	0.67	--	88.30	--	--	--	--	491.00
	06/20/19	--	--	--	86.50	--	--	--	--	--	--	--	554.00
	04/20/20	--	--	--	126.00	--	--	--	--	--	--	--	526.00
	06/25/21	--	--	--	96.30	--	--	--	--	--	--	--	510.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/22	--	--	--	124.00	--	--	--	--	--	--	--	560.00
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	102	--	--	--	--	--	--	--	551
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	02/27/98	--	--	190.00	**452.00**	--	--	406.00	200.00	50.00	11.00	237.00	**1,500.00**
	02/14/01	<1.00	158.00	158.00	34.00	**1.60**	2.40	100.00	54.50	19.00	7.61	48.60	440.00
	05/17/02	<1.00	158.00	158.00	30.60	1.56	2.35	102.00	55.60	18.40	5.04	50.00	433.00
	10/23/02	--	--	--	35.40	--	--	104.00	--	--	--	--	419.00
	05/22/03	<1.00	156.00	156.00	30.60	1.17	2.25	96.30	53.20	17.80	5.39	54.60	435.00
	11/25/03	<1.00	160.00	160.00	31.40	1.35	2.30	103.00	46.50	18.00	5.19	51.70	440.00
	05/12/04	<1.00	164.00	164.00	32.30	1.20	2.38	101.00	52.20	16.80	4.77	47.50	448.00
	11/16/04	<1.00	166.00	166.00	35.10	1.53	2.77	95.40	56.30	23.60	12.70	58.90	424.00
	11/17/05	<10.0	171.00	171.00	96.30	0.97	2.20	108 D1	89.20	22.10	8.87	93.40	840.00
	11/15/06	<10.00	170.00	170.00	30.00	0.92 N	1.70	96.00	51.30	17.30	4.30	57.20	505.00
	11/16/07	<10.00	170.00	170.00	39.70	0.93	1.58	88.2 D1	50.80	16.30	<5.00	50.60	570.00
	11/06/08	<5.00	150.00	150.00	36.00	1.10	1.40	97.00	50.00	17.00	4.00	48.00	430.00
	11/03/09	<10.00	160.00	160.00	35.00	1.10	1.60	110.00	49.00	17.00	4.20	56.00	410.00
	11/10/10	<10.00	164.00	164.00	35.40	0.84	1.77	99.90	48.80	15.20	3.42	45.10	380.00
	11/10/11	<5.00	165.00	165.00	36.40	0.83	1.35	87.90	57.90	18.00	3.79	53.00	404.00
	10/11/12	<5.00	162.00	162.00	36.60	1.01	1.74	100.00	51.20	16.90	4.11	51.00	438.00
	10/08/13	<6.00	194.00	194.00	38.40	1.02	1.17	98.70	56.50	18.30	4.08	54.90	450.00
	10/07/14	<4.00	187.00	187.00	19.50	0.37	1.39	62.80	44.30	9.82	22.40	38.80	332.00
	10/21/15	--	--	--	25.60	<2.00	--	74.80	--	--	--	--	307.00
	10/18/16	--	--	--	37.10	0.66	--	109.00	--	--	--	--	464.00
	10/24/17	--	--	--	35.90	1.50	--	98.70	--	--	--	--	442.00
	10/18/18	--	--	--	209.00	**5.35**	--	567.00	--	--	--	--	415.00
	06/20/19	--	--	--	40.00	--	--	--	--	--	--	--	448.00
	04/20/20	--	--	--	**68.5 F2 F1**	--	--	--	--	--	--	--	435.00
Dup	04/20/20	--	--	--	69.60	--	--	--	--	--	--	--	502.00
	06/25/21	--	--	--	42.20	--	--	--	--	--	--	--	424.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	43.10	--	--	--	--	--	--	--	417.00
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/21/23	--	--	--	41.7	--	--	--	--	--	--	--	430 B
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	02/27/98	--	--	230.00	**12,000.00**	--	--	**1,300.00**	1,700.00	880.00	48.00	5,300.00	**22,000.00**
	04/09/98	--	--	240.00	**13,000.00**	--	--	**1,500.00**	1,740.00	840.00	42.00	5,400.00	**23,000.00**
	02/14/01	<1.00	232.00	232.00	**15,000.00**	**1.80**	6.80	**1,500.00**	--	--	--	--	**29,000.00**
	05/17/02	<1.00	232.00	232.00	**11,300.00**	**2.01**	6.09	**1,380.00**	1,610.00	814.00	60.90	4,310.00	**22,600.00**
	10/23/02	--	--	--	**11,300.00**	--	--	**1,320.00**	--	--	--	--	**23,200.00**
	05/22/03	<1.00	220.00	220.00	**11,300.00**	<10.00	**12.30**	**1,370.00**	1,450.00	659.00	47.30	4,140.00	**62,500.00**
	11/26/03	<1.00	218.00	218.00	**12,100.00**	<8.00	**12.30**	**1,400.00**	1,830.00	889.00	62.00	4,620.00	**54,450.00**
	05/11/04	<1.00	214.00	214.00	**14,200.00**	<8.00	8.97	**1,560.00**	1,800.00	829.00	60.70	4,850.00	**65,450.00**
	11/17/04	<1.00	222.00	222.00	**13,600.00**	<20.00	**31.50**	**1,410.00**	2,020.00	972.00	73.60	5,900.00	**25,200.00**
	11/17/05	<10.00	181.00	181.00	**9,440.00**	0.82	0.20	45.8 D1	849.00	387.00	28.10	3,880.00	**24,300.00**
	11/15/06	<10.00	260.00	260.00	**14,000.00**	<5.00 C	5.20	**1,400.00**	1,760.00	897.00	58.80	6,150.00	**28,700.00**
	11/14/07	<10.00	255.00	255.00	**14,800.00**	0.54	7.15 D1	1,410 D1	1,170.00	382.00	48.00	4,760 D1	**36,300.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	11/12/08	<5.00	200.00	200.00	**12,000.00**	1.20	0.33	**1,300.00**	1,500.00	840.00	82.00	4,800.00	**22,000.00**
	11/04/09	<5.00	250.00	250.00	**15,000.00**	1.10	5.30	**1,600.00**	1,500.00	1,000.00	65.00	5,800.00	**30,000.00**
	11/11/10	<5.00	294.00	294.00	**15,500.00**	<1.00	**10.20**	**1,270.00**	1,380.00	904.00	40.40	5,450.00	**25,500.00**
	11/10/11	<5.00	277.00	277.00	**16,900.00**	0.11	6.16	**1,060.00**	1,680.00	1,110.00	40.00	6,490.00	**28,900.00**
	10/11/12	<5.00	256.00	256.00	**5,850.00**	**2.10**	4.58	**629.00**	434.00	334.00	21.20	2,620.00	**12,000.00**
	10/08/13	<6.00	294.00	294.00	**16,200.00**	0.72	6.79	**1,460.00**	1,690.00	1,180.00	40.80	7,370.00	**36,300.00**
	10/07/14	<4.00	291.00	291.00	**15,000.00**	<100.00	7.15	**1,740.00**	1,350.00	1,060.00	44.10	4,250.00	**32,400.00**
	10/20/15	--	--	--	**3,200.00**	<40.00	--	402.00	--	--	--	--	**7,070.00**
	10/18/16	--	--	--	**17,900.00**	<1.00	--	**1,890.00**	--	--	--	--	**35,300.00**
	10/25/17	--	--	--	**6,830.00**	<5.00	--	**754.00**	--	--	--	--	**12,300.00**
	10/18/18	--	--	--	**14,800.00**	<0.10	--	**1,510.00**	--	--	--	--	**24,700.00**
	04/20/20	--	--	--	**14,600.00**	--	--	--	--	--	--	--	**28,900.00**
	10/12/20	--	--	--	**14,200.00**	--	--	--	--	--	--	--	**25,600.00**
	06/25/21	--	--	--	**13,600.00**	--	--	--	--	--	--	--	**28,400.00**
	12/06/21	--	--	--	**8,700.00**	--	--	--	--	--	--	--	**24,000.00**
	08/23/22	--	--	--	73.6	--	--	--	--	--	--	--	465.00
	12/21/22	--	--	--	**13,600**	--	--	--	--	--	--	--	**16,400**
	07/21/23	--	--	--	**13,300**	--	--	--	--	--	--	--	**19,800**
	11/13/23	--	--	--	**13,700**	--	--	--	--	--	--	--	**23,800**
MW-4A	02/27/98	--	--	180.00	**1,600.00**	--	--	410.00	470.00	130.00	11.00	620.00	**3,300.00**
	02/14/01	<1.00	154.00	154.00	**1,600.00**	1.40	2.80	210.00	--	--	--	--	**4,000.00**
	05/15/02	<1.00	156.00	156.00	**577.00**	<1.00	2.23	121.00	200.00	49.50	10.30	125.00	**1,610.00**
	10/23/02	--	--	--	**478.00**	--	--	114.00	--	--	--	--	**1,430.00**
	05/22/03	<1.00	154.00	154.00	**844.00**	<1.00	2.43	160.00	279.00	58.90	10.10	248.00	**2,200.00**
	11/26/03	<1.00	158.00	158.00	**1,060.00**	<4.00	5.82	182.00	337.00	79.30	15.20	329.00	**2,585.00**
	05/11/04	<1.00	156.00	156.00	**984.00**	<2.00	3.30	179.00	297.00	66.50	11.50	279.00	**2,300.00**
	11/17/04	<1.00	164.00	164.00	**1,110.00**	<2.00	4.62	186.00	369.00	75.40	14.90	413.00	**2,235.00**
	11/16/05	<10.0	181.00	181.00	**827 D1**	<0.50	2.20	160 D1	335.00	64.40	9.23	382.00	**2,340 N**
	11/15/06	<10.00	620.00	620.00	**960.00**	<0.50	2.60	170.00	227.00	53.50	8.10	406.00	**2,870.00**
	11/14/07	<10.00	311.00	311.00	**845 D1**	0.35	3.60 D1	167 D1	205.00	44.90	7.33	334.00	**2,650.00**
	11/12/08	<5.00	640.00	640.00	**650.00**	0.32	2.20	170.00	160.00	37.00	9.90	290.00	**1,700.00**
	11/04/09	<5.00	670.00	670.00	**670.00**	0.56	2.60	150.00	110.00	27.00	7.40	300.00	**1,600.00**
	11/11/10	<5.00	217.00	217.00	**663.00**	0.51	2.58	125.00	65.90	15.60	4.42	317.00	**1,760.00**
	11/10/11	<5.00	171.00	171.00	**621.00**	0.78	2.02	134.00	78.80	18.70	4.71	389.00	**1,400.00**
	10/11/12	<5.00	169.00	169.00	**516.00**	1.12	2.60	100.00	48.70	11.30	4.45	359.00	**1,200.00**
	10/08/13	<6.00	199.00	199.00	**512.00**	**2.63**	2.47	100.00	47.70	9.93	3.64	410.00	**1,170.00**
	10/07/14	<4.00	186.00	186.00	**387.00**	**1.69**	2.54	102.00	37.10	7.78	3.17	276.00	962.00
	10/20/15	--	--	--	**328.00**	<4.00	--	83.30	--	--	--	--	819.00
	10/18/16	--	--	--	**440.00**	1.49	--	97.60	--	--	--	--	**1,150.00**
	10/25/17	--	--	--	**341.00**	**2.83**	--	93.40	--	--	--	--	960.00
	10/18/18	--	--	--	**366.00**	1.29	--	99.60	--	--	--	--	901.00
	06/20/19	--	--	--	**336.00**	--	--	--	--	--	--	--	**1,040.00**
	04/20/20	--	--	--	**311 F1**	--	--	--	--	--	--	--	808.00
	06/25/21	--	--	--	**409.00**	--	--	--	--	--	--	--	**1,030.00**
	12/06/21	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	08/23/22	--	--	--	**424**	--	--	--	--	--	--	--	988
	12/21/22	--	--	--	**--**	--	--	--	--	--	--	--	**--**
	07/20/23	--	--	--	**424**	--	--	101	--	--	--	--	**1,260**
	11/13/23	--	--	--	**--**	--	--	--	--	--	--	--	**--**
MW-5	02/26/98	--	--	180.00	**6,600.00**	--	--	**910.00**	1,400.00	470.00	31.00	2,400.00	**12,000.00**
	02/14/01	<1.00	166.00	166.00	**7,700.00**	**1.80**	4.10	**910.00**	--	--	--	--	**18,000.00**
	05/17/02	<1.00	156.00	156.00	**4,040.00**	1.53	4.56	586.00	757.00	319.00	60.90	1,260.00	**8,340.00**
	10/23/02	--	--	--	**3,900.00**	--	--	94.80	--	--	--	--	422.00
	05/22/03	<1.00	158.00	158.00	**3,170.00**	<4.00	6.52	550.00	644.00	215.00	49.90	1,240.00	**7,860.00**
	11/25/03	<1.00	168.00	168.00	**5,120.00**	<4.00	6.77	**739.00**	978.00	365.00	54.90	1,680.00	**11,940.00**
	05/11/04	<1.00	160.00	160.00	**6,760.00**	<3.00	4.65	**1,030.00**	1,180.00	417.00	40.30	2,120.00	**20,380.00**
	11/17/04	<1.00	172.00	172.00	**6,750.00**	<10.00	**16.60**	**786.00**	1,210.00	486.00	40.60	2,300.00	**11,980.00**
	11/17/05	<10.00	161.00	161.00	**2,140 D1**	0.79	0.16	334 D1	339.00	126.00	10.80	791.00	**7,120 N**
	11/14/06	<10.00	160.00	160.00	**2,000.00**	0.60	1.50	300.00	437.00	173.00	14.20	918.00	**4,420.00**
	11/14/07	<10.00	161.00	161.00	**5,790 D1**	0.37	4.01 D1	668 D1	812.00	240.00	23.30	1,850 D1	**16,300.00**
	11/06/08	<5.00	160.00	160.00	**4,900.00**	0.78	0.32	540.00	660.00	310.00	35.00	1,600.00	**9,700.00**
	11/03/09	<10.00	160.00	160.00	**5,100.00**	0.51	2.30	**710.00**	860.00	320.00	<13.00	1,800.00	**11,000.00**
	11/11/10	<5.00	176.00	176.00	**4,200.00**	0.16	2.37	554.00	687.00	250.00	17.30	1,400.00	**8,890.00**
	11/10/11	<5.00	172.00	172.00	**4,340.00**	0.24	0.55	411.00	944.00	326.00	19.70	1,780.00	**7,840.00**
	10/11/12	<5.00	164.00	164.00	**3,630.00**	0.38	2.26	474.00	671.00	239.00	17.00	1,360.00	**8,300.00**
	10/08/13	<6.00	176.00	176.00	**3,730.00**	0.37	1.56	425.00	659.00	253.00	15.40	1,440.00	**8,060.00**
	10/07/14	<4.00	172.00	172.00	**2,830.00**	<0.10	2.19	398.00	521.00	195.00	15.10	979.00	**5,280.00**
	10/21/15	--	--	--	**2,480.00**	<40.00	--	362.00	--	--	--	--	**5,510.00**
	10/18/16	--	--	--	**2,260.00**	<0.50	--	326.00	--	--	--	--	**5,380.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	10/25/17	--	--	--	**2,090.00**	<5.00	--	318.00	--	--	--	--	**3,780.00**
Dup	10/25/17	--	--	--	**2,010.00**	<5.00	--	300.00	--	--	--	--	**3,240.00**
	10/18/18	--	--	--	**1,890.00**	<0.10	--	323.00	--	--	--	--	**3,420.00**
	06/20/19	--	--	--	**1,700.00**	--	--	--	--	--	--	--	**4,280.00**
	04/20/20	--	--	--	**1,870.00**	--	--	--	--	--	--	--	**4,150.00**
	10/12/20	--	--	--	**1,460.00**	--	--	--	--	--	--	--	**2,960.00**
	06/25/21	--	--	--	**1,330.00**	--	--	--	--	--	--	--	**2,590.00**
	12/06/21	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,630.00**
	08/23/22	--	--	--	101	--	--	--	--	--	--	--	493
	12/21/22	--	--	--	**1,150**	--	--	--	--	--	--	--	**2,230**
	07/20/23	--	--	--	**1,050**	--	--	--	--	--	--	--	**2,440**
	11/13/23	--	--	--	**991**	--	--	--	--	--	--	--	**2,420**
MW-5A	02/26/98	--	--	170.00	190.00	--	--	180.00	107.00	23.00	3.50	117.00	740.00
	02/15/01	<1.00	164.00	164.00	140.00	1.20	2.10	130.00	90.20	27.90	8.70	74.60	670.00
	05/15/02	<1.00	182.00	182.00	53.50	<1.00	2.23	84.40	63.20	16.10	4.69	43.60	475.00
	10/23/02	--	--	--	50.00	--	--	**616.00**	--	--	--	--	**8,670.00**
	05/22/03	<1.00	158.00	158.00	32.50	<1.00	2.10	69.90	55.50	13.80	3.41	41.50	416.00
	11/25/03	<1.00	332.00	332.00	34.10	1.05	2.20	75.50	60.90	14.60	4.08	45.00	422.00
	05/11/04	<1.00	164.00	164.00	38.80	<1.00	2.25	75.80	60.90	15.00	3.40	43.20	484.00
	11/17/04	<1.00	152.00	152.00	39.60	1.37	2.66	74.30	58.10	13.60	3.83	48.50	430.00
	11/16/05	<10.00	191.00	191.00	40.20	0.82	2.10	75.2 D1	176.00	17.80	4.22	45.30	570 N
	11/14/06	<10.00	240.00	240.00	47.00	0.64	1.50	79.00	90.40	16.10	3.58	51.40	588.00
	11/14/07	<10.00	227.00	227.00	54.40	0.66	1.45	68.7 D1	73.70	14.00	<5.00	44.20	528.00
	11/06/08	<5.00	350.00	350.00	53.00	0.70	1.30	72.00	76.00	15.00	3.40	43.00	450.00
	11/03/09	<10.00	710.00	710.00	47.00	0.72	1.50	79.00	65.00	14.00	3.30	50.00	440.00
	11/11/10	<5.00	182.00	182.00	49.60	0.57	1.61	73.60	55.70	12.90	2.79	42.00	606.00
	11/10/11	<5.00	170.00	170.00	131.00	0.49	1.15	116.00	83.80	29.90	5.16	85.70	594.00
	10/11/12	<5.00	163.00	163.00	68.00	0.63	1.57	69.80	60.60	15.30	3.96	49.20	534.00
	10/08/13	<6.00	182.00	182.00	80.20	0.57	1.60	67.50	69.30	16.20	3.29	53.40	462.00
	10/07/14	<4.00	168.00	168.00	73.60	0.29	1.56	64.90	66.20	15.70	2.76	45.20	432.00
	10/21/15	--	--	--	84.90	<4.00	--	65.60	--	--	--	--	499.00
	10/18/16	--	--	--	101.00	<0.50	--	65.40	--	--	--	--	466.00
	10/25/17	--	--	--	99.60	1.14	--	59.30	--	--	--	--	537.00
	10/18/18	--	--	--	132.00	0.79	--	67.50	--	--	--	--	477.00
	06/20/19	--	--	--	118.00	--	--	--	--	--	--	--	650.00
	04/20/20	--	--	--	120.00	--	--	--	--	--	--	--	571.00
	06/25/21	--	--	--	140.00	--	--	--	--	--	--	--	529.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/22	--	--	--	**15,000**	--	--	--	--	--	--	--	**18,500**
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	146	--	--	--	--	--	--	--	552
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	02/26/98	--	--	200.00	**260.00**	--	--	400.00	180.00	44.00	6.20	205.00	**1,200.00**
	02/14/01	<1.00	158.00	158.00	59.00	**1.70**	2.20	99.00	67.50	22.10	7.67	52.30	470.00
	05/17/02	<1.00	162.00	162.00	37.80	**1.62**	2.14	99.30	63.10	19.60	5.12	48.60	427.00
	10/23/02	--	--	--	46.10	--	--	109.00	--	--	--	--	331.00
	05/22/03	<1.00	162.00	162.00	40.30	1.24	2.13	94.40	61.70	17.40	4.23	51.90	464.00
	11/25/03	<1.00	154.00	154.00	53.60	1.40	2.18	98.00	53.60	18.70	4.97	51.70	482.00
	05/11/04	<1.00	156.00	156.00	54.40	1.23	2.19	97.00	59.00	18.10	4.22	47.80	506.00
	11/16/04	<1.00	162.00	162.00	57.90	**1.64**	2.68	99.80	66.60	19.60	5.16	57.00	464.00
	11/17/05	<10.00	201.00	201.00	101.00	0.97	0.35	97.8 D1	103.00	20.20	4.10	59.10	730.00
	11/15/06	<10.00	750.00	750.00	68.00	0.99	1.50	93.00	64.60	20.40	4.23	57.10	507.00
	11/15/07	<10.00	284.00	284.00	162.00	**51.00**	1.35	96.3 D1	84.10	25.20	<5.00	62.10	630.00
	11/06/08	<5.00	220.00	220.00	84.00	1.20	1.20	95.00	67.00	21.00	4.30	53.00	490.00
	11/03/09	<10.00	190.00	190.00	81.00	1.20	1.40	100.00	66.00	20.00	4.50	59.00	550.00
	11/08/10	NS - Well Damaged											
	11/10/11	NS - Well Damaged											
	10/11/12	NS - Well Damaged											
	09/30/13	Well Plugged and Abandoned											
MW-6R	10/08/13	<6.00	225.00	225.00	110.00	**1.91**	<0.10	102.00	69.90	24.40	5.17	85.60	600.00
	10/07/14	<4.00	182.00	182.00	39.70	0.55	0.68	93.00	59.20	18.20	3.10	48.20	402.00
	10/21/15	--	--	--	40.70	<2.00	--	98.60	--	--	--	--	390.00
	10/18/16	--	--	--	42.30	0.63	--	105 J	--	--	--	--	442.00
	10/25/17	--	--	--	49.30	1.46	--	93.80	--	--	--	--	465.00
	10/18/18	--	--	--	69.10	1.05	--	107.00	--	--	--	--	442.00
	06/20/19	--	--	--	59.10	--	--	--	--	--	--	--	482.00
Dup	06/20/19	--	--	--	64.40	--	--	--	--	--	--	--	592.00
	11/23/19	--	--	--	69.40	--	--	95.20	--	--	--	--	384.00
	04/20/20	--	--	--	77.40	--	--	--	--	--	--	--	506.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	06/25/21	--	--	--	71.70	--	--	--	--	--	--	--	487.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/22	--	--	--	145	--	--	--	--	--	--	--	514
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	71.5	--	--	--	--	--	--	--	479
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/14/98	--	--	230.00	**430.00**	--	--	340.00	214.00	66.00	13.00	165.00	**1,200.00**
	02/14/01	<1.00	150.00	150.00	**510.00**	**1.70**	2.40	150.00	--	--	--	--	**1,500.00**
	05/16/02	<1.00	150.00	150.00	75.70	1.59	2.27	97.40	68.60	23.20	6.63	54.30	501.00
	10/22/02	--	--	--	88.60	--	--	109.00	--	--	--	--	490.00
	05/22/03	<1.00	140.00	140.00	173.00	1.17	2.14	88.90	85.50	28.20	6.18	64.60	631.00
	11/26/03	<1.00	136.00	136.00	189.00	1.29	2.23	93.50	95.70	31.00	7.91	63.60	704.00
	05/13/04	<1.00	130.00	130.00	**267.00**	1.11	2.18	94.70	107.00	34.70	6.59	62.90	914.00
	11/16/04	<1.00	130.00	130.00	**367.00**	1.49	2.72	97.30	142.00	49.30	8.61	87.90	870.00
	11/17/05	<10.0	121.00	121.00	**456 D1**	0.53	0.28	106 D1	412.00	64.70	12.10	100.00	**1,440.00**
	11/15/06	<10.00	240.00	240.00	**550.00**	0.63	1.50	110.00	202.00	70.30	7.40	102.00	**2,100.00**
	11/15/07	<10.00	189.00	189.00	**458 D1**	1.20	1.39	176 D1	144.00	59.50	9.95	148.00	**1,880.00**
	11/12/08	<5.00	110.00	110.00	**650.00**	0.84	1.20	140.00	210.00	76.00	12.00	120.00	**1,600.00**
	11/04/09	<5.00	110.00	110.00	**1,100.00**	0.63	1.50	160.00	310.00	120.00	11.00	130.00	**2,800.00**
	11/10/10	<5.00	111.00	111.00	**1,310.00**	0.37	1.64	173.00	415.00	149.00	10.00	150.00	**3,130.00**
	11/10/11	<5.00	106.00	109.00	**1,710.00**	0.30	1.45	147.00	662.00	203.00	12.30	198.00	**3,660.00**
	10/11/12	<5.00	108.00	108.00	**2,020.00**	0.44	1.71	261.00	619.00	215.00	12.30	208.00	**5,580.00**
	10/08/13	<6.00	142.00	142.00	**2,840.00**	0.45	2.11	331.00	916.00	258.00	13.30	265.00	**7,530.00**
	10/07/14	<4.00	116.00	116.00	**2,190.00**	<0.10	2.03	317.00	682.00	238.00	12.20	227.00	**7,920.00**
	10/20/15	--	--	--	**1,420.00**	<20.00	--	231.00	--	--	--	--	**3,130.00**
	10/18/16	--	--	--	**2,920.00**	<0.50	--	385.00	--	--	--	--	**7,160.00**
	10/24/17	--	--	--	**1,670.00**	<2.00	--	249.00	--	--	--	--	**2,660.00**
	10/18/18	--	--	--	**4,000.00**	<0.10	--	482.00	--	--	--	--	**6,450.00**
	06/20/19	--	--	--	**4,210.00**	--	--	--	--	--	--	--	**15,500.00**
	04/20/20	--	--	--	**4,570.00**	--	--	--	--	--	--	--	**14,100.00**
	10/12/20	--	--	--	**4,560.00**	--	--	--	--	--	--	--	**8,090.00**
	06/25/21	--	--	--	**4,140.00**	--	--	--	--	--	--	--	298.00
	12/07/21	--	--	--	**3,780.00**	--	--	--	--	--	--	--	**8,540.00**
	08/23/22	--	--	--	**5,170**	--	--	--	--	--	--	--	**10,800**
	12/21/22	--	--	--	**5,280**	--	--	--	--	--	--	--	**11,700**
	07/20/23	--	--	--	**5,150**	--	--	--	--	--	--	--	**14,500**
	11/14/23	--	--	--	**5,350**	--	--	--	--	--	--	--	**11,600**
MW-8	05/13/98	--	--	200.00	**270.00**	--	--	390.00	190.00	60.00	12.00	170.00	**1,200.00**
	02/14/01	<1.00	156.00	156.00	49.00	**1.80**	2.50	100.00	59.90	21.50	7.84	52.90	400.00
	05/16/02	<1.00	158.00	158.00	32.90	1.57	2.33	101.00	56.60	19.20	5.20	49.50	432.00
	10/22/02	--	--	--	40.80	--	--	104.00	--	--	--	--	392.00
	05/22/03	8.00	160.00	168.00	33.20	1.40	2.32	98.30	53.90	18.30	9.31	46.40	410.00
