Jason Michelson
Operations Lead, Portfolio Operations Central

February 14, 2025

New Mexico Oil Conservation Division
5200 Oakland Avenue, N.E. Suite 100
Albuquerque, New Mexico 87113

Re: Lovington Unit Water Plant
2024 Annual Groundwater Monitoring Report
Case No. 1R-394, OGRID No. 4323
Lea County, New Mexico

To whom it may concern:

Please find enclosed the following report:

Lovington Unit Water Plant Site – 2024 Annual Groundwater Monitoring Report, Section 1 –Township 17 South – Range 36 East, Lea County New Mexico.

The Report was prepared by Arcadis U.S., Inc. (Arcadis), on behalf of Chevron Environmental Management Company (CEMC) to document on-going groundwater monitoring activities throughout 2024 at the Site.

Should you have any questions or require additional information please contact Scott Foord with Arcadis at (713) 953-4853 or myself at (832) 854-5601 or you can reach me via email at JMichelson@chevron.com.

Respectfully,

Jason Michelson

Encl. Lovington Unit Water Plant – 2024 Annual Groundwater Monitoring Report

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

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ARCADIS

Chevron Environmental Management Company

2024 Annual Groundwater Monitoring Report

Lovington Unit Water Plant

Lea County, New Mexico

OGRID No. 4323

Case No. 1R394

February 14, 2025

2024 Annual Groundwater Monitoring Report

Lovington Unit Water Plant
Lea County, New Mexico
OGRID No. 4323
Case No. 1R394

February 14, 2025

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1 Introduction

Arcadis U.S., Inc. (Arcadis) submits the Annual Groundwater Monitoring Report herein, on behalf of Chevron Environmental Management Company (CEMC), which summarizes the groundwater monitoring activities conducted in 2024 at the Lovington Unit Water Plant (Site).

The Site is located on land owned by the City of Lovington in the northeast quarter (NE/4) of Section 1, Township 17 South, Range 36 East, Lea County, New Mexico. Geographic coordinates are latitude 32.868054, longitude -103.305479.

The Site is in the Monument-Draw Watershed in Lea County, New Mexico, which is an area with very low topographic relief that has an overall gentle southward slope. The Site is on the eastern edge of an upland that breaks in slope downward into the Monument Draw valley immediately to the east of the Site. Elevations slope from approximately 3,400 feet above mean sea level (ft AMSL) to approximately 3,360 ft AMSL in the Monument Draw. A Site Location Map is presented as **Figure 1**. A Site Detail Map is presented as **Figure 2**. Additional Site background information is in **Appendix A**.

2 Groundwater Monitoring Results

Groundwater at the Site is monitored semi-annually from a network of 16 monitoring wells. The monitoring wells are shown on **Figure 2**. Arcadis performed the first semi-annual groundwater sampling event on July 8-9, 2024, and the second semi-annual groundwater sampling event on October 28-29, 2024. Field monitoring methodologies are described in **Appendix B**.

2.1 Groundwater Gauging Data

Groundwater measurements collected during the 2024 monitoring events indicate:

- Groundwater elevations ranged from:
  - 3713.22 ft AMSL (MW-12) to 3718.17 ft AMSL (MW-1) during the July 2024 event, and
  - 3712.55 ft AMSL (MW-12) to 3718.09 ft AMSL (MW-1) during the October 2024 event.
- The groundwater elevations observed during the 2024 period are consistent with historical levels, with groundwater flow generally to the east.
- The calculated gradient was 0.0086 feet/foot (ft/ft) for the July 2024 gauging event and 0.0069 ft/ft for the October 2024 gauging event.

Potentiometric elevation data for the sampling event is presented in **Table 1**. The groundwater potentiometric surface maps for July and October 2024 are presented on **Figure 3**. A cumulative summary of groundwater potentiometric elevation data is presented in **Appendix C**.

2.2 Groundwater Analytical Results

During the July 2024 monitoring event 12 of the 16 monitoring wells (MW-5 through MW-16) were sampled. Monitoring wells MW-1 through MW-4 were not sampled due to being dry or insufficient volume of groundwater for sample collection.

During the October 2024 monitoring event 12 of the 16 monitoring wells (MW-5 through MW-16) were sampled. Monitoring wells (MW-1 through MW-4) were not sampled due to being dry or insufficient volume of groundwater for sample collection.

Groundwater samples were analyzed for the following:

- Chloride by United States Environmental Protection Agency (USEPA) Method 300.0.
- Total Dissolved Solids (TDS) by USEPA Method 2540C-1997.

Groundwater analytical results for chloride and TDS were compared to the New Mexico Environment Department Water Quality Control Commission (NMWQCC) Groundwater Standards. A summary of the groundwater sample analytical results from the July and October 2024 semi-annual events are presented in **Table 2**. A cumulative summary table of groundwater analytical results from 2010 through 2024 is presented in **Appendix D**. Copies of the certified analytical reports and chain-of-custody documentation from Pace Analytical are provided in **Appendix E**.

The isoconcentration maps for chloride and TDS for the 2024 semi-annual sampling events are presented on **Figures 4 and 5**. The analytical results are further summarized below.