	11/26/03	<1.00	142.00	142.00	31.70	1.59	2.38	95.60	55.30	18.20	5.31	50.20	443.00
	05/12/04	<1.00	154.00	154.00	36.30	1.39	2.38	101.00	53.00	17.30	4.56	48.10	435.00
	11/16/04	<1.00	170.00	170.00	39.80	**1.94**	2.94	103.00	57.80	18.60	5.63	56.40	435.00
	05/17/05	4.00	152.00	156.00	41.00	**1.64**	2.94	105.00	61.00	18.60	5.78	47.30	434.00
	11/17/05	<10.00	171.00	171.00	113.00	1.10	<0.05	115 D1	83.40	21.70	5.74	102.00	750.00
	05/09/06	<10.00	160.00	160.00	210.00	0.89	1.40	200.00	72.70	33.30	7.12	125.00	896.00
	11/14/06	<10.00	150.00	150.00	230.00	1.10	1.20	200.00	74.20	38.30	9.61	162.00	912.00
	05/30/07	<10.00	141.00	141.00	62.00	1.20	1.74	120.00	54.10	19.10	<5.00	59.30	500.00
	11/15/07	<10.00	159.00	159.00	43.10	1.33	1.56	94.2 D1	52.10	17.20	<5.000	49.80	540.00
	05/15/08	<1.53	151.00	151.00	40.70	1.40	1.78	99.6 D1	51.70	16.80	4.10	54.8 D1	427.00
	11/12/08	<5.00	140.00	140.00	39.00	1.40	1.50	97.00	52.00	17.00	<2.6	46.00	350.00
	05/20/09	<5.00	140.00	140.00	39.00	1.30	1.60	110.00	50.00	17.00	4.30	49.00	430.00
	11/04/09	<5.00	150.00	150.00	41.00	1.40	1.70	110.00	46.00	16.00	3.30	47.00	450.00
	05/07/10	<5.00	<5.00	172.00	34.90	1.09	1.70	97.80	49.50	15.70	3.52	45.50	426.00
Dup	05/07/10	<5.00	<5.00	157.00	34.90	1.09	1.71	98.00	51.00	14.50	3.21	43.60	466.00
	11/12/10	<5.00	172.00	172.00	38.70	1.10	1.77	98.20	48.90	15.70	3.40	45.40	410.00
Dup	11/12/10	<5.00	160.00	160.00	38.70	1.10	1.76	98.30	50.50	15.30	3.44	44.80	398.00
	05/11/11	<5.00	170.00	170.00	185.00	1.20	1.60	93.00	73.00	28.40	5.68	165.00	692.00
	11/10/11	<5.00	161.00	161.00	36.90	1.06	1.41	87.40	57.10	17.00	3.46	48.60	406.00
	05/17/12	<5.00	173.00	173.00	37.90	1.09	1.59	92.90	53.30	16.40	3.83	56.70	440.00
	10/11/12	<5.00	158.00	158.00	39.90	1.29	1.83	103.00	49.00	16.60	4.30	49.00	444.00
	05/17/13	<5.00	167.00	167.00	38.30	1.37	1.70	106.00	55.30	17.50	3.67	45.90	416.00
	10/08/13	<6.00	182.00	182.00	39.50	1.17	1.78	96.20	57.40	19.70	4.35	57.60	446.00
	05/01/14	<10.00	165.00	165.00	40.60	1.12 J	1.81	106.00	55.10	19.90	3.82	52.90	436.00
	10/07/14	<4.00	176.00	176.00	8.14	0.16	1.07	30.50	40.00	4.98	7.81	35.10	259.00
	05/22/15	--	--	--	10.00	<2.00	--	30.10	--	--	--	--	252.00
	10/20/15	--	--	--	8.03	<2.00	--	32.50	--	--	--	--	146.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	05/25/16	--	--	--	30.00	0.85	--	88.70	--	--	--	--	434.00
	10/18/16	--	--	--	4.28	<0.50	--	32.80	--	--	--	--	261.00
	05/11/17	--	--	--	9.10	<0.02	--	32.20	--	--	--	--	214.00
Dup	05/11/17	--	--	--	8.62	<0.02	--	32.20	--	--	--	--	182.00
	10/24/17	--	--	--	3.69	0.23	--	18.30	--	--	--	--	286.00
	05/22/18	--	--	--	5.22	0.32	--	21.90	--	--	--	--	282.00
	10/18/18	--	--	--	5.41	0.61	--	19.10	--	--	--	--	258.00
	06/20/19	--	--	--	NS	--	--	--	--	--	--	--	NS
	04/20/20	--	--	--	49.00	--	--	--	--	--	--	--	305.00
	06/25/21	--	--	--	28.90	--	--	--	--	--	--	--	391.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	32.0	--	--	--	--	--	--	--	371
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	36.9	--	--	--	--	--	--	--	432
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/14/98	--	--	190.00	**350.00**	--	--	470.00	207.00	61.00	12.00	200.00	**1,300.00**
	02/15/01	<1.00	156.00	156.00	35.00	**2.60**	2.40	110.00	60.40	19.80	7.47	47.00	430.00
	05/16/02	<1.00	160.00	160.00	31.70	**2.22**	2.28	99.40	60.80	17.60	5.32	50.10	440.00
	10/23/02	--	--	--	39.00	--	--	102.00	--	--	--	--	436.00
	05/22/03	<1.00	160.00	160.00	31.00	**1.75**	2.19	93.30	52.20	15.80	4.75	50.20	455.00
	11/26/03	<1.00	150.00	150.00	31.80	**1.99**	2.34	99.80	57.70	16.60	4.69	46.30	452.00
	05/12/04	<1.00	164.00	164.00	33.60	**1.79**	2.29	99.20	54.80	16.00	4.27	43.50	467.00
	11/16/04	8.00	154.00	162.00	**367.00**	1.49	2.72	97.30	63.20	17.80	5.59	55.50	433.00
	05/17/05	4.00	154.00	154.00	44.20	**2.43**	3.05	117.00	58.80	16.70	5.94	44.10	434.00
	11/17/05	<10.00	161.00	161.00	83.50	1.30	0.14	111 D1	149.00	26.20	7.43	80.40	790 N
	05/09/06	<10.00	170.00	170.00	37.00	**1.80**	1.80	99.00	52.70	15.00	3.21	45.50	428.00
	11/15/06	<10.00	150.00	150.00	210.00	1.10	1.20	190.00	70.50	35.80	8.64	152.00	905.00
	05/30/07	<10.00	153.00	153.00	35.00	**2.10**	1.69	110.00	52.20	15.80	<5.00	44.70	464.00
	11/14/07	<10.00	151.00	151.00	186.00	1.49	1.48	156 D1	74.10	39.40	8.73	141.00	808.00
	05/15/08	<1.53	174.00	174.00	42.50	**2.38**	1.72	105 D1	55.60	17.00	3.99	54.1 D1	467.00
	11/04/08	<5.00	160.00	160.00	39.00	**2.10**	1.40	98.00	54.00	16.00	3.70	47.00	440.00
	05/20/09	<5.00	320.00	320.00	69.00	**2.10**	1.50	120.00	58.00	19.00	4.60	58.00	520.00
	11/04/09	<5.00	160.00	160.00	42.00	**2.20**	1.60	110.00	50.00	15.00	3.00	43.00	460.00
	05/07/10	<5.00	<5.00	162.00	50.20	**2.02**	1.66	97.50	53.60	15.70	3.32	43.50	442.00
	11/09/10	<5.00	186.00	186.00	60.70	**1.97**	1.74	98.00	59.20	18.10	3.64	50.00	446.00
	05/11/11	<5.00	160.00	160.00	80.30	**1.71**	1.72	75.70	73.90	25.80	4.61	67.90	518.00
	11/10/11	<5.00	151.00	151.00	138.00	**1.66**	1.38	107.00	82.70	26.90	4.34	65.40	582.00
	05/16/12	<5.00	162.00	162.00	137.00	**1.75**	1.61	93.50	83.80	23.20	4.39	60.30	584.00
	10/11/12	<5.00	147.00	147.00	148.00	**1.90**	1.71	98.70	80.50	25.80	4.94	59.80	644.00
	05/17/13	<5.00	144.00	144.00	246.00	**1.86**	1.61	99.30	107.00	30.20	4.43	60.20	**1,010.00**
	10/08/13	<6.00	164.00	164.00	150.00	**1.88**	1.81	99.80	90.00	25.20	4.62	60.80	620.00
	05/02/14	<10.00	143.00	143.00	**382.00**	1.56	1.77	103.00	132.00	35.70	5.74	73.70	906.00
	10/07/14	<4.00	151.00	151.00	**292.00**	0.89	1.33	98.10	136.00	41.00	4.65	67.40	**1,110.00**
	05/22/15	--	--	--	**307.00**	<8.00	--	87.70	--	--	--	--	**1,170.00**
	10/20/15	--	--	--	202.00	<4.00	--	93.70	--	--	--	--	593.00
	05/25/16	--	--	--	**404.00**	**1.61**	--	108.00	--	--	--	--	**1,430.00**
Dup	05/26/16	--	--	--	**418.00**	1.60	--	111.00	--	--	--	--	**1,430.00**
	10/18/16	--	--	--	**445.00**	1.34	--	115.00	--	--	--	--	**1,490.00**
	05/11/17	--	--	--	**481.00**	<0.22	--	118.00	--	--	--	--	**1,090.00**
	10/24/17	--	--	--	**387.00**	**2.42**	--	102.00	--	--	--	--	**1,020.00**
	05/22/18	--	--	--	**460.00**	1.28	--	119.00	--	--	--	--	**1,010.00**
	10/18/18	--	--	--	**381.00**	1.41	--	117.00	--	--	--	--	903.00
	06/20/19	--	--	--	**621.00**	--	--	--	--	--	--	--	**2,930.00**
	11/24/19	--	--	--	**337.00**	--	--	80.60	--	--	--	--	**1,170.00**
	04/20/20	--	--	--	**1,070.00**	--	--	--	--	--	--	--	**3,090.00**
	10/12/20	--	--	--	**945.00**	--	--	--	--	--	--	--	**1,860.00**
	06/25/21	--	--	--	**952.00**	--	--	--	--	--	--	--	**1,970.00**
	12/07/21	--	--	--	**856.00**	--	--	--	--	--	--	--	**1,960.00**
	08/24/22	--	--	--	**1,040**	--	--	--	--	--	--	--	**2,320**
	12/21/22	--	--	--	**1,040**	--	--	--	--	--	--	--	**2,530**
	07/21/23	--	--	--	**1,050**	--	--	--	--	--	--	--	**2,620**
	11/14/23	--	--	--	**1,100**	--	--	--	--	--	--	--	**2,930**
MW-9A	05/14/98	--	--	280.00	**600.00**	--	--	**770.00**	338.00	96.00	12.00	334.00	**2,200.00**
	02/15/01	<1.00	142.00	142.00	85.00	1.40	2.20	71.00	71.60	19.20	6.94	46.00	400.00
	05/15/02	<1.00	136.00	136.00	148.00	<1.00	2.18	65.30	62.90	16.10	4.62	46.80	445.00
	10/23/02	--	--	--	168.00	--	--	75.50	--	--	--	--	651.00
	05/22/03	<1.00	126.00	126.00	207.00	<1.00	2.09	62.10	102.00	25.20	4.80	55.70	672.00
	11/26/03	<1.00	118.00	118.00	216.00	1.14	2.26	62.70	107.00	25.10	5.31	53.20	648.00
	05/12/04	<1.00	122.00	122.00	242.00	<1.00	2.10	64.70	105.00	26.20	5.11	26.20	950.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	11/16/04	<1.00	114.00	114.00	**296.00**	1.24	2.74	67.50	130.00	33.10	6.24	70.30	826.00
	05/17/05	<1.00	112.00	112.00	**354.00**	1.04	2.85	77.10	131.00	31.70	6.39	60.50	828.00
	11/17/05	<10.00	121.00	121.00	**310 D1**	0.82	0.31	74.7 D1	337.00	41.40	8.08	74.50	**1,520 N**
	05/09/06	<10.00	670.00	670.00	**270.00**	0.67	1.60	78.00	111.00	27.10	3.88	58.70	992.00
	11/15/06	<10.00	1,600.00	1,600.00	**290.00**	0.62	1.60	72.00	126.00	33.40	4.74	68.40	**1,280.00**
	05/30/07	<10.00	586.00	586.00	**400.00**	0.70	1.69	83.00	153.00	36.90	<5.00	71.80	**1,450.00**
	11/14/07	<10.00	605.00	605.00	**285 D1**	0.62	1.52	64.7 D1	153.00	35.40	5.03	70.70	**1,430.00**
	05/15/08	<1.53	738.00	738.00	**380 D1**	0.45	1.62	86.8 D1	146.00	35.50	5.45	77.2 D1	**1,390.00**
	11/04/08	<5.00	370.00	370.00	**330.00**	<1.00	1.20	84.00	130.00	32.00	5.10	66.00	1,000.00
	05/20/09	<5.00	600.00	600.00	**480.00**	0.49	1.50	86.00	170.00	43.00	6.40	76.00	**1,600.00**
	11/04/09	<5.00	110.00	110.00	**430.00**	0.49	1.60	82.00	160.00	41.00	5.30	71.00	**1,500.00**
	05/07/10	<5.00	<5.00	121.00	**510.00**	0.21	1.62	80.50	188.00	44.90	4.90	73.60	**1,680.00**
	11/09/10	<5.00	115.00	115.00	**529.00**	0.33	1.72	86.00	159.00	44.30	5.00	76.10	**1,660.00**
	05/11/11	<5.00	146.00	146.00	**587.00**	1.18	1.90	415.00	166.00	80.60	11.30	211.00	**1,850.00**
	11/10/11	<5.00	115.00	115.00	**841.00**	0.19	1.56	125.00	280.00	84.80	7.51	117.00	**2,160.00**
	05/16/12	<5.00	135.00	135.00	**958.00**	0.37	1.74	143.00	249.00	62.60	6.50	97.70	**3,450.00**
Dup	05/16/12	<5.00	128.00	128.00	**882.00**	0.31	1.70	134.00	270.00	65.70	6.72	92.30	**3,050.00**
	10/11/12	<5.00	125.00	125.00	**628.00**	0.37	1.70	121.00	235.00	60.40	6.72	94.00	**1,810.00**
	05/17/13	<5.00	137.00	137.00	**754.00**	0.34	1.67	145.00	224.00	53.90	5.49	86.80	**1,930.00**
	10/08/13	<6.00	153.00	153.00	**534.00**	0.37	1.69	118.00	185.00	43.10	5.23	81.30	**1,210.00**
	10/07/14	Not Sampled											
	10/20/2015	--	--	--	232.00	<4.00	--	95.40	--	--	--	--	599.00
	10/18/16	--	--	--	**337.00**	<0.50	--	113.00	--	--	--	--	**1,250.00**
	10/24/17	--	--	--	206.00	<0.50	--	96.60	--	--	--	--	681.00
	10/18/18	--	--	--	**276.00**	0.60	--	119.00	--	--	--	--	816.00
	06/20/19	--	--	--	**268.00**	--	--	--	--	--	--	--	**1,220.00**
	04/20/20	--	--	--	**352.00**	--	--	--	--	--	--	--	940.00
	06/25/21	--	--	--	**307.00**	--	--	--	--	--	--	--	857.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	**239**	--	--	--	--	--	--	--	773
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/21/23	--	--	--	**260**	--	--	--	--	--	--	--	753 B
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	05/14/98	--	--	240.00	**360.00**	--	--	450.00	211.00	62.00	11.00	190.00	**1,400.00**
	02/15/01	<1.00	140.00	140.00	190.00	**2.00**	2.30	97.00	108.00	32.30	8.20	61.00	660.00
	05/17/02	<1.00	152.00	152.00	204.00	**1.93**	2.19	99.10	109.00	31.70	7.60	62.40	713.00
	10/22/02	--	--	--	213.00	--	--	108.00	--	--	--	--	758.00
	05/22/03	<1.00	152.00	152.00	213.00	1.45	2.17	96.60	109.00	29.90	8.65	74.20	764.00
	11/26/03	<1.00	152.00	152.00	220.00	1.54	2.26	103.00	120.00	35.70	6.96	64.00	752.00
	05/13/04	<1.00	158.00	158.00	232.00	1.39	2.23	102.00	114.00	31.60	5.95	57.20	802.00
	11/17/04	<1.00	170.00	170.00	245.00	**1.73**	2.78	104.00	121.00	35.70	7.07	70.30	764.00
	05/17/05	<1.00	150.00	150.00	233.00	**1.77**	2.80	106.00	113.00	32.30	6.83	60.20	776.00
	11/17/05	<10.00	151.00	151.00	205 D1	1.20	0.26	111 D1	482.00	47.40	13.10	82.40	970 N
	05/09/06	<10.00	190.00	190.00	180.00	1.40	1.60	98.00	93.30	27.10	4.31	60.40	724.00
	11/16/06	<10.00	320.00	320.00	190.00	1.20	1.60	92.00	101.00	30.00	4.75	64.10	900.00
	05/30/07	<10.00	340.00	340.00	200.00	1.40	1.68	110.00	101.00	28.60	<5.00	62.40	820.00
	11/15/07	<10.00	189.00	189.00	**251 D1**	1.44	1.44	152 D1	104.00	33.40	6.01	84.70	**1,010.00**
	05/15/08	<1.53	374.00	374.00	**342 D1**	1.47	1.28	257 D1	106.00	52.90	11.70	165 D1	**1,140.00**
	11/06/08	<5.00	150.00	150.00	210.00	1.50	1.30	89.00	110.00	32.00	5.40	64.00	730.00
	05/20/09	<5.00	240.00	240.00	**270.00**	1.30	1.50	120.00	110.00	35.00	6.20	72.00	960.00
	11/04/09	<5.00	150.00	150.00	240.00	1.50	1.30	130.00	100.00	35.00	5.40	78.00	1,000.00
	05/07/10	<5.00	<5.00	157.00	236.00	1.18	1.62	106.00	111.00	30.70	4.59	60.30	940.00
	11/10/10	<5.00	166.00	166.00	**280.00**	1.16	1.61	112.00	98.40	36.90	5.63	81.00	812.00
	05/11/11	<5.00	157.00	157.00	**274.00**	1.11	1.99	87.20	117.00	32.20	5.63	85.00	930.00
	11/15/11	<5.00	150.00	150.00	**266.00**	1.03	6.93	94.90	128.00	32.30	4.58	62.80	**1,450.00**
	05/16/12	<5.00	163.00	163.00	**284.00**	1.12	1.58	99.90	132.00	36.80	5.22	72.90	**1,120.00**
	10/11/12	<5.00	151.00	151.00	**255.00**	1.32	1.75	98.70	113.00	34.30	5.68	67.60	**1,010.00**
	05/17/13	<5.00	154.00	154.00	**299.00**	1.34	1.61	108.00	117.00	33.70	4.57	64.60	**1,180.00**
	10/08/13	<6.00	165.00	165.00	**324.00**	1.14	1.62	103.00	154.00	41.60	5.36	78.10	**1,240.00**
	05/01/14	<10.00	156.00	156.00	**298.00**	1.05 J	1.58	111.00	135.00	41.60	5.30	75.50	**1,050.00**
Dup	05/01/14	<10.00	158.00	158.00	**301.00**	<0.10 J	1.66	112.00	134.00	42.50	5.29	79.50	**1,080.00**
	10/07/14	<4.00	163.00	163.00	249.00	0.71	1.64	108.00	127.00	36.80	4.91	67.20	**1,050.00**
	05/22/15	--	--	--	**298.00**	<8.00	--	102.00	--	--	--	--	975.00
	10/20/15	--	--	--	250.00	<4.00	--	108.00	--	--	--	--	823.00
	05/25/16	--	--	--	**307.00**	1.44	--	107.00	--	--	--	--	**1,080.00**
	10/18/16	--	--	--	**330.00**	0.86	--	103.00	--	--	--	--	**1,350.00**
	05/11/17	--	--	--	**353.00**	<0.22	--	112.00	--	--	--	--	**1,080.00**
	10/24/17	--	--	--	240.00	1.60	--	97.00	--	--	--	--	742.00
	05/22/18	--	--	--	**346.00**	0.97	--	113.00	--	--	--	--	**1,070.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	10/18/18	--	--	--	**351.00**	1.10	--	118.00	--	--	--	--	892.00
	06/20/19	--	--	--	NS	--	--	--	--	--	--	--	NS
	04/20/20	--	--	--	372.00	--	--	--	--	--	--	--	**1,050.00**
	10/12/20	--	--	--	338.00	--	--	--	--	--	--	--	986.00
	06/25/21	--	--	--	**392.00**	--	--	--	--	--	--	--	**1,010.00**
	12/07/21	--	--	--	**339.00**	--	--	--	--	--	--	--	**1,020.00**
	08/23/22	--	--	--	***376***	--	--	--	--	--	--	--	***1,010***
	12/21/22	--	--	--	***406***	--	--	--	--	--	--	--	***1,120 J3***
Dup	12/21/22	--	--	--	218	--	--	--	--	--	--	--	*828*
	07/20/23	--	--	--	**364**	--	--	--	--	--	--	--	**1,210**
	11/14/23	--	--	--	**364**	--	--	--	--	--	--	--	**1,180**
MW-11	01/22/99	30.00	<1.00	30.00	46.00	**2.30**	4.20	94.00	33.00	7.00	9.10	58.00	370.00
	02/15/01	<1.00	156.00	156.00	37.00	**2.40**	2.40	120.00	64.00	19.10	7.83	50.10	360.00
	05/16/02	<1.00	160.00	160.00	31.90	**2.13**	2.33	98.80	63.50	17.20	4.83	47.00	444.00
	10/23/02	--	--	--	37.20	--	--	102.00	--	--	--	--	447.00
	05/22/03	12.00	154.00	166.00	32.30	**1.74**	2.28	96.70	62.30	0.00	4.63	47.60	437.00
	11/26/03	<1.00	160.00	160.00	32.40	**1.83**	2.23	96.40	59.20	16.60	4.67	48.60	448.00
	05/12/04	<1.00	164.00	164.00	34.60	**1.71**	2.38	97.70	54.80	15.70	4.28	46.20	457.00
	11/16/04	<1.00	160.00	160.00	39.00	**2.17**	2.81	100.00	65.20	16.80	5.14	54.30	454.00
	05/17/05	4.00	158.00	162.00	43.10	**1.87**	2.82	94.60	68.40	16.90	6.45	44.00	429.00
	11/17/05	<10.0	161.00	161.00	58.10	1.50	2.10	91.3 D1	75.00	17.70	4.55	64.70	700 N
	05/09/06	<10.00	180.00	180.00	37.00	**1.80**	1.70	100.00	54.10	16.20	3.26	46.90	456.00
	11/14/06	<10.00	170.00	170.00	34.00	**1.80**	1.80	110.00	58.00	18.20	4.13	53.40	532.00
	05/30/07	<10.00	142.00	142.00	36.00	**1.90**	1.79	120.00	54.00	16.70	<5.00	50.80	456.00
	11/14/07	<10.00	189.00	189.00	42.30	**1.98**	1.54	95.6 D1	57.20	17.40	<5.000	52.40	452.00
	05/15/08	<1.53	177.00	177.00	72.4 D1	**1.86**	1.71	141.00	58.00	19.40	4.93	66.5 D1	544.00
	11/04/08	<5.00	170.00	170.00	49.00	1.50	1.30	90.00	60.00	16.00	3.60	47.00	440.00
	05/20/09	<5.00	360.00	360.00	40.00	**2.20**	1.70	130.00	51.00	17.00	4.50	53.00	450.00
	11/04/09	<5.00	150.00	150.00	43.00	1.60	1.60	100.00	52.00	15.00	2.90	42.00	470.00
	05/07/10	<5.00	<5.00	167.00	36.50	**1.97**	1.78	117.00	49.70	14.90	3.42	44.70	494.00
	11/09/10	<5.00	269.00	269.00	52.50	1.45	1.79	95.40	61.00	16.70	3.56	50.00	438.00
	05/11/11	<5.00	161.00	161.00	133.00	1.43	2.08	140.00	78.10	37.00	6.32	103.00	664.00
Dup	05/11/11	<5.00	161.00	161.00	130.00	1.44	2.01	137.00	77.40	37.00	6.29	104.00	706.00
	11/10/11	<5.00	162.00	162.00	38.80	**1.86**	1.49	97.10	66.20	17.90	3.62	52.30	420.00
	05/17/12	<5.00	176.00	176.00	45.80	1.29	1.62	88.50	63.60	16.30	3.66	53.40	456.00
	10/11/12	<5.00	166.00	166.00	44.60	1.49	1.74	95.10	55.80	15.80	3.80	49.30	440.00
	05/17/13	<5.00	171.00	171.00	43.60	**1.87**	1.67	106.00	57.70	14.80	3.18	42.90	428.00
	10/08/13	<6.00	178.00	178.00	45.20	1.55	1.74	95.50	60.90	16.10	3.33	52.00	450.00
	05/01/14	<10.00	173.00	173.00	63.30	<0.10	2.06	93.30	64.40	17.60	3.38	51.50	434.00
	10/07/14	<4.00	176.00	176.00	34.70	1.10	1.71	101.00	59.20	16.70	3.06	46.50	399.00
	05/22/15	--	--	--	40.40	<4.00	--	87.20	--	--	--	--	428.00
	10/20/15	--	--	--	37.60	<2.00	--	89.30	--	--	--	--	356.00
	05/25/16	--	--	--	34.30	**1.87**	--	103.00	--	--	--	--	475.00
	10/18/16	--	--	--	39.30	0.87	--	96.40	--	--	--	--	418.00
	05/11/17	--	--	--	35.10	<0.11	--	110.00	--	--	--	--	416.00
	10/24/17	--	--	--	35.10	**1.87**	--	95.30	--	--	--	--	438.00
	05/22/18	--	--	--	34.60	1.58	--	110.00	--	--	--	--	421.00
Dup	05/22/18	--	--	--	34.50	**1.64**	--	110.00	--	--	--	--	415.00
	10/18/18	--	--	--	36.90	**1.69**	--	114.00	--	--	--	--	413.00
	06/20/19	--	--	--	34.40	--	--	--	--	--	--	--	407.00
	04/20/20	--	--	--	29.00	--	--	--	--	--	--	--	394.00
	06/25/21	--	--	--	37.30	--	--	--	--	--	--	--	431.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/24/22	--	--	--	35.70	--	--	--	--	--	--	--	410.00
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/21/23	--	--	--	35.0	--	--	--	--	--	--	--	410 B
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
MW-12*	05/15/02	<1.00	160.00	160.00	58.30	1.09	2.44	91.30	53.50	15.90	5.52	50.30	462.00
	10/23/02	--	--	--	65.00	--	--	102.00	--	--	--	--	477.00
	05/22/03	<1.00	148.00	148.00	91.10	1.04	2.30	87.70	74.20	21.00	4.89	57.60	516.00
	11/25/03	<1.00	142.00	142.00	93.10	1.18	2.36	90.90	74.70	20.90	5.41	52.50	548.00
	05/12/04	<1.00	458.00	458.00	72.90	1.04	2.35	86.70	58.10	19.00	5.92	51.80	489.00
	11/15/04	<1.00	184.00	184.00	79.80	1.39	2.83	88.80	59.70	21.50	16.50	77.40	512.00
	11/17/05	<10.00	151.00	151.00	109.00	0.93	0.12	94.6 D1	193.00	26.60	13.40	87.50	700.00
	11/16/06	<10.00	270.00	270.00	120.00	0.71	1.70	84.00	82.30	27.00	4.82	62.20	620.00
	11/16/07	<10.00	170.00	170.00	**258.00**	1.21	1.55	191 D1	77.20	42.70	11.00	154.00	**1,270.00**
	11/06/08	<5.00	130.00	130.00	110.00	0.89	1.40	79.00	61.00	20.00	4.50	52.00	460.00
	11/03/09	<25.00	2,000.00	2,000.00	120.00	0.87	1.60	98.00	68.00	24.00	6.00	79.00	600.00
	11/09/10	<5.00	144.00	144.00	211.00	0.57	1.76	89.80	75.60	27.80	4.60	60.60	712.00