2.2.1 Chloride

- Chloride concentrations during the July 2024 sampling event exceeded the NMWQCC standard of 250 milligrams per liter (mg/L) in:
  - 7 of 12 wells sampled (MW-6, MW-8, MW-11, MW-12, MW-14, MW-15 and MW-16) at concentrations ranging from 268 mg/L (MW-15) to 1,110 mg/L (MW-12).
- Chloride concentrations during the October 2024 sampling event exceeded the NMWQCC standard of 250 mg/L in:
  - 5 of 12 wells sampled (MW-6, MW-8, MW-12, MW-14, and MW-16) at concentrations ranging from 380 mg/L (MW-16) to 1,130 mg/L (MW-12).
- Chloride concentrations in an upgradient well to the west (MW-16) exceeded the NMWQCC standard during both July and October 2024 sampling event, which is consistent with the sampling results reported for the previous 2022 and 2023 events.
- Chloride exceedances in downgradient wells to the east (MW-8 and MW-12) were also reported during both the July and October 2024 sampling events, which is consistent with the sampling results reported for the previous 2022 and 2023 events.

2.2.2 TDS

- TDS concentrations during the July 2024 sampling event exceeded the NMWQCC standard of 1,000 mg/L in:

  - 5 of 12 wells sampled (MW-6, MW-8, MW-12, MW-14, and MW-16) at concentrations ranging from 1,320 mg/L (MW-14) to 4,740 mg/L (MW-6 duplicate sample).
- TDS concentrations during the October 2024 sampling event exceeded the NMWQCC standard of 1,000 mg/L in:
  - 5 of 12 wells (MW-6, MW-8, MW-12, MW-14, and MW-16) at concentrations ranging from 1,440 mg/L (MW-14) to 2,870 mg/L (MW-12).
- TDS concentrations in upgradient well (MW-16) exceeded the NMWQCC standard during both the July and October 2024 sampling events, which is consistent with the sampling results reported for the previous 2021 through 2023 events.
- TDS exceedances in downgradient wells to the east (MW-8 and MW-12) were also reported during both the July and October 2024 sampling events, which is consistent with the sampling results reported for the previous 2021 through 2023 events.

3 2025 Planned Activities

Based upon the findings presented in this report, the following activities are planned:

- Semi-annual groundwater sampling of all Site wells will be performed in 2025 to monitor chloride and TDS concentrations.
- The results will be summarized in the 2025 annual report.

Tables

Table 1
2024 Groundwater Potentiometric Elevation Data
Lovington Unit Water Plant
Lea County, New Mexico

Well ID	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-1	3832.74	4	95'-115'	07/08/24 10/28/24	114.75 114.90	114.57 114.65	3718.17 3718.09
MW-2	3830.96	4	95'-115'	07/08/24 10/28/24	114.38 114.46	DRY DRY	-- --
MW-3	3834.31	4	95'-115'	07/08/24 10/28/24	117.44 115.34	DRY DRY	-- --
MW-4	3831.95	4	95'-115'	07/08/24 10/28/24	114.51 114.61	114.51 DRY	3717.44 --
MW-5	3830.07	4	95'-130'	07/08/24 10/28/24	137.11 131.72	114.32 115.30	3715.75 3714.77
MW-6	3835.60	4	95'-130'	07/08/24 10/28/24	133.74 131.69	120.47 121.30	3715.13 3714.30
MW-7	3834.46	4	95'-132'	07/08/24 10/28/24	136.04 134.39	120.11 120.87	3714.35 3713.59
MW-8	3832.40	4	97'-132'	07/08/24 10/28/24	159.48 134.98	119.00 119.72	3713.40 3712.68
MW-9	3832.62	4	92'-222'	07/08/24 10/28/24	200+ 220.12	116.14 117.15	3716.48 3715.47
MW-10	3828.57	4	92'-223'	07/08/24 10/28/24	200+ 223.32	113.23 114.1	3715.34 3714.47
MW-11	3833.06	4	92'-223'	07/08/24 10/28/24	200+ 222.22	118.18 119.1	3714.88 3713.96
MW-12	3831.71	4	97'-227'	07/08/24 10/28/24	200+ 230.02	118.49 119.16	3713.22 3712.55
MW-13	3831.06	4	104'-234'	07/08/24 10/28/24	200+ 230.02	117.42 118.14	3713.64 3712.92
MW-14	3834.81	4	100'-130'	07/08/24 10/28/24	135.88 134.39	119.52 120.29	3715.29 3714.52
MW-15	3835.75	4	100'-130'	07/08/24 10/28/24	135.92 134.96	120.7 121.47	3715.05 3714.28
MW-16	3835.36	4	100'-130'	07/08/24 10/28/24	136.35 134.21	119.18 119.97	3716.18 3715.39

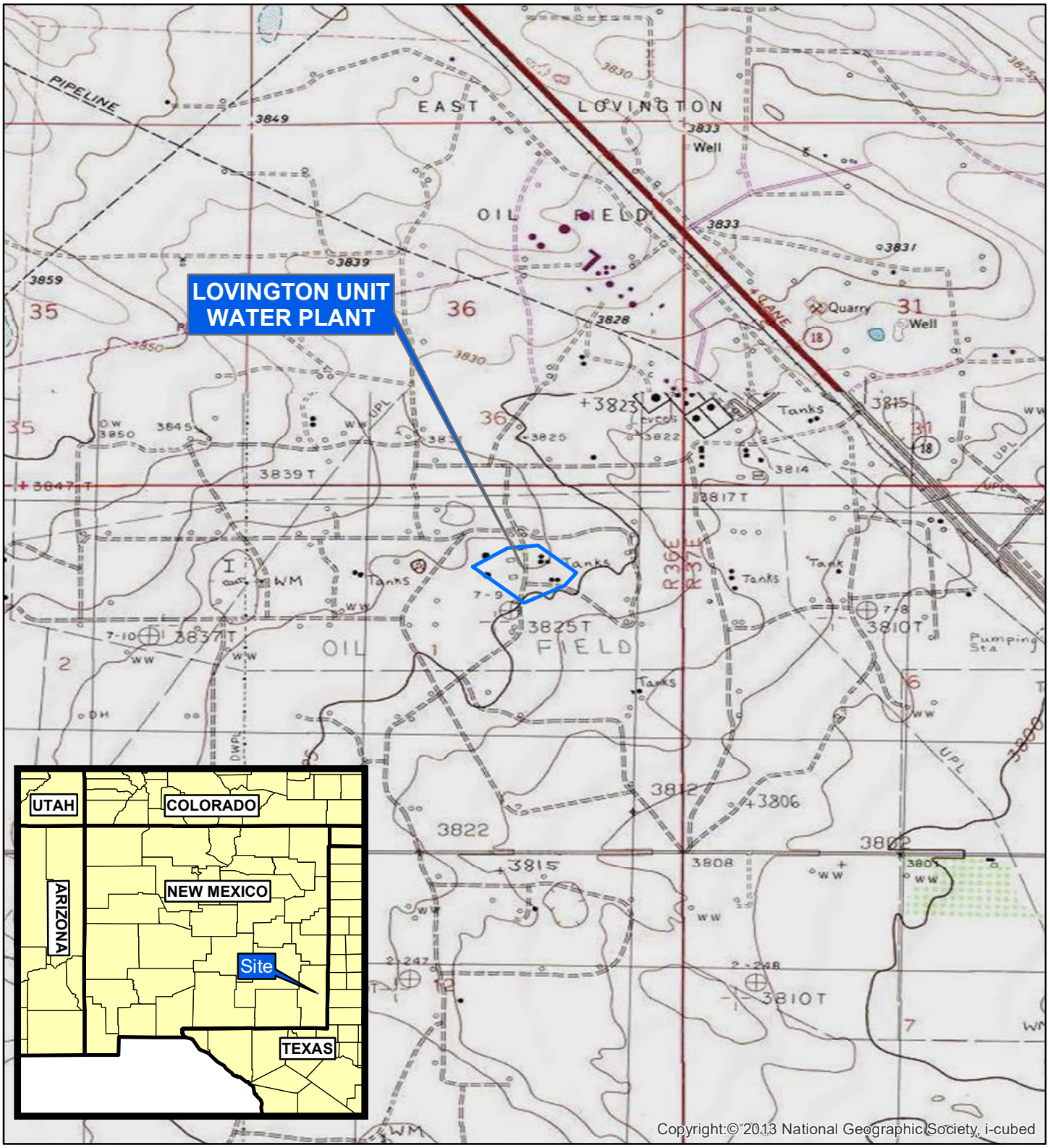
Notes:
[1] TOC - Top of Casing
[2] MSL - Mean Sea Level
[3] bgs - below ground surface
-- - Not Measured
Professional Survey conducted by West Company of Midland, Inc. in March 2013 and January 2015.

Table 2
2024 Groundwater Analytical Results
Lovington Unit Water Plant
Lea County, New Mexico

Sample I.D. No.	Date	NMWQCC Standards	
		Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-1	07/08/24	Insufficient water	
	10/28/24	Insufficient water	
MW-2	07/08/24	Dry	
	10/28/24	Dry	
MW-3	07/08/24	Dry	
	10/28/24	Dry	
MW-4	07/08/24	Insufficient water	
	10/28/24	Dry	
MW-5	07/08/24	189	677
	10/28/24	198 V	707
MW-6	07/08/24	***542***	***1,650***
MW-6	10/28/24	***820***	***2,540***
DUP	10/28/24	***805***	***2,530***
MW-7	07/08/24	168	681
	10/29/24	187	717
MW-8	07/09/24	***476***	***1,540***
	10/29/24	***455***	***1,550***
MW-9	07/08/24	119	528
	10/28/24	117 J6	536
MW-10	07/08/24	187	727
	10/28/24	173	721
MW-11	07/09/24	***313***	964
	10/29/24	230	953
MW-12	07/09/24	***1,110***	***4,140***
DUP	07/09/24	***1,030***	***4,740***
MW-12	10/29/24	***1,130***	***2,870***
MW-13	07/09/24	65.2 J6	470
	10/29/24	91.0	422
MW-14	07/08/24	***443***	***1,320***
	10/29/24	***452***	***1,440***
MW-15	07/08/24	***268***	822
	10/29/24	222	717
MW-16	07/08/24	***675***	***1,950***
	10/28/24	***380***	***1,560***

Notes:
1) Groundwater Quality by EPA Methods 9056 A and 2540 C-2011.
2) ***Bold and Italics*** values indicate concentrations above NMWQCC Standards for Domestic Water Supply.
3) [1] NMWQCC Human Health Standards Per NMAC 20.6.2.3103A.
4) [2] NMWQCC Other Standards for Domestic Water Supply Per NMAC 20.6.2.3103B.
5) < = Analyte not detected at or above the laboratory reporting limit
6) DUP = Duplicate sample
7) mg/L = Milligrams per liter
8) J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
9) V = The sample concentration is too high to evaluate accurate spike recoveries.