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	11/10/11	<5.00	134.00	134.00	179.00	0.46	1.37	92.80	93.80	27.80	4.53	64.00	594.00
	10/11/12	<5.00	145.00	145.00	179.00	0.71	0.79	86.50	80.40	25.40	5.44	62.90	724.00
	10/08/13	<6.00	160.00	160.00	246.00	0.62	1.64	84.50	110.00	30.40	4.92	67.80	944.00
	10/07/14	<4.00	145.00	145.00	200.00	0.29	1.70	86.80	93.10	29.30	5.06	65.00	765.00
	10/21/15	--	--	--	165.00	<4.00	--	72.60	--	--	--	--	487.00
	10/18/16	--	--	--	**270.00**	<0.50	--	95.00	--	--	--	--	888.00
	10/24/17	--	--	--	150.00	<0.50	--	64.90	--	--	--	--	579.00
Dup	10/24/17	--	--	--	149.00	<0.50	--	64.80	--	--	--	--	565.00
	10/18/18	--	--	--	**290.00**	0.74	--	106.00	--	--	--	--	790.00
	06/20/19	--	--	--	**254.00**	--	--	--	--	--	--	--	580.00
	04/20/20	--	--	--	245.00	--	--	--	--	--	--	--	902.00
	10/12/20	--	--	--	**254.00**	--	--	--	--	--	--	--	732.00
	06/25/21	--	--	--	**461.00**	--	--	--	--	--	--	--	984.00
	12/06/21	--	--	--	**361.00**	--	--	--	--	--	--	--	**1,130.00**
	08/24/22	--	--	--	**489**	--	--	--	--	--	--	--	**1,040**
	12/21/22	--	--	--	**482**	--	--	--	--	--	--	--	**1,280**
	07/21/23	--	--	--	**469**	--	--	--	--	--	--	--	**1,300**
	11/13/23	--	--	--	**447**	--	--	--	--	--	--	--	**1,470**
MW-13*	05/13/02	<1.00	100.00	100.00	**517.00**	<1.00	1.61	437.00	116.00	76.00	19.40	269.00	**1,596.00**
	10/23/02	--	--	--	**549.00**	--	--	370.00	--	--	--	--	**1,740.00**
	05/22/03	<1.00	186.00	186.00	**944.00**	<2.00	2.33	361.00	289.00	101.00	15.30	458.00	**3,060.00**
	11/25/03	<1.00	226.00	226.00	**1,460.00**	<2.00	2.22	372.00	369.00	117.00	20.00	478.00	**3,445.00**
	05/12/04	<1.00	234.00	234.00	**1,550.00**	<4.00	4.58	369.00	384.00	114.00	18.60	485.00	**4,240.00**
	11/15/04	<1.00	226.00	226.00	**1,870.00**	<2.00	4.92	384.00	510.00	164.00	16.50	627.00	**3,600.00**
	11/17/05	<10.00	201.00	201.00	**722.00**	1.00	2.50	206 D1	786.00	91.60	19.70	276.00	**2,350.00**
	11/16/06	<10.00	1,500.00	1,500.00	**2,000.00**	<0.50 N	2.70	500 N	529.00	176.00	14.20	493.00	**5,060.00**
	11/16/07	<10.00	236.00	236.00	**2,000.00**	0.33	3.05 D1	312 D1	361.00	105.00	11.40	553 D1	**6,320.00**
	11/06/08	<5.00	180.00	180.00	**970.00**	0.98	1.80	280.00	240.00	96.00	17.00	370.00	**2,400.00**
	11/03/09	<25.00	15,000.00	15,000.00	**2,200.00**	<0.50	2.60	440.00	490.00	180.00	22.00	490.00	**5,600.00**
	11/09/10	<5.00	267.00	267.00	**1,680.00**	0.22	2.82	405.00	400.00	120.00	10.40	540.00	**4,270.00**
	11/10/11	<5.00	206.00	206.00	**2,110.00**	0.18	<0.50	273.00	690.00	223.00	13.20	472.00	**4,870.00**
	10/11/12	<5.00	204.00	204.00	**2,360.00**	0.31	2.70	422.00	706.00	228.00	14.40	423.00	**6,290.00**
	10/08/13	<6.00	1,780.00	1,780.00	**2,710.00**	0.30	2.59	448.00	768.00	225.00	14.00	457.00	**7,320.00**
	10/07/14	<4.00	267.00	267.00	**1,430.00**	<0.10	1.91	379.00	355.00	109.00	11.30	612.00	**3,940.00**
	10/21/15	--	--	--	**1,400.00**	<40.0	--	353.00	--	--	--	--	**3,260.00**
	10/18/16	--	--	--	**1,940.00**	<0.50	--	440.00	--	--	--	--	**5,310.00**
	Well Plugged and Abandoned on 7/11/2017												
MW-14	10/08/13	<6.00	267.00	267.00	162.00	**3.69**	<0.10	127.00	74.40	32.30	8.42	145.00	854.00
Dup	10/08/13	<6.00	271.00	271.00	166.00	**3.74**	<0.10	130.00	60.70	26.30	7.97	145.00	848.00
	05/01/14	<10.00	199.00	199.00	64.00	1.19 J	<0.10	84.90	60.80	21.70	3.82	59.80	468.00
	10/07/14	<4.00	227.00	2,227.00	95.20	0.79	<0.023	22.90	71.30	24.90	3.99	61.80	460.00
Dup	10/07/14	<4.00	194.00	194.00	55.70	1.36	<0.023	88.80	59.30	19.10	3.21	49.50	490.00
	05/22/15	--	--	--	77.80	<4.00	--	45.40	--	--	--	--	468.00
Dup	05/22/15	--	--	--	77.40	<4.00	--	49.00	--	--	--	--	470.00
	10/20/15	--	--	--	29.1 J	<2.00	--	53.5 J	--	--	--	--	294.00
Dup	10/21/15	--	--	--	58.9 J	<2.00	--	101 J	--	--	--	--	407.00
	05/25/16	--	--	--	79.00	1.37	--	19.90	--	--	--	--	552.00
	10/18/16	--	--	--	51.80	1.07	--	104.00	--	--	--	--	422.00
Dup	10/18/16	--	--	--	61.20	1.25	--	108 J	--	--	--	--	459.00
	05/11/17	--	--	--	70.50	<0.11	--	17.70	--	--	--	--	412.00
	10/24/17	--	--	--	57.40	**1.77**	--	42.20	--	--	--	--	423.00
	05/22/18	--	--	--	54.90	1.20	--	47.80	--	--	--	--	390.00
	10/18/18	--	--	--	57.20	1.35	--	47.20	--	--	--	--	401.00
	06/20/19	--	--	--	42.10	--	--	--	--	--	--	--	481.00
	11/24/19	--	--	--	37.10	--	--	94.50	--	--	--	--	328.00
	04/20/20	--	--	--	46.00	--	--	--	--	--	--	--	400.00
	06/25/21	--	--	--	42.30	--	--	--	--	--	--	--	429.00
	12/06/21	--	--	--	--	--	--	--	--	--	--	--	--
	08/23/22	--	--	--	48.00	--	--	--	--	--	--	--	**1,090.00**
	12/21/22	--	--	--	--	--	--	--	--	--	--	--	--
	07/20/23	--	--	--	57.5	--	--	--	--	--	--	--	471
	11/13/23	--	--	--	--	--	--	--	--	--	--	--	--
RW-1	05/27/99	0.00	224.00	224.00	**8,700.00**	**2.70**	7.00	**840.00**	679.00	521.00	34.00	3,290.00	**14,000.00**
	05/22/03	<1.00	190.00	190.00	**2,410.00**	**2.46**	4.23	345.00	162.00	145.00	25.40	1,180.00	**5,260.00**
	11/26/03	<1.00	184.00	184.00	**1,990.00**	<4.00	**20.00**	324.00	199.00	147.00	38.60	1,080.00	**5,050.00**
	05/11/04	<1.00	148.00	148.00	**491.00**	1.32	2.65	109.00	66.30	23.40	11.20	252.00	**1,224.00**
	11/17/04	<1.00	160.00	160.00	**633.00**	**1.65**	3.23	121.00	89.70	43.50	18.00	382.00	**1,314.00**
	11/17/05	<10.00	221.00	221.00	**895.00**	1.00	1.40	166 D1	122.00	70.90	8.40	493.00	**2,380.00**
	11/16/06	<10.00	380.00	380.00	**11,000.00**	<0.50	<20.00 HC	**1,100.00**	539.00	694.00	43.30	5,580.00	**22,000.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	11/15/07	<10.00	359.00	359.00	**2,380.00**	1.26	3.74 D1	252 D1	141.00	137.00	16.00	1,100 D1	**5,280.00**
Dup	11/15/07	<10.00	208.00	208.00	**2,620.00**	1.24	3.85 D1	316 D1	136.00	133.00	15.50	1,040 D1	**5,360.00**
	11/12/08	<5.00	210.00	210.00	**370.00**	0.82	1.90	97.00	66.00	34.00	5.00	190.00	920.00
	11/04/09	<5.00	170.00	170.00	**1,700.00**	1.10	2.60	250.00	110.00	120.00	22.00	750.00	**3,800.00**
	11/11/10	<5.00	192.00	192.00	**1,340.00**	0.72	2.72	204.00	95.50	104.00	12.60	792.00	**2,830.00**
	11/10/11	<5.00	396.00	396.00	**14,000.00**	**3.32**	9.16	**1,540.00**	942.00	1,260.00	44.60	8,720.00	**32,200.00**
	10/11/12	<5.00	263.00	263.00	**6,530.00**	**2.19**	4.75	**625.00**	314.00	445.00	28.00	3,490.00	**10,100.00**
Dup	10/11/12	<5.00	286.00	286.00	**2,440.00**	0.31	1.23	194.00	128.00	156.00	18.60	1,260.00	**17000****
	10/08/13	<6.00	285.00	285.00	**6,050.00**	0.95	4.29	546.00	760.00	919.00	39.00	6,370.00	**11,200.00**
Dup	10/08/13	<6.00	216.00	216.00	**10,500.00**	1.27	5.98	**926.00**	490.00	581.00	31.40	4,170.00	**1870****
	10/07/14	<4.00	207.00	207.00	**2,240.00**	1.36	3.62	338.00	69.60	106.00	24.00	1,130.00	**2,760.00**
Dup	10/07/14	<4.00	192.00	192.00	**2,570.00**	**2.51**	3.70	363.00	82.30	125.00	26.80	1,350.00	**1970****
	10/21/15	--	--	--	**9,110.00**	<80.00	--	**953 J**	--	--	--	--	**15,300.00**
Dup	10/20/15	--	--	--	**10,200.00**	<200.00	--	**1,120 J**	--	--	--	--	**21,600.00**
	12/15/15	--	--	--	**1,130.00**	--	--	--	--	--	--	--	**2,290.00**
	12/16/15	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,580.00**
	12/17/15	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,260.00**
	12/18/15	--	--	--	**988.00**	--	--	--	--	--	--	--	**2,350.00**
	01/04/16	--	--	--	**1,200.00**	--	--	--	--	--	--	--	**2,280.00**
	01/05/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,190.00**
	01/06/16	--	--	--	**1,120.00**	--	--	--	--	--	--	--	**2,240.00**
	01/07/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,200.00**
	01/08/16	--	--	--	**1,310.00**	--	--	--	--	--	--	--	**2,370.00**
	01/11/16	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,210.00**
	01/12/16	--	--	--	**1,520.00**	--	--	--	--	--	--	--	**2,850.00**
	10/18/16	--	--	--	**277.00**	<0.50	--	87.50	--	--	--	--	715.00
Dup	10/18/16	--	--	--	**316.00**	<0.50	--	88.9 J	--	--	--	--	922.00
	10/25/17	--	--	--	**254.00**	1.02	--	75.50	--	--	--	--	**2,040.00**
	10/16/18***	--	--	--	**304.00**	0.61	--	93.40	--	--	--	--	757.00
	10/18/18	--	--	--	**7,870.00**	<0.10	--	**807.00**	--	--	--	--	**15,400.00**
Dup	10/18/18	--	--	--	**7,830.00**	<0.10	--	**873.00**	--	--	--	--	**12,700.00**
	06/20/19	--	--	--	**9,290.00**	--	--	--	--	--	--	--	**22,100.00**
Dup	06/20/19	--	--	--	**9,200.00**	--	--	--	--	--	--	--	**22,800.00**
	04/20/20	--	--	--	**9,640.00**	--	--	--	--	--	--	--	**12,700.00**
	10/12/20	--	--	--	**8,470.00**	--	--	--	--	--	--	--	**14,900.00**
	06/25/21	--	--	--	**7,370.00**	--	--	--	--	--	--	--	**13,500.00**
	12/06/21	--	--	--	**7,440.00**	--	--	--	--	--	--	--	**9,490.00**
	08/23/22	--	--	--	***8,180***	--	--	--	--	--	--	--	**6,920**
	12/21/22	--	--	--	**5,070**	--	--	--	--	--	--	--	**3,940**
	07/20/23	--	--	--	**3,440**	--	--	--	--	--	--	--	**2,790**
Dup	07/20/23	--	--	--	**4,340**	--	--	--	--	--	--	--	**3,190**
	11/13/23	--	--	--	**2,160**	--	--	--	--	--	--	--	**6,540**
Dup	11/13/23	--	--	--	**1,810**	--	--	--	--	--	--	--	**3,530**
RW-2	05/22/03	324.00	<4.00	780.00	**1,580.00**	<2.00	2.43	23.90	1,060.00	<0.500	20.20	258.00	**4,310.00**
	11/26/03	64.00	<4.00	704.00	**1,480.00**	<5.00	5.81	38.30	988.00	<0.500	23.80	240.00	**3,535.00**
	11/17/04	104.00	<4.00	692.00	**2,280.00**	<10.00	<10.00	116.00	1,180.00	<0.500	18.50	415.00	**3,915.00**
	11/17/05	281.00	<10.00	422.00	**1,770.00**	0.89	0.60	175 D1	861.00	16.60	13.10	361.00	**7,350.00**
	11/16/06	49.00	150.00	199.00	**2,500.00**	0.57	1.90	370.00	978.00	48.80	18.00	437.00	**5,270.00**
	11/15/07	170.00	37.80	208.00	**1,680.00**	0.49	1.52	166 D1	586.00	<5.000	11.20	245.00	**5,590.00**
	11/12/08	150.00	<5.00	390.00	**2,500.00**	<0.50	0.24	250.00	1,200.00	<0.38	6.00	400.00	**4,800.00**
	11/04/09	34.00	<5.00	220.00	**2,200.00**	<0.50	1.70	240.00	940.00	0.18	16.00	420.00	**6,300.00**
	11/11/10	113.00	<5.00	172.00	**2,100.00**	<0.50	2.03	233.00	967.00	4.06	8.86	426.00	**4,550.00**
	11/10/11	36.90	<5.00	384.00	**4,330.00**	<10.00	2.13	305.00	2,040.00	1.12	18.70	711.00	**8,300.00**
	10/11/12	27.10	<5.00	202.00	**1,920.00**	<0.50	1.93	223.00	842.00	0.46	9.30	385.00	**6,680.00**
Dup	10/11/12	31.90	<5.00	206.00	**2,310.00**	<0.50	1.98	228.00	1,090.00	2.42	10.50	430.00	**5,250.00**
	10/08/13	66.30	<6.00	117.00	**2,450.00**	0.14	2.36	309.00	1,570.00	2.15	15.30	639.00	**4,420.00**
	10/07/14	35.20	<4.00	35.20	**2,250.00**	<0.10	2.52	378.00	995.00	21.60	10.30	408.00	**3,090.00**
	10/20/15	--	--	--	**699.00**	<20.00	--	118.00	--	--	--	--	**2,190.00**
	12/15/15	--	--	--	**1,130.00**	--	--	--	--	--	--	--	**2,290.00**
	12/16/15	--	--	--	**1,190.00**	--	--	--	--	--	--	--	**2,580.00**
	12/17/15	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,260.00**
	12/18/15	--	--	--	**988.00**	--	--	--	--	--	--	--	**2,350.00**
	01/04/16	--	--	--	**1,200.00**	--	--	--	--	--	--	--	**2,280.00**
	01/05/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,190.00**
	01/06/16	--	--	--	**1,120.00**	--	--	--	--	--	--	--	**2,240.00**
	01/07/16	--	--	--	**1,080.00**	--	--	--	--	--	--	--	**2,200.00**
	01/08/16	--	--	--	**1,310.00**	--	--	--	--	--	--	--	**2,370.00**
	01/11/16	--	--	--	**1,030.00**	--	--	--	--	--	--	--	**2,210.00**
	01/12/16	--	--	--	**1,520.00**	--	--	--	--	--	--	--	**2,850.00**