Figures



Legend

Site Boundary

Notes:
1. Datum: D_WGS_1984
2. Source: United States Geological Survey 7.5 Minute Quadrangle Map
3. Site Location: 32.868054, -103.305479

0 1,000 2,000 4,000 Feet

N

Chevron Environmental Management Company
Lovington Unit Water Plant
Lea County, New Mexico

SITE LOCATION MAP

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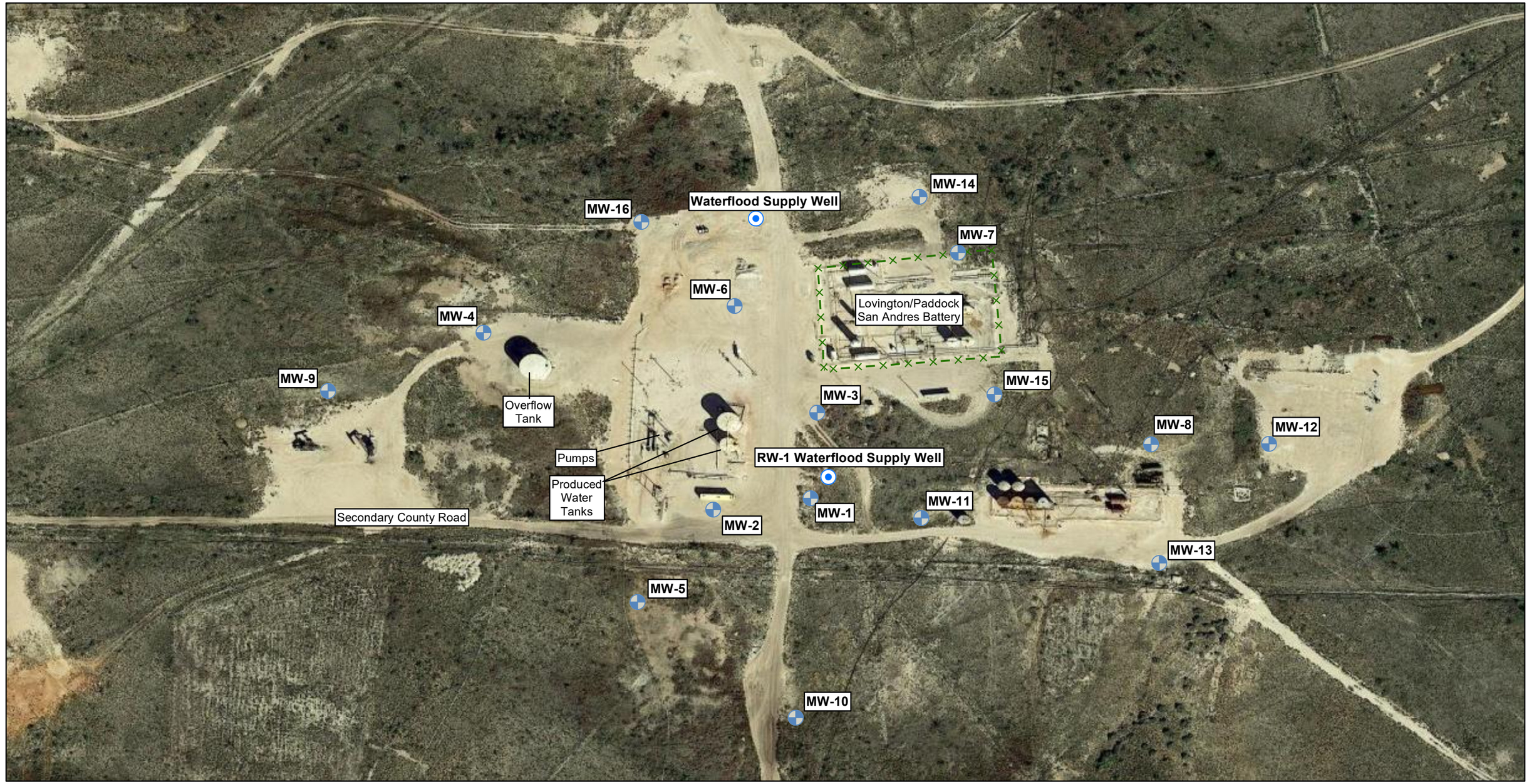
FIGURE 1

Document Path: \\arcadis-us\officedata\Houston-TX\ENV\Chevron Texaco TX8\HES Transfer\Lovington Water Plant\GIS Files\Fig 1 - Site Location Map 01.03.2020.mxd



Legend

- Monitoring Well Location
- Waterflood Supply Well Location
- Fence Line

Notes:
1. Site Location: 32.868054, -103.305479

N

0 75 150 300 Feet

Chevron Environmental Management Company
Lovington Unit Water Plant
Lea County, New Mexico