Appendix C
Cumulative Summary of Groundwater Analytical Results
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride[1]	Fluoride[2]	Nitrate - N[2]	Sulfate[1]	Calcium	Magnesium	Potassium	Sodium	TDS[1]
NMWQCC Groundwater Standard					***250***	***1.60***	***10***	***600.00***					***1,000***
	10/18/16	--	--	--	**1,450.00**	<0.50	--	270.00	--	--	--	--	**3,910.00**
	10/25/17	--	--	--	**1,760.00**	<5.00	--	288.00	--	--	--	--	**4,440.00**
	10/18/18	--	--	--	**3,640.00**	<0.10	--	534.00	--	--	--	--	**6,890.00**
	06/20/19	--	--	--	**3,180.00**	--	--	--	--	--	--	--	**10,200 H**
	04/20/20	--	--	--	**3,610.00**	--	--	--	--	--	--	--	**7,890.00**
	10/12/20	--	--	--	**3,070.00**	--	--	--	--	--	--	--	**5,140.00**
Dup	10/12/20	--	--	--	**2,990.00**	--	--	--	--	--	--	--	**5,460.00**
	06/25/21	--	--	--	**1,150.00**	--	--	--	--	--	--	--	**2,270.00**
Dup	06/25/21	--	--	--	**1,690.00**	--	--	--	--	--	--	--	**3,340.00**
	12/07/21	--	--	--	**582.00**	--	--	--	--	--	--	--	**1,040.00**
Dup	12/07/21	--	--	--	**567.00**	--	--	--	--	--	--	--	**1,250.00**
	08/23/22				**948**	--	--	--	--	--	--	--	***2,390***
Dup	08/23/22	--	--	--	**1,390**	--	--	--	--	--	--	--	***3,860***
	12/21/22	--	--	--	232	--	--	--	--	--	--	--	824 J3
	07/20/23	--	--	--	**2,910**	--	--	--	--	--	--	--	**4,950**
Dup	07/20/23	--	--	--	**2,840**	--	--	--	--	--	--	--	**4,310**
	11/14/23	--	--	--	**890**	--	--	--	--	--	--	--	**2,640**
RW-2R	10/08/13	<6.00	146.00	146.00	**6,550.00**	0.45	1.79	**762.00**	1,850.00	616.00	25.50	1,350.00	**14,600.00**
	10/07/14	<4.00	169.00	169.00	**5,400.00**	1.56	2.17	**707.00**	1,280.00	470.00	20.90	1,170.00	**13,200.00**
	10/20/15	--	--	--	**5,990.00**	<80.00	--	**806.00**	--	--	--	--	**16,200.00**
	10/18/16	--	--	--	**6,390.00**	<0.50	--	**797.00**	--	--	--	--	**15,200.00**
	10/25/17	--	--	--	**7,030.00**	<5.00	--	**872.00**	--	--	--	--	**12,300.00**
	10/16/18***	--	--	--	**1,960.00**	<0.10	--	467.00	--	--	--	--	**3,380.00**
	10/18/18	--	--	--	**7,920.00**	<0.10	--	**891.00**	--	--	--	--	**13,700.00**
Dup	10/18/18	--	--	--	**8,060.00**	<0.10	--	**815.00**	--	--	--	--	**13,300.00**
	06/20/19	--	--	--	**7,860.00**	--	--	--	--	--	--	--	**29,400.00**
	04/20/20	--	--	--	**9,210.00**	--	--	--	--	--	--	--	**21,500.00**
	10/12/20	--	--	--	**7,860.00**	--	--	--	--	--	--	--	**13,800.00**
	06/25/21	--	--	--	**7,250.00**	--	--	--	--	--	--	--	**12,400.00**
	12/07/21	--	--	--	**7,400.00**	--	--	--	--	--	--	--	**6,330.00**
	08/23/22	--	--	--	**8,070**	--	--	--	--	--	--	--	**10,100**
	12/21/22	--	--	--	**7,480**	--	--	--	--	--	--	--	**14,600**
	07/20/23	--	--	--	**8,290**	--	--	**904**	--	--	--	--	**17,100**
	11/14/23	--	--	--	**8,300**	--	--	--	--	--	--	--	**13,500**