SITE DETAILS MAP

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FIGURE
2

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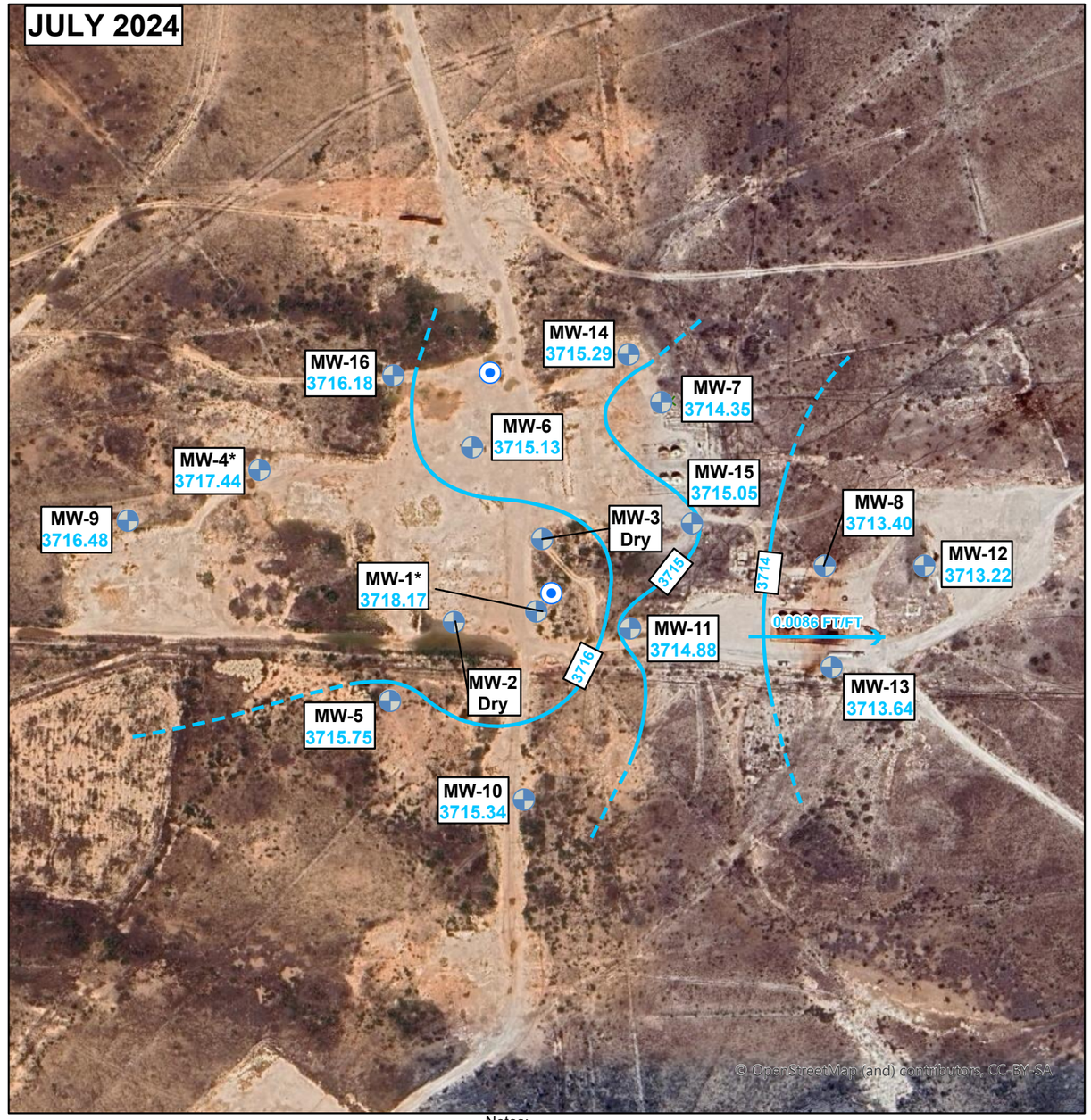

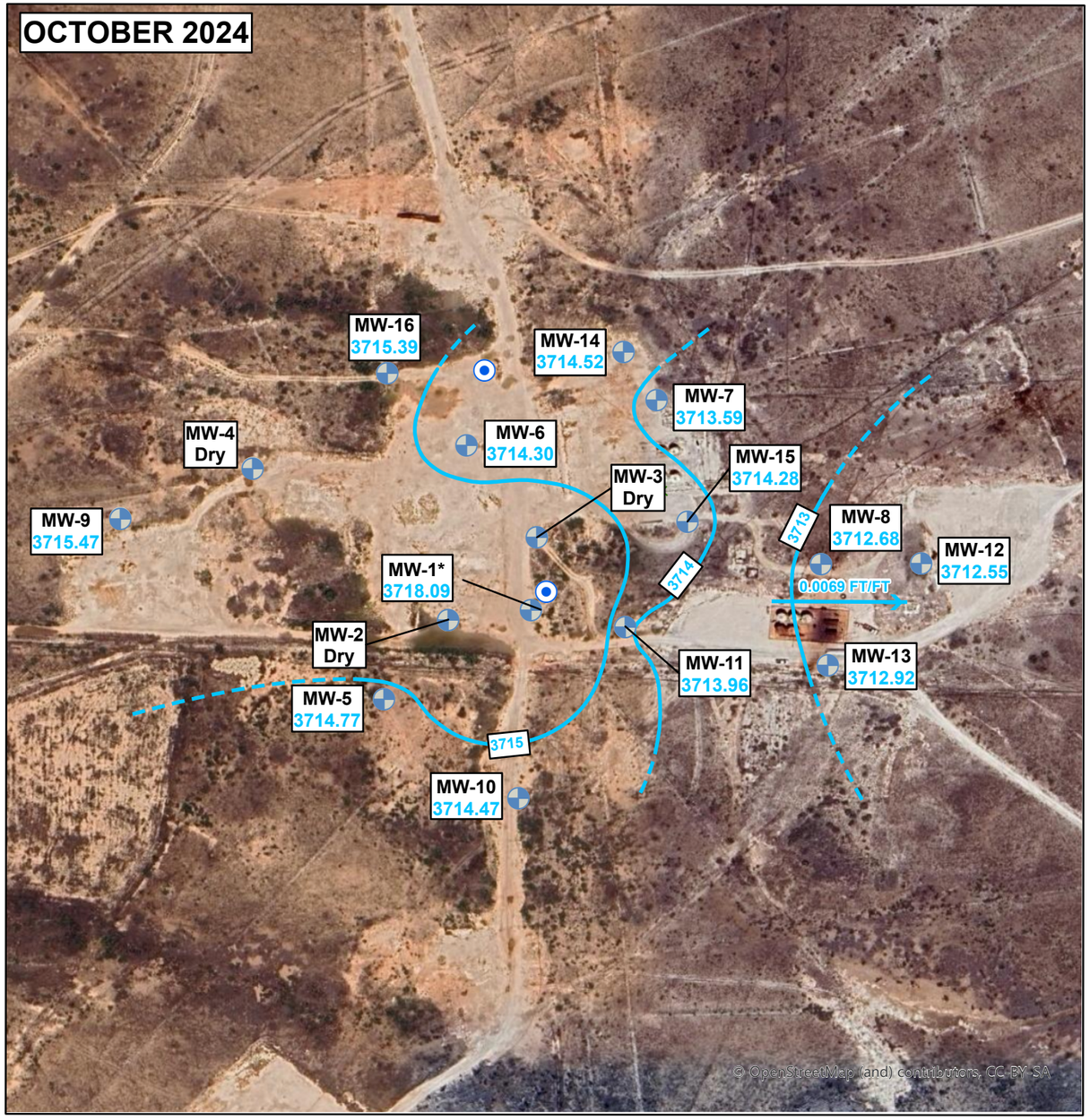

Legend

- Monitoring Well Location
- Waterflood Supply Well Location
- 3716 — Potentiometric Contour and Elevation
- Infered Potentiometric Contour
- 3715.34 — Groundwater Elevation (ft above mean sea level)
- Approximate Groundwater Flow Direction

Notes:
1. Waterflood Supply and Recovery Wells were not sampled.
2. Datum: D_WGS_1984
3. Site Location: 32.868054, -103.305479
4. * = Wells not used for contouring
5. DRY=Well Dry

N

0 125 250 500 Feet

Chevron Environmental Management Company
Lovington Unit Water Plant
Lea County, New Mexico

SEMI-ANNUAL GROUNDWATER POTENTIOMETRIC MAP 2024

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FIGURE 3

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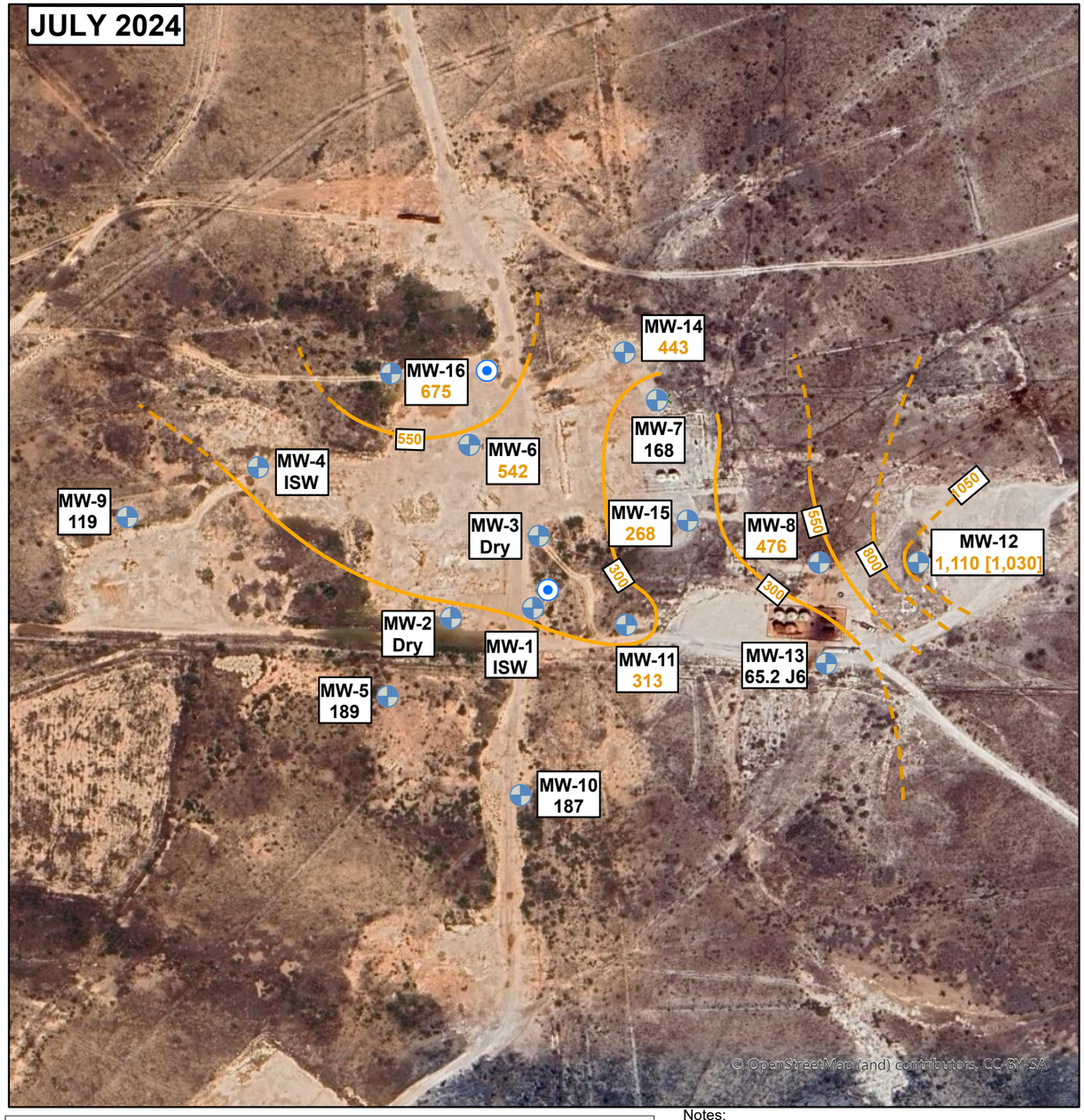