Notes:
1. Bold and Italics value indicates a laboratory detection and New Mexico Water Quality Control Commission (NMWQCC) exceedance.
2. Results shown in mg/L.
3. NS - Not Sampled.
4. D1 - The analysis was performed at a dilution due to the high analyte concentration.
5. B - The same anlayte is found in the associated blank.
6. H - The analysis was performed past holding time.
7. C - Elevated detection limit due to matrix effect.
8. J - Estimated Concentration.
9. J3 - The associated batch QC was outside the established quality control range for precision.
10. < - Analyte detected below quantitation limit.
11. [1] Human Health Standards for Groundwater.
12. [2] Other Standards for Domestic Water Supply.
13. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.
14. ** - Reported TDS concentration includes a low bias. Not used in trend comparison.
15. *** - Indicates groundwater monitor well that was sampled prior to semiannual groundwater event via low-flow purge for internal use.

Appendix D

Cumulative Summary of Groundwater Potentiometric Elevation Data

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-1	05/18/98	135.05	3184.95	173.00	2.00	153-173
3320.00	05/25/99	134.93	3185.07	---	---	---
	02/08/01	134.80	3185.20	---	---	---
	05/10/02	134.77	3185.23	---	---	---
	10/22/02	134.89	3185.11	---	---	---
	05/20/03	135.17	3184.83	---	---	---
	11/24/03	134.70	3185.30	---	---	---
	05/11/04	134.75	3185.25	---	---	---
	11/15/04	134.76	3185.24	---	---	---
	05/17/05	134.29	3185.71	---	---	---
	11/15/05	134.93	3185.07	---	---	---
	05/08/06	134.68	3185.32	---	---	---
	11/13/06	134.62	3185.38	---	---	---
	05/29/07	134.71	3185.29	---	---	---
	11/16/07	134.70	3185.30	---	---	---
	05/14/08	134.73	3185.27	---	---	---
	11/03/08	134.69	3185.31	---	---	---
	05/19/09	134.64	3185.36	---	---	---
	11/02/09	134.71	3185.29	---	---	---
	05/05/10	134.90	3185.10	---	---	---
	11/08/10	134.50	3185.50	---	---	---
	05/11/11	134.60	3185.40	---	---	---
	11/08/11	134.64	3185.36	---	---	---
	05/16/12	134.60	3185.40	---	---	---
	10/10/12	134.73	3185.27	---	---	---
	05/16/13	134.58	3185.42	---	---	---
	10/08/13	134.53	3185.47	---	---	---
	05/01/14	134.70	3185.30	---	---	---
	10/05/14	134.49	3185.51	---	---	---
	05/21/15	134.56	3185.44	---	---	---
	10/19/15	134.80	3185.20	---	---	---
	05/25/16	134.69	3185.31	---	---	---
	10/17/16	134.35	3185.65	---	---	---
	05/10/17	134.44	3185.56	---	---	---
3321.94	10/24/17	134.63	3187.31	---	---	---
	05/22/18	134.45	3187.49	---	---	---
	10/17/18	134.54	3187.40	---	---	---
	06/20/19	134.56	3187.38	171.17	---	---
	04/13/20	134.56	3187.38	---	---	---
	10/12/20	134.72	3187.22	---	---	---
	06/21/21	134.58	3187.36	---	---	---
	12/06/21	134.57	3187.37	---	---	---
	08/22/22	134.47	3187.47	---	---	---
	12/21/22	134.38	3187.56	---	---	---
	07/20/23	134.52	3187.42	---	---	---
	11/13/23	134.45	3187.49	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-2	05/18/98	135.00	3184.86	173.00	2.00	163-173
3319.86	05/25/99	134.79	3185.07	---	---	---
	02/08/01	134.63	3185.23	---	---	---
	05/10/02	134.65	3185.21	---	---	---
	10/22/02	134.72	3185.14	---	---	---
	05/20/03	134.95	3184.91	---	---	---
	11/24/03	134.56	3185.30	---	---	---
	05/11/04	134.55	3185.31	---	---	---
	11/15/04	134.53	3185.33	---	---	---
	05/17/05	134.39	3185.47	---	---	---
	11/15/05	134.77	3185.09	---	---	---
	05/08/06	134.52	3185.34	---	---	---
	11/13/06	134.44	3185.42	---	---	---
	05/29/07	134.54	3185.32	---	---	---
	11/14/07	134.52	3185.34	---	---	---
	05/14/08	134.53	3185.33	---	---	---
	11/03/08	134.44	3185.42	---	---	---
	05/19/09	134.46	3185.40	---	---	---
	11/16/09	134.51	3185.35	---	---	---
	05/05/10	134.62	3185.24	---	---	---
	11/08/10	134.25	3185.61	---	---	---
	05/11/11	134.31	3185.55	---	---	---
	11/08/11	134.36	3185.50	---	---	---
	05/16/12	134.31	3185.55	---	---	---
	10/10/12	134.51	3185.35	---	---	---
	05/16/13	134.33	3185.53	---	---	---
	10/07/13	142.85	3177.01	---	---	---
	05/01/14	134.37	3185.49	---	---	---
	10/05/14	134.14	3185.72	---	---	---
	05/21/15	134.21	3185.65	---	---	---
	10/19/15	134.20	3185.66	---	---	---
	05/25/16	134.38	3185.48	---	---	---
	10/17/16	134.00	3185.86	---	---	---
	05/10/17	134.13	3185.73	---	---	---
3321.27	10/25/17	134.32	3186.95	---	---	---
	05/22/18	134.11	3187.16	---	---	---
	10/17/18	134.21	3187.06	---	---	---
	06/20/19	134.27	3187.00	168.39	---	---
	04/13/20	134.2	3187.07	---	---	---
	10/12/20	134.49	3186.78	---	---	---
	06/21/21	134.39	3186.88	---	---	---
	12/06/21	134.21	3187.06	---	---	---
	08/22/22	134.16	3187.11	---	---	---
	12/21/22	143.07	3178.20	---	---	---
	07/20/23	134.20	3187.07	---	---	---
	11/13/23	134.11	3187.16	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-2A	05/18/98	134.80	3185.06	145.00	2.00	130-145
3319.86	05/25/99	134.73	3185.13	---	---	---
	02/08/01	134.58	3185.28	---	---	---
	05/10/02	134.50	3185.36	---	---	---
	10/22/02	134.66	3185.20	---	---	---
	05/20/03	135.80	3184.06	---	---	---
	11/24/03	134.60	3185.26	---	---	---
	05/11/04	134.53	3185.33	---	---	---
	11/15/04	134.58	3185.28	---	---	---
	05/17/05	134.47	3185.39	---	---	---
	11/15/05	134.74	3185.12	---	---	---
	05/08/06	134.46	3185.40	---	---	---
	11/13/06	134.39	3185.47	---	---	---
	05/29/07	134.50	3185.36	---	---	---
	11/14/07	134.48	3185.38	---	---	---
	05/14/08	134.49	3185.37	---	---	---
	11/03/08	134.46	3185.40	---	---	---
	05/19/09	134.42	3185.44	---	---	---
	11/02/09	134.45	3185.41	---	---	---
	05/05/10	134.52	3185.34	---	---	---
	11/08/10	134.30	3185.56	---	---	---
	05/11/11	134.38	3185.48	---	---	---
	11/08/11	134.42	3185.44	---	---	---
	05/16/12	134.43	3185.43	---	---	---
	10/10/12	134.65	3185.21	---	---	---
	05/16/13	134.35	3185.51	---	---	---
	10/07/13	134.20	3185.66	---	---	---
	05/01/14	134.45	3185.41	---	---	---
	10/05/14	134.15	3185.71	---	---	---
	05/21/15	134.32	3185.54	---	---	---
	10/19/15	134.40	3185.46	---	---	---
	05/25/16	134.49	3185.37	---	---	---
	10/17/16	134.10	3185.76	---	---	---
	05/10/17	134.29	3185.57	---	---	---
3321.30	10/25/17	134.40	3186.90	---	---	---
	05/22/18	134.31	3186.99	---	---	---
	10/17/18	134.31	3186.99	---	---	---
	06/20/19	134.43	3186.87	142.47	---	---
	04/13/20	134.29	3187.01	---	---	---
	10/12/20	134.45	3186.85	---	---	---
	06/21/21	134.29	3187.01	---	---	---
	12/06/21	134.29	3187.01	---	---	---
	08/22/22	134.23	3187.07	---	---	---
	12/21/22	134.14	3187.16	---	---	---
	07/20/23	134.25	3187.05	---	---	---
	11/13/23	134.19	3187.11	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-3	05/18/98	132.65	3185.56	171.00	2.00	161-171
3318.21	05/25/99	132.52	3185.69	---	---	---
	02/08/01	132.40	3185.81	---	---	---
	05/10/02	132.40	3185.81	---	---	---
	10/22/02	132.49	3185.72	---	---	---
	05/20/03	132.75	3185.46	---	---	---
	11/24/03	132.29	3185.92	---	---	---
	05/11/04	132.38	3185.83	---	---	---
	11/15/04	132.46	3185.75	---	---	---
	05/17/05	132.32	3185.89	---	---	---
	11/15/05	132.55	3185.66	---	---	---
	05/08/06	132.32	3185.89	---	---	---
	11/13/06	132.27	3185.94	---	---	---
	05/29/07	132.36	3185.85	---	---	---
	11/16/07	132.34	3185.87	---	---	---
	05/14/08	132.36	3185.85	---	---	---
	11/03/08	132.31	3185.90	---	---	---
	05/19/09	132.25	3185.96	---	---	---
	11/02/09	132.37	3185.84	---	---	---
	05/05/10	132.48	3185.73	---	---	---
	11/08/10	132.14	3186.07	---	---	---
	05/11/11	132.24	3185.97	---	---	---
	11/08/11	132.30	3185.91	---	---	---
	05/16/12	132.25	3185.96	---	---	---
	10/10/12	132.54	3185.67	---	---	---
	05/16/13	132.25	3185.96	---	---	---
	10/08/13	132.14	3186.07	---	---	---
	05/01/14	132.10	3186.11	---	---	---
	10/05/14	132.58	3185.63	---	---	---
	05/21/15	132.25	3185.96	---	---	---
	10/19/15	132.25	3185.96	---	---	---
	05/25/16	132.34	3185.87	---	---	---
	10/17/16	132.00	3186.21	---	---	---
	05/10/17	132.21	3186.00	---	---	---
3320.08	10/24/17	132.30	3187.78	---	---	---
	05/22/18	132.15	3187.93	---	---	---
	10/17/18	132.21	3187.87	---	---	---
	06/20/19	132.24	3187.84	171.93	---	---
	04/13/20	132.32	3187.76	---	---	---
	10/12/20	132.36	3187.72	---	---	---
	06/22/21	132.12	3187.96	---	---	---
	12/06/21	132.16	3187.92	---	---	---
	08/22/22	132.03	3188.05	---	---	---
	12/21/22	132.00	3188.08	---	---	---
	07/21/23	132.21	3187.87	---	---	---
	11/13/23	132.07	3188.01	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-4	05/18/98	136.01	3183.73	171.00	2.00	161-171
3319.74	05/25/99	135.57	3184.17	---	---	---
	02/08/01	135.87	3183.87	---	---	---
	05/10/02	135.67	3184.07	---	---	---
	10/22/02	135.90	3183.84	---	---	---
	05/20/03	136.00	3183.74	---	---	---
	11/24/03	135.70	3184.04	---	---	---
	05/11/04	135.34	3184.40	---	---	---
	11/15/04	135.76	3183.98	---	---	---
	05/17/05	135.69	3184.05	---	---	---
	11/15/05	135.85	3183.89	---	---	---
	05/08/06	135.60	3184.14	---	---	---
	11/13/06	135.59	3184.15	---	---	---
	05/29/07	135.75	3183.99	---	---	---
	11/14/07	135.62	3184.12	---	---	---
	05/14/08	135.76	3183.98	---	---	---
	11/03/08	135.66	3184.08	---	---	---
	05/19/09	135.67	3184.07	---	---	---
	11/02/09	135.68	3184.06	---	---	---
	05/05/10	135.83	3183.91	---	---	---
	11/08/10	135.36	3184.38	---	---	---
	05/05/11	135.40	3184.34	---	---	---
	11/08/11	135.43	3184.31	---	---	---
	05/16/12	135.38	3184.36	---	---	---
	10/10/12	135.55	3184.19	---	---	---
	05/16/13	135.38	3184.36	---	---	---
	10/07/13	135.53	3184.21	---	---	---
	05/01/14	135.41	3184.33	---	---	---
	10/05/14	135.61	3184.13	---	---	---
	05/21/15	135.25	3184.49	---	---	---
	10/19/15	135.70	3184.04	---	---	---
	05/25/16	135.44	3184.30	---	---	---
	10/17/16	135.11	3184.63	---	---	---
	05/10/17	135.20	3184.54	---	---	---
3321.58	10/25/17	135.40	3186.18	---	---	---
	05/22/18	135.13	3186.45	---	---	---
	10/16/18	135.32	3186.26	---	---	---
	06/20/19	136.21	3185.37	171.81	---	---
	04/15/20	135.25	3186.33	---	---	---
	10/12/20	135.41	3186.17	---	---	---
	06/21/21	135.28	3186.30	---	---	---
	12/06/21	135.23	3186.35	---	---	---
	08/22/22	135.27	3186.31	---	---	---
	12/21/22	134.98	3186.60	---	---	---
	07/20/23	135.24	3186.34	---	---	---
	11/13/23	135.10	3186.48	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-4A	05/18/98	135.68	3183.90	143.00	2.00	128-143
3319.58	05/21/99	135.65	3183.93	---	---	---
	05/25/99	135.90	3183.68	---	---	---
	02/08/01	135.34	3184.24	---	---	---
	05/10/02	135.30	3184.28	---	---	---
	10/22/02	135.51	3184.07	---	---	---
	05/20/03	135.55	3184.03	---	---	---
	11/24/03	135.31	3184.27	---	---	---
	05/11/04	135.72	3183.86	---	---	---
	11/15/04	135.38	3184.20	---	---	---
	05/17/05	135.32	3184.26	---	---	---
	11/15/05	135.52	3184.06	---	---	---
	05/08/06	135.26	3184.32	---	---	---
	11/13/06	135.20	3184.38	---	---	---
	05/29/07	135.32	3184.26	---	---	---
	11/14/07	135.20	3184.38	---	---	---
	05/14/08	135.31	3184.27	---	---	---
	11/03/08	135.27	3184.31	---	---	---
	05/19/09	135.25	3184.33	---	---	---
	11/02/09	135.25	3184.33	---	---	---
	05/05/10	135.33	3184.25	---	---	---
	11/08/10	135.18	3184.40	---	---	---
	05/11/11	135.17	3184.41	---	---	---
	11/08/11	135.22	3184.36	---	---	---
	05/16/12	135.18	3184.40	---	---	---
	10/10/12	135.33	3184.25	---	---	---
	05/16/13	135.20	3184.38	---	---	---
	10/07/13	135.01	3184.57	---	---	---
	05/01/14	135.26	3184.32	---	---	---
	10/05/14	135.05	3184.53	---	---	---
	05/21/15	135.11	3184.47	---	---	---
	10/19/15	135.20	3184.38	---	---	---
	05/25/16	135.27	3184.31	---	---	---
	10/17/16	135.00	3184.58	---	---	---
	05/10/17	135.01	3184.57	---	---	---
3321.42	10/25/17	135.22	3186.20	---	---	---
	05/22/18	134.97	3186.45	---	---	---
	10/16/18	135.11	3186.31	---	---	---
	06/20/19	134.98	3186.44	145.55	---	---
	04/15/20	136.09	3185.33	---	---	---
	10/12/20	136.13	3185.29	---	---	---
	06/21/21	135.15	3186.27	---	---	---
	12/06/21	135.08	3186.34	---	---	---
	08/22/22	135.05	3186.37	---	---	---
	12/21/22	134.86	3186.56	---	---	---
	07/20/23	135.06	3186.36	---	---	---
	11/13/23	134.98	3186.44	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

ARCADIS

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-5	05/18/98	137.42	3183.68	171.00	2.00	161-171
3321.10	05/25/99	137.28	3183.82	---	---	---
	02/08/01	137.18	3183.92	---	---	---
	05/10/02	137.10	3184.00	---	---	---
	10/22/02	137.04	3184.06	---	---	---
	05/20/03	137.45	3183.65	---	---	---
	11/24/03	137.01	3184.09	---	---	---
	05/11/04	137.01	3184.09	---	---	---
	11/15/04	137.08	3184.02	---	---	---
	05/17/05	137.00	3184.10	---	---	---
	11/15/05	137.18	3183.92	---	---	---
	05/08/06	136.90	3184.20	---	---	---
	11/13/06	136.81	3184.29	---	---	---
	05/29/07	136.92	3184.18	---	---	---
	11/14/07	136.85	3184.25	---	---	---
	05/14/08	136.97	3184.13	---	---	---
	11/03/08	136.89	3184.21	---	---	---
	05/19/09	136.90	3184.20	---	---	---
	11/02/09	136.90	3184.20	---	---	---
	05/05/10	137.02	3184.08	---	---	---
	11/08/10	136.93	3184.17	---	---	---
	05/11/11	136.92	3184.18	---	---	---
	11/08/11	136.84	3184.26	---	---	---
	05/16/12	136.80	3184.30	---	---	---
	10/10/12	136.98	3184.12	---	---	---
	05/16/13	136.80	3184.30	---	---	---
	10/07/13	136.79	3184.31	---	---	---
	05/01/14	136.83	3184.27	---	---	---
	10/05/14	136.63	3184.47	---	---	---
	05/21/15	130.60	3190.50	---	---	---
	10/19/15	136.70	3184.40	---	---	---
	05/25/16	136.79	3184.31	---	---	---
	10/17/16	136.51	3184.59	---	---	---
	05/10/17	136.53	3184.57	---	---	---
3322.98	10/25/17	136.80	3186.18	---	---	---
	05/22/18	136.51	3186.47	---	---	---
	10/16/18	136.58	3186.40	---	---	---
	06/20/19	136.65	3186.33	173.72	---	---
	04/15/20	136.48	3186.50	---	---	---
	10/12/20	136.78	3186.20	---	---	---
	06/21/21	136.64	3186.34	---	---	---
	12/06/21	136.58	3186.40	---	---	---
	08/22/22	136.52	3186.46	---	---	---
	12/21/22	136.38	3186.60	---	---	---
	07/20/23	136.56	3186.42	---	---	---
	11/13/23	136.45	3186.53	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-5A	05/18/98	137.20	3183.87	141.00	2.00	126-141
3321.07	05/25/99	137.11	3183.96	---	---	---
	02/08/01	136.99	3184.08	---	---	---
	05/10/02	136.90	3184.17	---	---	---
	10/22/02	137.17	3183.90	---	---	---
	05/20/03	137.24	3183.83	---	---	---
	11/24/03	136.91	3184.16	---	---	---
	05/11/04	136.88	3184.19	---	---	---
	11/15/04	136.92	3184.15	---	---	---
	05/17/05	136.83	3184.24	---	---	---
	11/15/05	137.06	3184.01	---	---	---
	05/08/06	136.80	3184.27	---	---	---
	11/13/06	136.74	3184.33	---	---	---
	05/29/07	136.82	3184.25	---	---	---
	11/14/07	136.88	3184.19	---	---	---
	05/14/08	136.83	3184.24	---	---	---
	11/03/08	136.81	3184.26	---	---	---
	05/19/09	136.78	3184.29	---	---	---
	11/02/09	136.80	3184.27	---	---	---
	05/05/10	136.91	3184.16	---	---	---
	11/08/10	136.69	3184.38	---	---	---
	05/11/11	136.87	3184.20	---	---	---
	11/08/11	136.77	3184.30	---	---	---
	05/16/12	136.74	3184.33	---	---	---
	10/10/12	136.85	3184.22	---	---	---
	05/16/13	136.72	3184.35	---	---	---
	10/07/13	137.45	3183.62	---	---	---
	05/01/14	136.81	3184.26	---	---	---
	10/05/14	136.61	3184.46	---	---	---
	05/21/15	136.68	3184.39	---	---	---
	10/19/15	136.55	3184.52	---	---	---
	05/25/16	136.84	3184.23	---	---	---
	10/17/16	136.43	3184.64	---	---	---
	05/10/17	136.66	3184.41	---	---	---
	10/25/17	136.80	3184.27	---	---	---
	05/22/18	136.55	3184.52	---	---	---
	10/16/18	136.64	3184.43	---	---	---
	06/20/19	144.05	3177.02	176.71	---	---
	04/15/20	136.60	3184.47	---	---	---
	10/12/20	136.80	3184.27	---	---	---
	06/21/21	136.71	3184.36	---	---	---
	12/06/21	136.56	3184.51	---	---	---
	08/22/22	136.55	3184.52	---	---	---
	12/21/22	136.49	3184.58	---	---	---
	07/20/23	136.66	3184.41	---	---	---
	11/13/23	136.52	3184.55	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-6	05/18/98	136.73	3184.42	170.00	2.00	120-170
3321.15	05/25/99	136.61	3184.54	---	---	---
	02/08/01	136.50	3184.65	---	---	---
	05/10/02	136.40	3184.75	---	---	---
	10/22/02	136.57	3184.58	---	---	---
	05/20/03	136.85	3184.30	---	---	---
	11/24/03	136.38	3184.77	---	---	---
	05/11/04	136.41	3184.74	---	---	---
	11/15/04	136.08	3185.07	---	---	---
	05/17/05	136.58	3184.57	---	---	---
	11/15/05	136.82	3184.33	---	---	---
	05/08/06	136.58	3184.57	---	---	---
	11/13/06	136.49	3184.66	---	---	---
	05/29/07	136.61	3184.54	---	---	---
	11/15/07	136.59	3184.56	---	---	---
	05/14/08	136.58	3184.57	---	---	---
	11/03/08	136.52	3184.63	---	---	---
	05/19/09	136.52	3184.63	---	---	---
	11/02/09	136.51	3184.64	---	---	---
	05/05/10	136.53	3184.62	---	---	---
	11/08/10	136.40	3184.75	---	---	---
	05/11/11	Well Casing Damaged				
	11/08/11	Well Casing Damaged				
	05/16/12	Well Casing Damaged				
	10/09/12	Well Casing Damaged				
	09/30/13	Well Plugged and Abandonded 9/30/2013				
MW-6R	05/01/14	136.25	3185.25	---	---	---
3321.50	10/05/14	136.40	3185.10	---	---	---
	05/21/15	136.13	3185.37	---	---	---
	10/19/15	136.20	3185.30	---	---	---
	05/25/16	136.27	3185.23	---	---	---
	10/17/16	135.96	3185.54	---	---	---
	05/10/17	136.07	3185.43	---	---	---
3323.04	10/25/17	136.20	3186.84	---	---	---
	05/22/18	136.03	3187.01	---	---	---
	10/17/18	136.09	3186.95	---	---	---
	06/20/19	---	---	---	---	---
	06/21/21	163.11	3159.93	---	---	---
	12/06/21	136.09	3186.95	---	---	---
	08/22/22	136.02	3187.02	---	---	---
	12/21/22	135.91	3187.13	---	---	---
	07/20/23	136.07	3186.97	---	---	---
	11/13/23	135.97	3187.07	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-7	05/18/98	136.19	3182.20	166.00	2.00	151-166
3318.39	05/25/99	135.98	3182.41	---	---	---
	02/08/01	135.87	3182.52	---	---	---
	05/10/02	135.67	3182.72	---	---	---
	10/22/02	135.89	3182.50	---	---	---
	05/20/03	136.12	3182.27	---	---	---
	11/24/03	135.71	3182.68	---	---	---
	05/11/04	135.74	3182.65	---	---	---
	11/15/04	135.78	3182.61	---	---	---
	05/17/05	135.68	3182.71	---	---	---
	11/15/05	135.90	3182.49	---	---	---
	05/08/06	135.64	3182.75	---	---	---
	11/13/06	135.58	3182.81	---	---	---
	05/29/07	135.73	3182.66	---	---	---
	11/15/07	135.64	3182.75	---	---	---
	05/14/08	135.68	3182.71	---	---	---
	11/03/08	135.66	3182.73	---	---	---
	05/19/09	135.63	3182.76	---	---	---
	11/02/09	135.65	3182.74	---	---	---
	05/05/10	135.80	3182.59	---	---	---
	11/08/10	135.51	3182.88	---	---	---
	05/11/11	135.68	3182.71	---	---	---
	11/08/11	135.62	3182.77	---	---	---
	05/16/12	135.55	3182.84	---	---	---
	10/10/12	135.79	3182.60	---	---	---
	05/16/13	135.59	3182.80	---	---	---
	10/07/13	NS	NS	---	---	---
	05/01/14	135.65	3182.74	---	---	---
	10/05/14	135.58	3182.81	---	---	---
	05/21/15	135.52	3182.87	---	---	---
	10/19/15	135.54	3182.85	---	---	---
	05/25/16	135.75	3182.64	---	---	---
	10/17/16	135.35	3183.04	---	---	---
	05/10/17	135.39	3183.00	---	---	---
3320.19	10/24/17	135.38	3184.81	---	---	---
	05/22/18	135.39	3184.80	---	---	---
	10/15/18	135.59	3184.60	---	---	---
	06/20/19	135.48	3184.71	162.60	---	---
	04/15/20	135.59	3184.60	---	---	---
	10/12/20	135.64	3184.55	---	---	---
	06/22/21	135.50	3184.69	---	---	---
	12/06/21	135.44	3184.75	---	---	---
	08/22/22	135.4	3184.79	---	---	---
	12/21/22	135.26	3184.93	---	---	---
	07/20/23	135.50	3184.69	---	---	---
	11/13/23	135.37	3184.82	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-8	05/18/98	134.36	3182.78	170.00	2.00	155-170
3317.14	05/25/99	134.21	3182.93	---	---	---
	02/08/01	134.08	3183.06	---	---	---
	05/10/02	133.95	3183.19	---	---	---
	10/22/02	134.18	3182.96	---	---	---
	05/20/03	134.38	3182.76	---	---	---
	11/24/03	133.99	3183.15	---	---	---
	05/11/04	134.02	3183.12	---	---	---
	11/15/04	134.11	3183.03	---	---	---
	05/17/05	133.97	3183.17	---	---	---
	11/15/05	134.21	3182.93	---	---	---
	05/08/06	133.94	3183.20	---	---	---
	11/13/06	133.90	3183.24	---	---	---
	05/29/07	134.02	3183.12	---	---	---
	11/15/07	133.76	3183.38	---	---	---
	05/15/08	133.98	3183.16	---	---	---
	11/03/08	134.01	3183.13	---	---	---
	05/19/09	133.97	3183.17	---	---	---
	11/02/09	134.00	3183.14	---	---	---
	05/05/10	134.08	3183.06	---	---	---
	11/08/10	134.03	3183.11	---	---	---
	05/11/11	133.98	3183.16	---	---	---
	11/08/11	133.96	3183.18	---	---	---
	05/16/12	133.84	3183.30	---	---	---
	10/10/12	134.15	3182.99	---	---	---
	05/16/13	133.94	3183.20	---	---	---
	10/07/13	133.90	3183.24	---	---	---
	05/01/14	133.91	3183.23	---	---	---
	10/05/14	133.75	3183.39	---	---	---
	05/21/15	133.88	3183.26	---	---	---
	10/19/15	133.88	3183.26	---	---	---
	05/25/16	133.86	3183.28	---	---	---
	10/17/16	133.68	3183.46	---	---	---
	05/10/17	133.84	3183.30	---	---	---
3319.06	10/24/17	133.72	3185.34	---	---	---
	05/22/18	133.77	3185.29	---	---	---
	10/17/18	133.87	3185.19	---	---	---
	06/20/19	133.87	3185.19	146.85	---	---
	04/15/20	133.81	3185.25	---	---	---
	10/12/20	133.96	3185.10	---	---	---
	06/22/21	133.74	3185.32	---	---	---
	12/06/21	133.74	3185.32	---	---	---
	08/22/22	133.68	3185.38	---	---	---
	12/21/22	133.64	3185.42	---	---	---
	07/20/23	133.81	3185.25	---	---	---
	11/13/23	133.72	3185.34	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-9	05/18/98	132.89	3179.90	164.00	2.00	149-164
3312.79	05/25/99	132.68	3180.11	---	---	---
	02/08/01	132.52	3180.27	---	---	---
	05/10/02	137.20	3175.59	---	---	---
	10/22/02	132.56	3180.23	---	---	---
	05/20/03	132.75	3180.04	---	---	---
	11/24/03	132.35	3180.44	---	---	---
	05/11/04	132.39	3180.40	---	---	---
	11/15/04	132.43	3180.36	---	---	---
	05/17/05	132.26	3180.53	---	---	---
	11/15/05	132.60	3180.19	---	---	---
	05/08/06	132.26	3180.53	---	---	---
	11/13/06	132.19	3180.60	---	---	---
	05/29/07	132.32	3180.47	---	---	---
	11/14/07	132.34	3180.45	---	---	---
	05/15/08	132.29	3180.50	---	---	---
	11/03/08	132.33	3180.46	---	---	---
	05/19/09	132.21	3180.58	---	---	---
	11/02/09	132.35	3180.44	---	---	---
	05/05/10	132.41	3180.38	---	---	---
	11/08/10	132.10	3180.69	---	---	---
	05/11/11	132.22	3180.57	---	---	---
	11/08/11	132.19	3180.60	---	---	---
	05/16/12	132.05	3180.74	---	---	---
	10/10/12	132.32	3180.47	---	---	---
	05/16/13	132.08	3180.71	---	---	---
	10/07/13	131.94	3180.85	---	---	---
	05/01/14	Not Measured - Obstruction In Well				
	10/05/14	131.95	3180.84	---	---	---
	05/21/15	132.05	3180.74	---	---	---
	10/19/15	132.01	3180.78	---	---	---
	05/25/16	131.98	3180.81	---	---	---
	10/17/16	131.91	3180.88	---	---	---
	05/10/17	131.95	3180.84	---	---	---
3314.68	10/24/17	131.92	3182.76	---	---	---
	05/22/18	131.90	3182.78	---	---	---
	10/17/18	131.98	3182.70	---	---	---
	06/20/19	131.95	3182.73	161.46	---	---
	04/15/20	139.92	3174.76	---	---	---
	10/12/20	132.09	3182.59	---	---	---
	06/22/21	131.94	3182.74	---	---	---
	12/06/21	131.87	3182.81	---	---	---
	08/22/22	131.86	3182.82	---	---	---
	12/21/22	131.68	3183.00	---	---	---
	07/20/23	131.90	3182.78	---	---	---
	11/13/23	131.76	3182.92	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-9A	05/18/98	132.65	3179.91	142.00	2.00	127-142
3312.56	05/25/99	132.43	3180.13	---	---	---
	02/08/01	132.37	3180.19	---	---	---
	05/10/02	137.20	3175.36	---	---	---
	10/22/02	132.35	3180.21	---	---	---
	05/20/03	132.55	3180.01	---	---	---
	11/24/03	132.10	3180.46	---	---	---
	05/11/04	132.14	3180.42	---	---	---
	11/15/04	132.19	3180.37	---	---	---
	05/17/05	132.06	3180.50	---	---	---
	11/15/05	132.35	3180.21	---	---	---
	05/08/06	132.02	3180.54	---	---	---
	11/13/06	131.09	3181.47	---	---	---
	05/29/07	132.08	3180.48	---	---	---
	11/14/07	132.06	3180.50	---	---	---
	05/15/08	132.03	3180.53	---	---	---
	11/03/08	131.98	3180.58	---	---	---
	05/19/09	132.00	3180.56	---	---	---
	11/02/09	131.90	3180.66	---	---	---
	05/05/10	131.96	3180.60	---	---	---
	11/08/10	131.85	3180.71	---	---	---
	05/11/11	132.06	3180.50	---	---	---
	11/08/11	131.95	3180.61	---	---	---
	05/16/12	131.81	3180.75	---	---	---
	10/10/12	132.09	3180.47	---	---	---
	05/16/13	131.88	3180.68	---	---	---
	10/07/13	131.90	3180.66	---	---	---
	05/01/14	Not Measured - Obstruction In Well				
	10/05/14	Not Measured - Obstruction In Well				
	05/21/15	Not Measured - Obstruction In Well				
	10/19/15	131.68	3180.88	---	---	---
	05/25/16	131.73	3180.83	---	---	---
	10/17/16	131.62	3180.94	---	---	---
	05/10/17	131.68	3180.88	---	---	---
3314.48	10/24/17	131.60	3182.88	---	---	---
	05/22/18	131.81	3182.67	---	---	---
	10/17/18	131.72	3182.76	---	---	---
	06/20/19	131.69	3182.79	141.72	---	---
	04/15/20	131.5	3182.98	---	---	---
	10/12/20	131.86	3182.62	---	---	---
	06/22/21	131.65	3182.83	---	---	---
	12/06/21	131.64	3182.84	---	---	---
	08/22/22	131.53	3182.95	---	---	---
	12/21/22	131.41	3183.07	---	---	---
	07/20/23	131.60	3182.88	---	---	---
	11/13/23	131.50	3182.98	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-10	05/18/98	137.18	3182.12	166.00	2.00	151-166
3319.30	05/25/99	137.04	3182.26	---	---	---
	02/08/01	136.88	3182.42	---	---	---
	05/10/02	136.80	3182.50	---	---	---
	10/22/02	136.91	3182.39	---	---	---
	05/20/03	137.13	3182.17	---	---	---
	11/24/03	136.71	3182.59	---	---	---
	05/11/04	136.77	3182.53	---	---	---
	11/15/04	136.82	3182.48	---	---	---
	05/17/05	136.34	3182.96	---	---	---
	11/15/05	136.95	3182.35	---	---	---
	05/08/06	136.65	3182.65	---	---	---
	11/13/06	136.59	3182.71	---	---	---
	05/29/07	136.68	3182.62	---	---	---
	11/15/07	136.61	3182.69	---	---	---
	05/15/08	136.65	3182.65	---	---	---
	11/03/08	136.60	3182.70	---	---	---
	05/19/09	136.60	3182.70	---	---	---
	11/02/09	136.60	3182.70	---	---	---
	05/05/10	136.44	3182.86	---	---	---
	11/08/10	136.58	3182.72	---	---	---
	05/11/11	136.62	3182.68	---	---	---
	11/08/11	136.57	3182.73	---	---	---
	05/16/12	136.44	3182.86	---	---	---
	10/10/12	136.91	3182.39	---	---	---
	05/16/13	136.51	3182.79	---	---	---
	10/07/13	136.55	3182.75	---	---	---
	05/01/14	136.37	3182.93	---	---	---
	10/05/14	136.42	3182.88	---	---	---
	05/21/15	136.40	3182.90	---	---	---
	10/19/15	136.41	3182.89	---	---	---
	05/25/16	136.40	3182.90	---	---	---
	10/17/16	136.33	3182.97	---	---	---
	05/10/17	136.34	3182.96	---	---	---
3321.12	10/24/17	136.28	3184.84	---	---	---
	05/22/18	130.07	3191.05	---	---	---
	10/15/18	136.34	3184.78	---	---	---
	06/20/19	136.28	3184.84	160.72	---	---
	04/15/20	136.23	3184.89	---	---	---
	10/12/20	136.56	3184.56	---	---	---
	06/22/21	136.37	3184.75	---	---	---
	12/06/21	136.29	3184.83	---	---	---
	08/22/22	136.25	3184.87	---	---	---
	12/21/22	136.11	3185.01	---	---	---
	07/20/23	136.31	3184.81	---	---	---
	11/13/23	136.22	3184.90	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-11	03/23/99	131.12	3178.57	140.00	4.00	125-140
3309.69	05/25/99	130.91	3178.78	---	---	---
	02/08/01	130.11	3179.58	---	---	---
	05/10/02	135.60	3174.09	---	---	---
	10/22/02	130.76	3178.93	---	---	---
	05/20/03	131.03	3178.66	---	---	---
	11/24/03	130.57	3179.12	---	---	---
	05/11/04	130.61	3179.08	---	---	---
	11/15/04	130.65	3179.04	---	---	---
	05/17/05	131.56	3178.13	---	---	---
	11/15/05	130.70	3178.99	---	---	---
	05/08/06	130.41	3179.28	---	---	---
	11/13/06	130.42	3179.27	---	---	---
	05/29/07	130.52	3179.17	---	---	---
	11/14/07	130.42	3179.27	---	---	---
	05/15/08	130.46	3179.23	---	---	---
	11/03/08	130.41	3179.28	---	---	---
	05/19/09	130.40	3179.29	---	---	---
	11/02/09	130.40	3179.29	---	---	---
	05/05/10	130.43	3179.26	---	---	---
	11/08/10	130.28	3179.41	---	---	---
	05/11/11	130.40	3179.29	---	---	---
	11/08/11	130.37	3179.32	---	---	---
	05/16/12	130.23	3179.46	---	---	---
	10/10/12	130.49	3179.20	---	---	---
	05/16/13	130.27	3179.42	---	---	---
	10/07/13	130.12	3179.57	---	---	---
	05/01/14	130.21	3179.48	---	---	---
	10/05/14	130.16	3179.53	---	---	---
	05/21/15	130.17	3179.52	---	---	---
	10/19/15	130.20	3179.49	---	---	---
	05/25/16	130.17	3179.52	---	---	---
	10/17/16	130.02	3179.67	---	---	---
	05/10/17	130.09	3179.60	---	---	---
3311.56	10/24/17	130.14	3181.42	---	---	---
	05/22/18	130.07	3181.49	---	---	---
	10/17/18	130.09	3181.47	---	---	---
	06/20/19	130.13	3181.43	165.71	---	---
	04/15/20	130.06	3181.50	---	---	---
	10/12/20	130.19	3181.37	---	---	---
	06/22/21	130.03	3181.53	---	---	---
	12/06/21	129.99	3181.57	---	---	---
	08/22/22	129.95	3181.61	---	---	---
	12/21/22	129.82	3181.74	---	---	---
	07/21/23	130.05	3181.51	---	---	---
	11/13/23	129.89	3181.67	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-12*	05/10/02	139.57	3188.86	171.65	4.00	157-172
3328.43	10/22/02	139.73	3188.70	---	---	---
	05/20/03	139.72	3188.71	---	---	---
	11/24/03	139.69	3188.74	---	---	---
	05/11/04	139.64	3188.79	---	---	---
	11/15/04	139.68	3188.75	---	---	---
	05/17/05	139.58	3188.85	---	---	---
	11/15/05	139.83	3188.60	---	---	---
	05/08/06	139.55	3188.88	---	---	---
	11/13/06	139.53	3188.90	---	---	---
	05/29/07	139.65	3188.78	---	---	---
	11/16/07	139.05	3189.38	---	---	---
	05/14/08	139.69	3188.74	---	---	---
	11/03/08	139.61	3188.82	---	---	---
	05/19/09	139.59	3188.84	---	---	---
	11/02/09	139.62	3188.81	---	---	---
	05/05/10	139.66	3188.77	---	---	---
	11/08/10	139.55	3188.88	---	---	---
	05/11/11	139.04	3189.39	---	---	---
	11/08/11	139.68	3188.75	---	---	---
	05/16/12	139.65	3188.78	---	---	---
	10/10/12	139.95	3188.48	---	---	---
	05/16/13	139.67	3188.76	---	---	---
	10/07/13	139.50	3188.93	---	---	---
	05/01/14	139.58	3188.85	---	---	---
	10/05/14	139.56	3188.87	---	---	---
	05/21/15	139.65	3188.78	---	---	---
	10/19/15	139.65	3188.78	---	---	---
	05/25/16	139.71	3188.72	---	---	---
	10/17/16	139.45	3188.98	---	---	---
	05/10/17	139.61	3188.82	---	---	---
3330.33	10/24/17	139.72	3190.61	---	---	---
	05/22/18	139.59	3190.74	---	---	---
	10/17/18	139.68	3190.65	---	---	---
	06/20/19	139.72	3190.61	171.02	---	---
	04/13/20	139.78	3190.55	---	---	---
	10/12/20	139.88	3190.45	---	---	---
	06/22/21	139.61	3190.72	---	---	---
	12/06/21	139.64	3190.69	---	---	---
	08/22/22	139.63	3190.70	---	---	---
	12/21/22	139.55	3190.78	---	---	---
	07/21/23	139.81	3190.52	---	---	---
	11/13/23	139.62	3190.71	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
MW-13*	05/10/02	144.45	3194.04	171.65	4.00	157-172
3338.49	10/22/02	144.49	3194.00	---	---	---
	05/20/03	144.90	3193.59	---	---	---
	11/24/03	144.37	3194.12	---	---	---
	05/11/04	144.47	3194.02	---	---	---
	11/15/04	144.56	3193.93	---	---	---
	05/17/05	144.36	3194.13	---	---	---
	11/15/05	144.60	3193.89	---	---	---
	05/08/06	144.29	3194.20	---	---	---
	11/13/06	144.38	3194.11	---	---	---
	05/29/07	144.54	3193.95	---	---	---
	11/16/07	144.54	3193.95	---	---	---
	05/14/08	144.45	3194.04	---	---	---
	11/03/08	144.36	3194.13	---	---	---
	05/19/09	144.51	3193.98	---	---	---
	11/02/09	144.35	3194.14	---	---	---
	05/05/10	144.39	3194.10	---	---	---
	11/08/10	144.40	3194.09	---	---	---
	05/11/11	144.60	3193.89	---	---	---
	11/08/11	144.74	3193.75	---	---	---
	05/16/12	144.70	3193.79	---	---	---
	10/10/12	144.82	3193.67	---	---	---
	05/16/13	144.70	3193.79	---	---	---
	10/07/13	144.60	3193.89	---	---	---
	05/01/14	144.53	3193.96	---	---	---
	10/05/14	144.70	3193.79	---	---	---
	05/21/15	144.78	3193.71	---	---	---
	10/19/15	144.75	3193.74	---	---	---
	05/25/16	144.87	3193.62	---	---	---
	10/17/16	144.54	3193.95	---	---	---
	05/10/17	144.66	3193.83	---	---	---
	07/11/17	Well Plugged and Abandonded on 7/11/2017				
MW-14	10/07/13	134.60	3182.24	171.50	4.00	131-171
3316.84	05/01/14	134.51	3182.33	---	---	---
	10/05/14	134.44	3182.40	---	---	---
	05/21/15	134.31	3182.53	---	---	---
	10/19/15	134.49	3182.35	---	---	---
	05/25/16	134.42	3182.42	---	---	---
	10/17/16	134.30	3182.54	---	---	---
	05/10/17	134.35	3182.49	---	---	---
3318.36	10/24/17	134.30	3184.06			
	05/22/18	134.32	3184.04	---	---	---
	10/15/18	134.41	3183.95	---	---	---
	06/20/19	134.78	3183.58	178.74	---	---
	06/23/21	134.36	3184.00	---	---	---
	12/06/21	134.42	3183.94	---	---	---
	08/22/22	134.19	3184.17	---	---	---
	12/21/22	134.14	3184.22	---	---	---
	07/20/23	134.33	3184.03	---	---	---
	11/13/23	134.40	3183.96	---	---	---
RW-1	05/21/99	134.32	3184.18	175.00	5.00	130-174