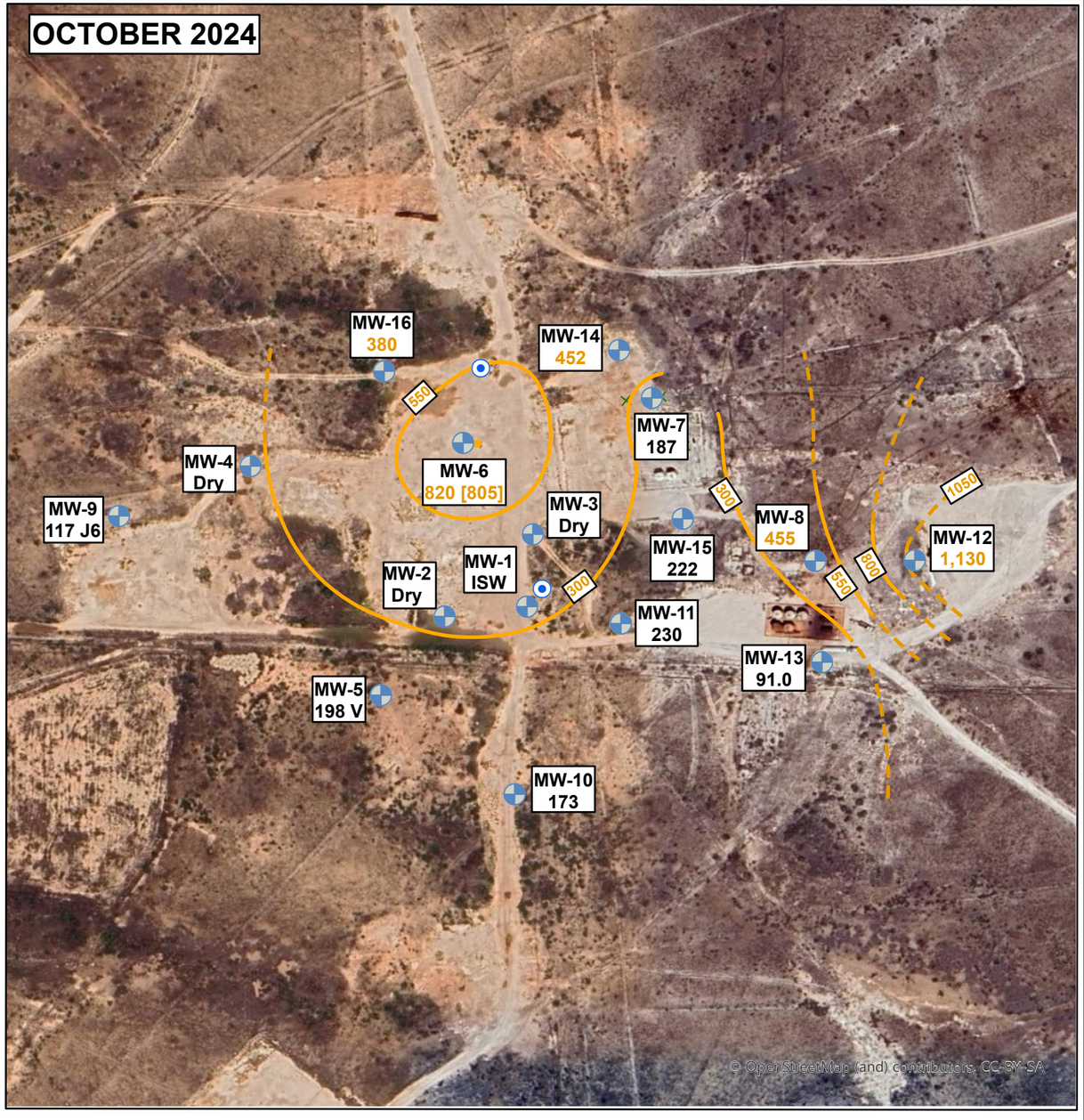

Legend

- Monitoring Well Location
- Waterflood Supply Well Location
- 300 — Chloride Isoconcentration Contour
- Dashed where inferred
- 168 — Chloride Concentration in milligrams per liter (mg/L)
- 542 — Chloride Concentration (mg/L) Exceeds NMWQCC Other Standards for Domestic Water Supply