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
3318.50	05/25/99	134.24	3184.26	---	---	---
	02/08/01	134.15	3184.35	---	---	---
	05/10/02	134.00	3184.50	---	---	---
	10/22/02	134.17	3184.33	---	---	---
	05/20/03	134.40	3184.10	---	---	---
	11/24/03	134.02	3184.48	---	---	---
	05/11/04	134.01	3184.49	---	---	---
	11/15/04	134.06	3184.44	---	---	---
	05/17/05	133.97	3184.53	---	---	---
	11/15/05	134.20	3184.30	---	---	---
	05/08/06	133.93	3184.57	---	---	---
	11/13/06	133.92	3184.58	---	---	---
	05/29/07	134.00	3184.50	---	---	---
	11/15/07	133.88	3184.62	---	---	---
	05/14/08	133.98	3184.52	---	---	---
	11/03/08	133.99	3184.51	---	---	---
	05/19/09	133.92	3184.58	---	---	---
	11/02/09	134.00	3184.50	---	---	---
	05/05/10	134.03	3184.47	---	---	---
	11/08/10	133.81	3184.69	---	---	---
	05/11/11	133.83	3184.67	---	---	---
	11/08/11	133.88	3184.62	---	---	---
	05/16/12	133.84	3184.66	---	---	---
	10/10/12	135.01	3183.49	---	---	---
	05/16/13	133.85	3184.65	---	---	---
	10/07/13	133.68	3184.82	---	---	---
	05/01/14	133.91	3184.59	---	---	---
	10/05/14	133.64	3184.86	---	---	---
	05/21/15	133.73	3184.77	---	---	---
	10/19/15	133.73	3184.77	---	---	---
	05/25/16	133.73	3184.77	---	---	---
	10/17/16	133.80	3184.70	---	---	---
	05/10/17	133.67	3184.83	---	---	---
3320.31	10/25/17	133.80	3186.51	---	---	---
	05/22/18	133.61	3186.70	---	---	---
	10/16/18	133.76	3186.55	---	---	---
	06/20/19	133.64	3186.67	164.03	---	---
	04/15/20	133.68	3186.63	---	---	---
	10/12/20	133.95	3186.36	---	---	---
	06/21/21	133.84	3186.47	---	---	---
	12/06/21	133.74	3186.57	---	---	---
	08/22/22	133.69	3186.62	---	---	---
	12/21/22	133.52	3186.79	---	---	---
	07/20/23	133.71	3186.60	---	---	---
	11/13/23	133.64	3186.67	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
RW-2	02/08/01	135.58	3183.04	160.00	5.00	134-173
3318.62	05/10/02	135.55	3183.07	---	---	---
	10/22/02	135.55	3183.07	---	---	---
	05/20/03	135.58	3183.04	---	---	---
	11/24/03	135.54	3183.08	---	---	---
	05/11/04	135.48	3183.14	---	---	---
	11/15/04	135.43	3183.19	---	---	---
	05/17/05	135.46	3183.16	---	---	---
	11/15/05	135.65	3182.97	---	---	---
	05/08/06	135.42	3183.20	---	---	---
	11/13/06	135.47	3183.15	---	---	---
	05/29/07	135.54	3183.08	---	---	---
	11/15/07	135.48	3183.14	---	---	---
	05/14/08	135.48	3183.14	---	---	---
	11/03/08	135.44	3183.18	---	---	---
	05/19/09	135.44	3183.18	---	---	---
	11/02/09	135.45	3183.17	---	---	---
	05/05/10	135.47	3183.15	---	---	---
	11/08/10	135.30	3183.32	---	---	---
	05/11/11	135.55	3183.07	---	---	---
	11/08/11	135.46	3183.16	---	---	---
	05/16/12	135.40	3183.22	---	---	---
	10/10/12	135.49	3183.13	---	---	---
	05/16/13	135.33	3183.29	---	---	---
	05/01/14	135.40	3183.22	---	---	---
	10/05/14	135.29	3183.33	---	---	---
	05/21/15	135.28	3183.34	---	---	---
	10/19/15	135.32	3183.30	---	---	---
	05/25/16	135.21	3183.41	---	---	---
	10/17/16	135.15	3183.47	---	---	---
	05/10/17	135.14	3183.48	---	---	---
3320.42	10/25/17	135.30	3185.12	---	---	---
	05/22/18	135.12	3185.30	---	---	---
	10/15/18	135.21	3185.21	---	---	---
	06/20/19	135.23	3185.19	156.50	---	---
	04/15/20	135.28	3185.14	---	---	---
	10/12/20	135.38	3185.04	---	---	---
	06/21/21	135.26	3185.16	---	---	---
	12/06/21	135.16	3185.26	---	---	---
	08/22/22	135.15	3185.27	---	---	---
	12/21/22	134.97	3185.45	---	---	---
	07/20/23	135.20	3185.22	---	---	---
	11/13/23	135.08	3185.34	---	---	---

Appendix D
Cumulative Summary of Groundwater Potentiometric Elevation Data
Cooper-Jal Unit South Injection Station
Lea County, New Mexico

Well ID TOC Elevation (ft MSL)	Collection Date	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft MSL)	Constructed Depth (ft below TOC)	Casing Diameter (in)	Well Screen Interval (ft bgs)
RW-2R	10/07/13	135.43	3183.19	173.00	6.00	133-173
3320.68	10/07/13	136.94	3183.74	---	---	---
	05/01/14	137.05	3183.63	---	---	---
	10/05/14	136.85	3183.83	---	---	---
	05/21/15	136.85	3183.83	---	---	---
	10/19/15	136.92	3183.76	---	---	---
	05/25/16	136.89	3183.79	---	---	---
	10/17/16	136.75	3183.93	---	---	---
	05/10/17	136.77	3183.91	---	---	---
3320.68	10/25/17	137.00	3183.68	---	---	---
	05/22/18	136.76	3183.92	---	---	---
	10/15/18	136.87	3183.81	---	---	---
	06/20/19	136.79	3183.89	176.82	---	---
	04/15/20	136.82	3183.86	---	---	---
	10/12/20	137.05	3183.63	---	---	---
	06/21/21	136.95	3183.73	---	---	---
	12/06/21	136.85	3183.83	---	---	---
	08/22/22	136.78	3183.90	---	---	---
	12/21/22	136.67	3184.01	---	---	---
	07/20/23	136.83	3183.85	---	---	---
	11/13/23	137.67	3183.01	---	---	---

Notes:
1. TOC - Top of Casing
2. ft bgs - feet below ground surface
3. in - inches
4. A - Indicates groundwater monitor well installed in shallow Uppermost Groundwater Bearing Unit.
5. MSL - Mean Sea Level
6. * - Indicates groundwater monitor well installed off-Site and upgradient of plume.

Appendix E

Analytical Reports

ANALYTICAL REPORT

August 01, 2023

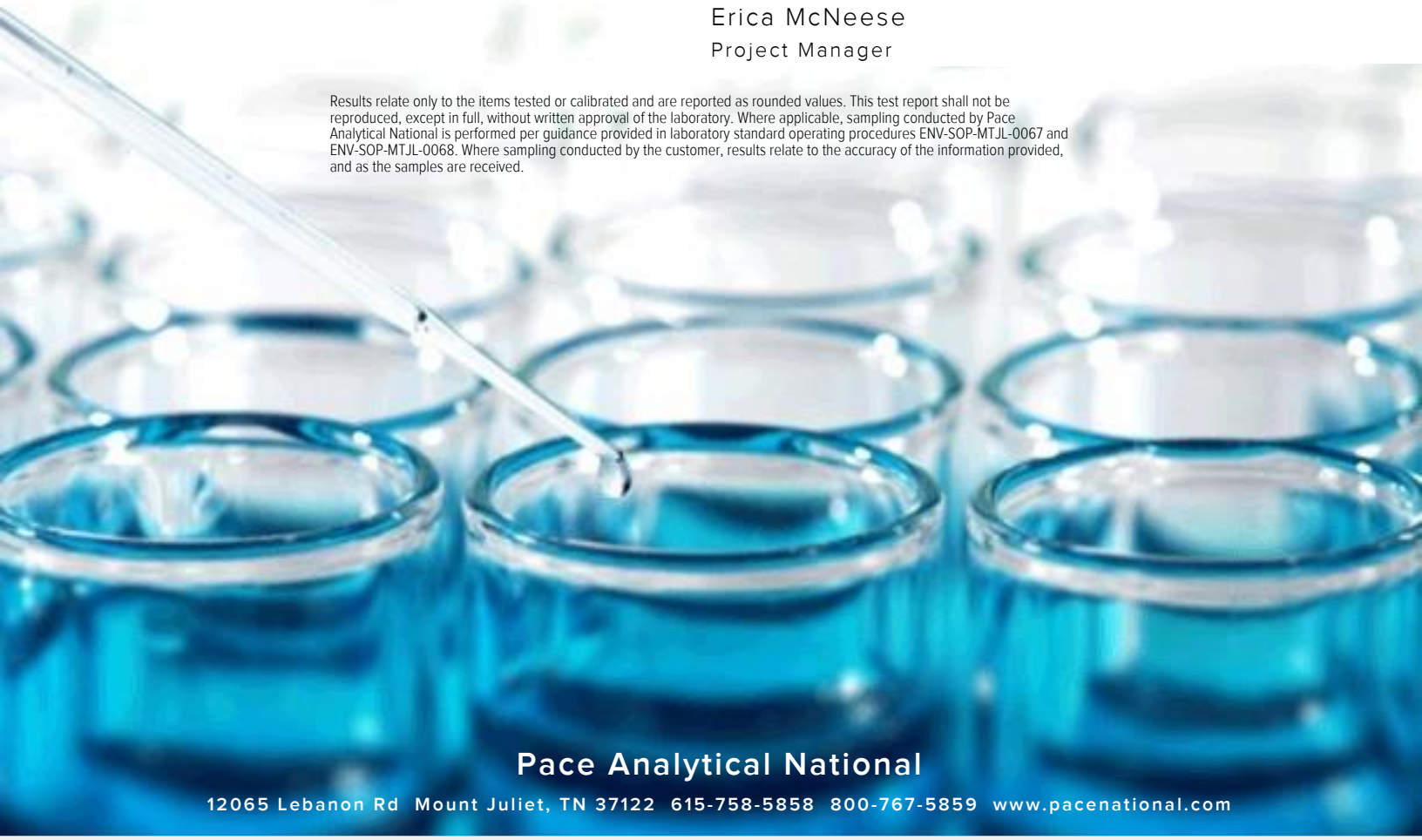
Arcadis - Chevron - NM

Sample Delivery Group:	L1638368
Samples Received:	07/22/2023
Project Number:	30183400 task 0002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-1-W-20230720 L1638368-01 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 11:15 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	10	07/24/23 12:19	07/24/23 12:19	GEB	Mt. Juliet, TN

MW-2-W-20230720 L1638368-02 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 11:25 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	1	07/24/23 12:33	07/24/23 12:33	GEB	Mt. Juliet, TN

MW-2A-W-20230720 L1638368-03 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 11:35 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	1	07/24/23 13:34	07/24/23 13:34	GEB	Mt. Juliet, TN

MW-6R-W-20230720 L1638368-04 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 11:50 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	1	07/24/23 13:49	07/24/23 13:49	GEB	Mt. Juliet, TN

MW-5-W-20230720 L1638368-05 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 12:05 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	20	07/24/23 14:33	07/24/23 14:33	GEB	Mt. Juliet, TN

MW-5A-W-20230720 L1638368-06 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 12:15 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102116	1	07/26/23 15:27	07/26/23 16:19	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	1	07/24/23 14:48	07/24/23 14:48	GEB	Mt. Juliet, TN

MW-4-W-20230720 L1638368-07 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 12:35 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 15:03	07/24/23 15:03	GEB	Mt. Juliet, TN

MW-4A-W-20230720 L1638368-08 WW

Collected by: Daniel McGee | Collected date/time: 07/20/23 12:45 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	1	07/24/23 15:18	07/24/23 15:18	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	5	07/24/23 15:33	07/24/23 15:33	GEB	Mt. Juliet, TN

RW-1-W-20230720 L1638368-09 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 12:55 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 15:48	07/24/23 15:48	GEB	Mt. Juliet, TN

DUP-1-W-20230720 L1638368-10 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 00:00 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 16:02	07/24/23 16:02	GEB	Mt. Juliet, TN

RW-2R-W-20230720 L1638368-11 WW

Collected by: Daniel McGee | Collected date/time: 07/20/23 13:40 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	10	07/24/23 16:17	07/24/23 16:17	GEB	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 16:32	07/24/23 16:32	GEB	Mt. Juliet, TN

RW-2-W-20230720 L1638368-12 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 13:50 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 16:47	07/24/23 16:47	GEB	Mt. Juliet, TN

MW-10-W-20230720 L1638368-13 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 14:05 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	5	07/24/23 17:32	07/24/23 17:32	GEB	Mt. Juliet, TN

DUP-2-W-20230720 L1638368-14 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 00:00 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100017	100	07/24/23 17:46	07/24/23 17:46	GEB	Mt. Juliet, TN

MW-14-W-20230720 L1638368-15 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 14:15 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	1	07/24/23 14:00	07/24/23 14:00	GEB	Mt. Juliet, TN

MW-7-W-20230720 L1638368-16 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 14:40 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101214	1	07/25/23 15:11	07/25/23 16:12	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	100	07/24/23 15:20	07/24/23 15:20	GEB	Mt. Juliet, TN

MW-8-W-20230720 L1638368-17 GW

Collected by: Daniel McGee | Collected date/time: 07/20/23 15:00 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2101934	1	07/26/23 13:46	07/26/23 16:03	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	1	07/24/23 15:33	07/24/23 15:33	GEB	Mt. Juliet, TN

MW-9-W-20230721 L1638368-18 GW

Collected by: Daniel McGee | Collected date/time: 07/21/23 10:00 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102700	1	07/27/23 10:50	07/27/23 12:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	20	07/24/23 15:46	07/24/23 15:46	GEB	Mt. Juliet, TN

MW-9A-W-20230721 L1638368-19 GW

Collected by: Daniel McGee | Collected date/time: 07/21/23 10:15 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102700	1	07/27/23 10:50	07/27/23 12:58	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	5	07/24/23 16:00	07/24/23 16:00	GEB	Mt. Juliet, TN

MW-11-W-20230721 L1638368-20 GW

Collected by: Daniel McGee | Collected date/time: 07/21/23 10:30 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102700	1	07/27/23 10:50	07/27/23 12:58	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	1	07/24/23 16:13	07/24/23 16:13	GEB	Mt. Juliet, TN

MW-3-W-20230721 L1638368-21 GW

Collected by: Daniel McGee | Collected date/time: 07/21/23 10:45 | Received date/time: 07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102700	1	07/27/23 10:50	07/27/23 12:58	ARD	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	1	07/24/23 16:27	07/24/23 16:27	GEB	Mt. Juliet, TN

SAMPLE SUMMARY

MW-12-W-20230721 L1638368-22 GW

Collected by	Collected date/time	Received date/time
Daniel McGee	07/21/23 11:00	07/22/23 15:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2102700	1	07/27/23 10:50	07/27/23 12:58	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2100018	5	07/24/23 17:08	07/24/23 17:08	GEB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Erica McNeese
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1720		50.0	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	736		3.79	10.0	10	07/24/2023 12:19	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	437		10.0	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	137		0.379	1.00	1	07/24/2023 12:33	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	551		10.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	102		0.379	1.00	1	07/24/2023 13:34	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	479		10.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	71.5		0.379	1.00	1	07/24/2023 13:49	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2440		50.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1050		7.58	20.0	20	07/24/2023 14:33	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	552		10.0	1	07/26/2023 16:19	WG2102116

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	146		0.379	1.00	1	07/24/2023 14:48	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	19800		400	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	13300		37.9	100	100	07/24/2023 15:03	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1260		20.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	424		1.90	5.00	5	07/24/2023 15:33	WG2100017
Sulfate	101		0.594	5.00	1	07/24/2023 15:18	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2790		50.0	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	3440		37.9	100	100	07/24/2023 15:48	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3190		100	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	4340		37.9	100	100	07/24/2023 16:02	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	17100		200	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	8290		37.9	100	100	07/24/2023 16:32	WG2100017
Sulfate	904		5.94	50.0	10	07/24/2023 16:17	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4950		100	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2910		37.9	100	100	07/24/2023 16:47	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1210		20.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	364		1.90	5.00	5	07/24/2023 17:32	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4310		100	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2840		37.9	100	100	07/24/2023 17:46	WG2100017

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	471		10.0	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	57.5		0.379	1.00	1	07/24/2023 14:00	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	14500		200	1	07/25/2023 16:12	WG2101214

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5150		37.9	100	100	07/24/2023 15:20	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	432		10.0	1	07/26/2023 16:03	WG2101934

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	36.9		0.379	1.00	1	07/24/2023 15:33	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2620		50.0	1	07/27/2023 12:58	WG2102700

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1050		7.58	20.0	20	07/24/2023 15:46	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	753	B	13.3	1	07/27/2023 12:58	WG2102700

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	260		1.90	5.00	5	07/24/2023 16:00	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	410	B	10.0	1	07/27/2023 12:58	WG2102700

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	35.0		0.379	1.00	1	07/24/2023 16:13	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	430	B	10.0	1	07/27/2023 12:58	WG2102700

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	41.7		0.379	1.00	1	07/24/2023 16:27	WG2100018

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1300		20.0	1	07/27/2023 12:58	WG2102700

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	469		1.90	5.00	5	07/24/2023 17:08	WG2100018

Method Blank (MB)

(MB) R3953933-1 07/25/23 16:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1637951-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1637951-01 07/25/23 16:12 • (DUP) R3953933-3 07/25/23 16:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2000	2090	1	4.65		5

L1638066-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1638066-02 07/25/23 16:12 • (DUP) R3953933-4 07/25/23 16:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	24.0	20.0	1	18.2	P1	5

Laboratory Control Sample (LCS)

(LCS) R3953933-2 07/25/23 16:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8780	99.8	77.3-123	

Method Blank (MB)

(MB) R3953691-1 07/26/23 16:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1633795-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1633795-02 07/26/23 16:03 • (DUP) R3953691-3 07/26/23 16:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1600	1600	1	0.156		5

L1638368-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-03 07/26/23 16:03 • (DUP) R3953691-4 07/26/23 16:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	551	566	1	2.69		5

Laboratory Control Sample (LCS)

(LCS) R3953691-2 07/26/23 16:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8710	99.0	77.3-123	

Method Blank (MB)

(MB) R3954121-1 07/26/23 16:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1638039-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1638039-01 07/26/23 16:19 • (DUP) R3954121-3 07/26/23 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	842	864	1	2.58		5

L1638039-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1638039-02 07/26/23 16:19 • (DUP) R3954121-4 07/26/23 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	700	743	1	5.92	J3	5

Laboratory Control Sample (LCS)

(LCS) R3954121-2 07/26/23 16:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8340	94.8	77.3-123	

Method Blank (MB)

(MB) R3955246-1 07/27/23 12:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	98.0		10.0	10.0

L1638366-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1638366-02 07/27/23 12:58 • (DUP) R3955246-4 07/27/23 12:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	567	577	1	1.86		5

L1638018-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1638018-02 07/27/23 12:58 • (DUP) R3955246-3 07/27/23 12:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	262	259	1	1.15		5

Laboratory Control Sample (LCS)

(LCS) R3955246-2 07/27/23 12:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8610	97.8	77.3-123	

Method Blank (MB)

(MB) R3952326-1 07/24/23 11:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Sulfate	U		0.594	5.00

L1638368-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-02 07/24/23 12:33 • (DUP) R3952326-3 07/24/23 12:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	137	137	1	0.225		20
Sulfate	74.6	74.6	1	0.0810		20

L1638410-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1638410-06 07/24/23 18:46 • (DUP) R3952326-6 07/24/23 19:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	72.3	72.7	1	0.496		20
Sulfate	67.5	67.8	1	0.427		20

Laboratory Control Sample (LCS)

(LCS) R3952326-2 07/24/23 11:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.2	100	90.0-110	
Sulfate	40.0	42.4	106	90.0-110	

L1638368-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638368-02 07/24/23 12:33 • (MS) R3952326-4 07/24/23 13:04 • (MSD) R3952326-5 07/24/23 13:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	137	179	179	85.2	84.3	1	80.0-120			0.249	20
Sulfate	50.0	74.6	128	128	107	107	1	80.0-120			0.292	20

L1638410-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1638410-06 07/24/23 18:46 • (MS) R3952326-7 07/24/23 19:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	72.3	118	91.7	1	80.0-120	
Sulfate	50.0	67.5	117	99.3	1	80.0-120	

Method Blank (MB)

(MB) R3954445-1 07/24/23 11:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00

L1638368-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-15 07/24/23 14:00 • (DUP) R3954445-3 07/24/23 14:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	57.5	57.1	1	0.672		20

L1638368-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1638368-21 07/24/23 16:27 • (DUP) R3954445-6 07/24/23 16:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	41.7	41.6	1	0.128		20

Laboratory Control Sample (LCS)

(LCS) R3954445-2 07/24/23 11:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.8	102	90.0-110	

L1638368-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1638368-15 07/24/23 14:00 • (MS) R3954445-4 07/24/23 14:26 • (MSD) R3954445-5 07/24/23 15:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	57.5	107	108	98.9	100	1	80.0-120			0.763	20

L1638368-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1638368-21 07/24/23 16:27 • (MS) R3954445-7 07/24/23 16:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	41.7	93.1	103	1	80.0-120	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J3	The associated batch QC was outside the established quality control range for precision.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Chain of Custody Page 1 of 3

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1638368 D213

Acctnum: CHEVARCNM
Template: T200378
Prelogin: P1011575
PM: 526 - Chris McCord
PB: 7/12/23 CAM
Shipped Via: FedEX Ground

Company Name/Address:
Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to: **Russell Grant**

Email To: lydia.velezgonzalez@arcadis.com;russell.grant@

Project Description: **UEM4822 - Cooper Jal**

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: **916-786-5246**

Client Project # **30183400 task 0002**

Lab Project # **CHEVARCNM-COOPERJAL**

Collected by (print): Daniel McVee

Site/Facility ID # **COOPER JAL**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE (300.0) 125mlHDPE-NoPres	SULFATE (300.0) 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-1-W-20230720	G	GW		7-20-23	1115	2	X		X		-01
MW-2-W-20230720		GW			1125	2	X		X		-02
MW-2A-W-20230720		GW			1135	2	X		X		-03
MW-6R-W-20230720		GW			1150	2	X		X		-04
MW-5-W-20230720		GW			1205	2	X		X		-05
MW-5A-W-20230720		GW			1215	2	X		X		-06
MW-4-W-20230720		GW			1235	2	X		X		-07
MW-4A-W-20230720		GW			1245	3	X	X	X		-08
RW-1-W-20230720		GW			1255	2	X		X		-09
DUP-1-W-20230720	G	GW		7-20-23	—	2	X		X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Samples returned via: __UPS __FedEx __Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7-21-23	1400	
Relinquished by : (Signature)	Date: 7/21/23	Time: 1700	Received by: (Signature) SWA
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Alexa Mitchell

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.6 °C Bottles Received: 44
3.5 to 3.5

Date: 7/22/23 Time: 1545

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Arcadis - Chevron - NM

10205 Westheimer Rd.
#800
Houston, TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Chain of Custody

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MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: Russell Grant

Email To: lydia.velezgonzalez@arcadis.com;russell.grant@

Project Description: UEM4822 - Cooper Jal

City/State Collected: Jal, NM

Please Circle: PT MT (CT) ET

Phone: 916-786-5246

Client Project #: 30183400 task 0002

Lab Project #: CHEVARCNM-COOPERJAL

Collected by (print): Daniel McGee

Site/Facility ID #: COOPER JAL

P.O. #:

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #:

Date Results Needed: standard

SDG #: 1638368

Table #:

Acctnum: CHEVARCNM
Template: T200378
Prelogin: P1011575
PM: 526 - Chris McCord
PB: 7/12/23 CAM
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE (300.0) 125mlHDPE-NoPres	SULFATE (300.0) 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
RW-2R-W-20230720	G	GW		7-20-23	1340	3	X	X	X		-11
RW-2-W-20230720		GW			1350	2	X		X		-12
MW-10-W-20230720		GW			1405	2	X		X		-13
DUP-2-W-20230720		GW			—	2	X		X		-14
MW-14-W-20230720		GW			1415	2	X		X		-15
MW-7-W-20230720		GW			1440	2	X		X		-16
MW-8-W-20230720		GW		7-20-23	1500	2	X		X		-17
MW-9-W-20230721		GW		7-21-23	1000	2	X		X		-18
MW-9A-W-20230721		GW			1015	2	X		X		-19
MW-11-W-20230721	G	GW		7-21-23	1030	2	X		X		-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	
[signature]	7-21-23	1400	[signature]	Trip Blank Received: Yes / No HCL / MeoH TBR
[signature]	7/21/23	1700	[signature]	Temp: 3.5+0=3.5 °C Bottles Received: 44
			Received for lab by: (Signature) Alexa Mitchell	Date: 7/22/23 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Company Name / Address:
Arcadis - Chevron - NM

10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to: **Russell Grant**

Email To: lydia.velezgonzalez@arcadis.com;russell.grant@

Project Description: **UEM4822 - Cooper Jal**

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: **916-786-5246**

Client Project # **30183400 task 0002**

Lab Project # **CHEVARCNM-COOPERJAL**

Collected by (print): Daniel Mclee

Site/Facility ID # **COOPER JAL**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE (300.0) 125mlHDPE-NoPres	SULFATE (300.0) 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-3-W-20230721	G	GW		7-21-23	1045	2	X		X		-21
MW-12-W-20230721	G	GW		7-21-23	1100	2	X		X		-22
		GW									

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

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SDG # 638368

Table #

Acctnum: **CHEVARCNM**
Template: **T200378**
Prelogin: **P1011575**
PM: **526 - Chris McCord**
PB: 7/12/23 CAM

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	7-21-23	1400		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.6 °C Bottles Received: 44
	7/21/23	1700		3.5+0=3.5
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Alexa Mitchell	7/22/23 1545

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

November 29, 2023

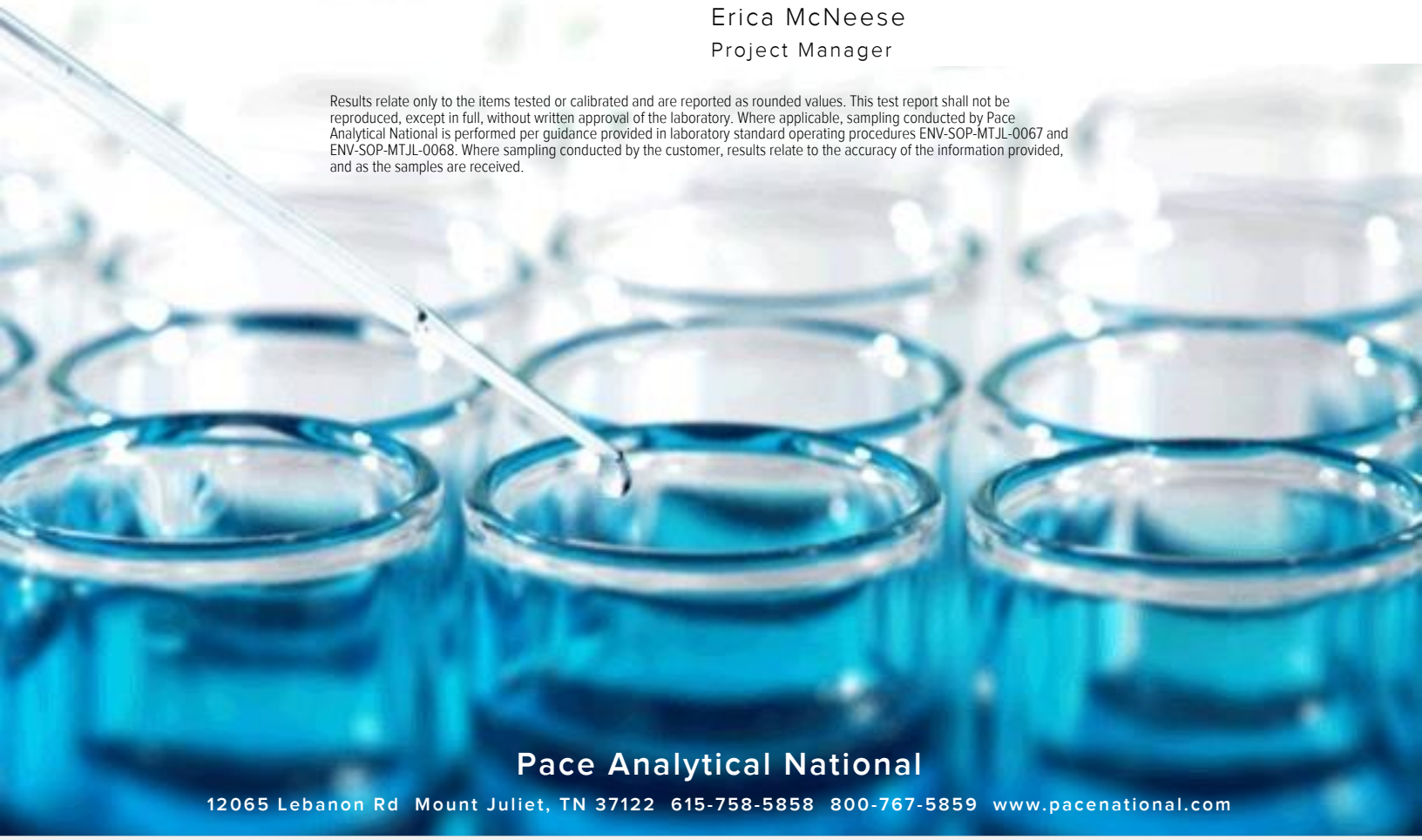
Arcadis - Chevron - NM

Sample Delivery Group:	L1678374
Samples Received:	11/15/2023
Project Number:	30183400 task 0002
Description:	UEM4822 - Cooper Jal
Site:	COOPER JAL
Report To:	Russell Grant 10205 Westheimer Rd. #800 Houston, TX 77042

Entire Report Reviewed By: Erica McNeese

Erica McNeese
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-12-W-20231113 L1678374-01 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 13:20 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2172510	5	11/20/23 07:02	11/20/23 07:02	HMM	Mt. Juliet, TN

MW-1-W-20231113 L1678374-02 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 13:40 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	10	11/24/23 17:21	11/24/23 17:21	HMM	Mt. Juliet, TN

MW-2-W-20231113 L1678374-03 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 14:15 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	1	11/24/23 17:31	11/24/23 17:31	HMM	Mt. Juliet, TN

MW-5-W-20231113 L1678374-04 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 14:45 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	10	11/24/23 17:40	11/24/23 17:40	HMM	Mt. Juliet, TN

MW-4-W-20231113 L1678374-05 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 15:10 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 17:50	11/24/23 17:50	HMM	Mt. Juliet, TN

RW-1-W-20231113 L1678374-06 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 15:35 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 18:00	11/24/23 18:00	HMM	Mt. Juliet, TN

DUP-1-W-20231113 L1678374-07 GW

Collected by: Daniel McGee | Collected date/time: 11/13/23 00:00 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174182	1	11/19/23 16:03	11/19/23 16:57	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 18:09	11/24/23 18:09	HMM	Mt. Juliet, TN

RW-2-W-20231114 L1678374-08 GW

Collected by: Daniel McGee | Collected date/time: 11/14/23 09:55 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174557	1	11/20/23 12:59	11/20/23 19:19	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	10	11/24/23 18:19	11/24/23 18:19	HMM	Mt. Juliet, TN

RW-2R-W-20231114 L1678374-09 GW

Collected by: Daniel McGee | Collected date/time: 11/14/23 10:10 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174557	1	11/20/23 12:59	11/20/23 19:19	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 18:28	11/24/23 18:28	HMM	Mt. Juliet, TN

MW-10-W-20231114 L1678374-10 GW

Collected by: Daniel McGee | Collected date/time: 11/14/23 10:30 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174557	1	11/20/23 12:59	11/20/23 19:19	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	5	11/24/23 18:57	11/24/23 18:57	HMM	Mt. Juliet, TN

MW-7-W-20231114 L1678374-11 GW

Collected by: Daniel McGee | Collected date/time: 11/14/23 10:55 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174557	1	11/20/23 12:59	11/20/23 19:19	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 19:06	11/24/23 19:06	HMM	Mt. Juliet, TN

MW-9-W-20231114 L1678374-12 GW

Collected by: Daniel McGee | Collected date/time: 11/14/23 11:15 | Received date/time: 11/15/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2174563	1	11/20/23 13:07	11/20/23 17:54	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2174496	100	11/24/23 19:16	11/24/23 19:16	HMM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Erica McNeese
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1470		20.0	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	447		1.90	5.00	5	11/20/2023 07:02	WG2172510

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1840		50.0	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	857		3.79	10.0	10	11/24/2023 17:21	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	546		10.0	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	194		0.379	1.00	1	11/24/2023 17:31	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2420		50.0	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	991		3.79	10.0	10	11/24/2023 17:40	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	23800		400	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	13700		37.9	100	100	11/24/2023 17:50	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	6540		200	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	2160		37.9	100	100	11/24/2023 18:00	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	3530		100	1	11/19/2023 16:57	WG2174182

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1810		37.9	100	100	11/24/2023 18:09	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2640		50.0	1	11/20/2023 19:19	WG2174557

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	890		3.79	10.0	10	11/24/2023 18:19	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	13500		200	1	11/20/2023 19:19	WG2174557

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	8300		37.9	100	100	11/24/2023 18:28	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1180		20.0	1	11/20/2023 19:19	WG2174557

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	364		1.90	5.00	5	11/24/2023 18:57	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	11600		200	1	11/20/2023 19:19	WG2174557

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5350		37.9	100	100	11/24/2023 19:06	WG2174496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2930		50.0	1	11/20/2023 17:54	WG2174563

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1100		37.9	100	100	11/24/2023 19:16	WG2174496

Method Blank (MB)

(MB) R4002954-1 11/19/23 16:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1677485-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1677485-03 11/19/23 16:57 • (DUP) R4002954-3 11/19/23 16:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	882	974	1	9.91	J3	5

L1677485-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1677485-04 11/19/23 16:57 • (DUP) R4002954-4 11/19/23 16:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1060	1120	1	5.15	J3	5

Laboratory Control Sample (LCS)

(LCS) R4002954-2 11/19/23 16:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8690	98.8	85.0-115	

Method Blank (MB)

(MB) R4003143-1 11/20/23 19:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1678022-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1678022-02 11/20/23 19:19 • (DUP) R4003143-3 11/20/23 19:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	594	611	1	2.82		5

L1678371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678371-01 11/20/23 19:19 • (DUP) R4003143-4 11/20/23 19:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	906	962	1	6.00	J3	5

Laboratory Control Sample (LCS)

(LCS) R4003143-2 11/20/23 19:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8640	98.2	85.0-115	

Method Blank (MB)

(MB) R4003147-1 11/20/23 17:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1677929-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1677929-02 11/20/23 17:54 • (DUP) R4003147-3 11/20/23 17:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	668	697	1	4.25		5

L1678027-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1678027-05 11/20/23 17:54 • (DUP) R4003147-4 11/20/23 17:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1020	1050	1	2.71		5

Laboratory Control Sample (LCS)

(LCS) R4003147-2 11/20/23 17:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8430	95.8	85.0-115	

Method Blank (MB)

(MB) R4002233-1 11/19/23 22:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00

L1678182-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1678182-02 11/20/23 01:12 • (DUP) R4002233-5 11/20/23 02:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	6.74	6.76	1	0.228		15

L1678182-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1678182-11 11/20/23 04:23 • (DUP) R4002233-6 11/20/23 05:11

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	63.5	63.5	1	0.0313		15

Laboratory Control Sample (LCS)

(LCS) R4002233-2 11/19/23 23:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.9	99.7	90.0-110	

L1678182-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1678182-01 11/20/23 00:25 • (MS) R4002233-3 11/20/23 00:41 • (MSD) R4002233-4 11/20/23 00:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	95.4	116	116	50.9	51.3	1	80.0-120	J6	J6	0.135	15

L1678182-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1678182-11 11/20/23 04:23 • (MS) R4002233-7 11/20/23 05:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	63.5	89.9	66.0	1	80.0-120	J6

Method Blank (MB)

(MB) R4004236-1 11/24/23 09:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00

L1678029-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678029-01 11/24/23 15:37 • (DUP) R4004236-3 11/24/23 15:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	126	126	1	0.00150		15

L1678378-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1678378-01 11/24/23 19:25 • (DUP) R4004236-6 11/24/23 19:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	76.9	77.1	1	0.347		15

Laboratory Control Sample (LCS)

(LCS) R4004236-2 11/24/23 10:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.3	98.3	80.0-120	

L1678029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1678029-01 11/24/23 15:37 • (MS) R4004236-4 11/24/23 15:56 • (MSD) R4004236-5 11/24/23 16:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	126	140	140	34.5	34.3	1	80.0-120	J6	J6	0.0545	15

L1678378-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1678378-01 11/24/23 19:25 • (MS) R4004236-7 11/24/23 19:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	76.9	102	61.6	1	80.0-120	J6

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Arcadis - Chevron - NM
10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to: **Russell Grant**

Email To: **russell.grant@arcadis.com;sheila.hernandez@ar**

Project Description: **UEM4822 - Cooper Jal**

City/State Collected: Jal, NM

Please Circle: PT MT CT ET

Phone: **916-786-5246**

Client Project # **30183400 task 0002**

Lab Project # **CHEVARCNM-COOPERJAL**

Collected by (print): Daniel McGee

Site/Facility ID # **COOPER JAL**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Standard

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1678374
H086

Acctnum: **CHEVARCNM**
Template: **T200378**
Prelogin: **P1036447**
PM: **526 - Chris McCord**
PB: CP 11-8-23

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres	Remarks	Sample # (lab only)
MW-12-W-20231113	G	GW		11-13-23	1320	2	X	X		-01
MW-1-W-20231113		GW			1340	2	X	X		-02
MW-2-W-20231113		GW			1415	2	X	X		-03
MW-5-W-20231113		GW			1445	2	X	X		-04
MW-4-W-20231113		GW			1510	2	X	X		-05
RW-1-W-20231113		GW			1535	2	X	X		-06
DUP-1-W-20231113		GW		11-13-23	—	2	X	X		-07
RW-2-W-20231114		GW		11-14-23	0955	2	X	X		-08
RW-2R-W-20231114		GW			1010	2	X	X		-09
MW-10-W-20231114	G	GW		11-14-23	1030	2	X	X		-10

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking # 6426 8308 5884

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	11-14-23	1615		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0 °C Bottles Received:
	11-14-23	1650		1.9+0=1.9 24
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			(14)	11/15/23 900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Company Name/Address:
Arcadis - Chevron - NM

10205 Westheimer Rd.
#800
Houston. TX 77042

Billing Information:
Accounts Payable
401 East Main Street
Suite 400
El Paso, TX 79901

Pres Chk

Report to:
Russell Grant

Email To:
russell.grant@arcadis.com;sheila.hernandez@ar

Project Description:
UEM4822 - Cooper Jal

City/State Collected: Jal, NM

Please Circle: PT MT (CT) ET

Phone: **916-786-5246**

Client Project #
30183400 task 0002

Lab Project #
CHEVARCNM-COOPERJAL

Collected by (print):
Daniel McGee

Site/Facility ID #
COOPER JAL

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed
standard

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	CHLORIDE 125mlHDPE-NoPres	TDS 250mlHDPE-NoPres								
MW-7-W-20231114	G	GW		11-14-23	1055	2	X	X								-11
MW-9-W-20231114	G	GW		11-14-23	1115	2	X	X								-12
		GW														

Rad 11-14-23

Chain of Custody Page 2 of 2

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MT JULIET, TN

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 678374

Table #

Acctnum: **CHEVARCNM**
Template: **T200378**
Prelogin: **P1036447**
PM: **526 - Chris McCord**
PB: LP 11-8-23

Shipped Via: **FedEX Ground**

Remarks | Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y	N
COC Signed/Accurate:		Y	N
Bottles arrive intact:		Y	N
Correct bottles used:		Y	N
Sufficient volume sent:		Y	N
If Applicable			
VOA Zero Headspace:		Y	N
Preservation Correct/Checked:		Y	N
RAD Screen <0.5 mR/hr:		Y	N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	Sample Receipt Checklist
	11-14-23	1615			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DPA8 °C Bottles Received:	If preservation required by Login: Date/Time
	11-14-23	16:50		1.9+0=1.9 24	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			(14)	11/15/23 900	

Arcadis U.S., Inc.
1004 North Big Spring Street, Suite 121
Midland
Texas 79701
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Fax: 432 687 5401
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District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 349393

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 349393
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the Cooper Jal 2023 Annual Groundwater Monitoring Report: Content Satisfactory 1. Continue to conduct groundwater monitoring at the site on a semi-annual basis, following th SAP approved by NMOCD. 2. Proceed with further evaluation as needed for analyses results for MW-4, MW-5, MW-5A, MW-14, RW-2 3. Provide findings from evaluations and recommendations for path forward in the 2024 annual report. 4. Submit the 2024 Annual Groundwater Monitoring Report by April 1, 2025.	6/20/2024