Notes:
1. Waterflood Supply and Recovery Wells were not sampled.
2. Datum: D_WGS_1984
3. Site Location: 32.868054, -103.305479
4. [ ] = Duplicate sample
5. ISW = Insufficient Water
6. Dry = Well is Dry
7. J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
8. V = The sample concentration is too high to evaluate accurate spike recoveries.

N

0 125 250 500 Feet

Chevron Environmental Management Company
Lovington Unit Water Plant
Lea County, New Mexico

SEMI-ANNUAL CHLORIDE ISOCONCENTRATION MAP 2024

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FIGURE 4

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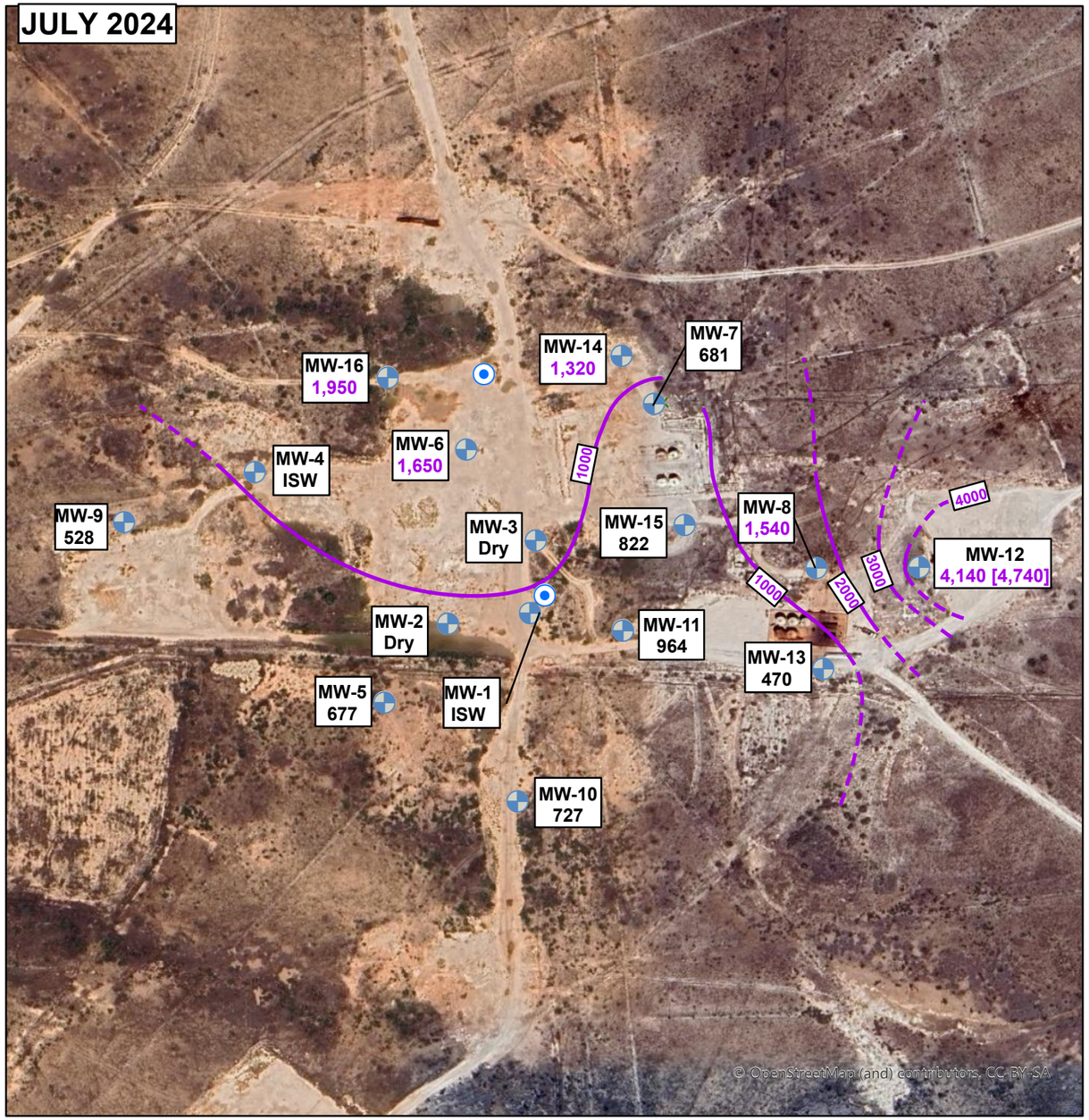

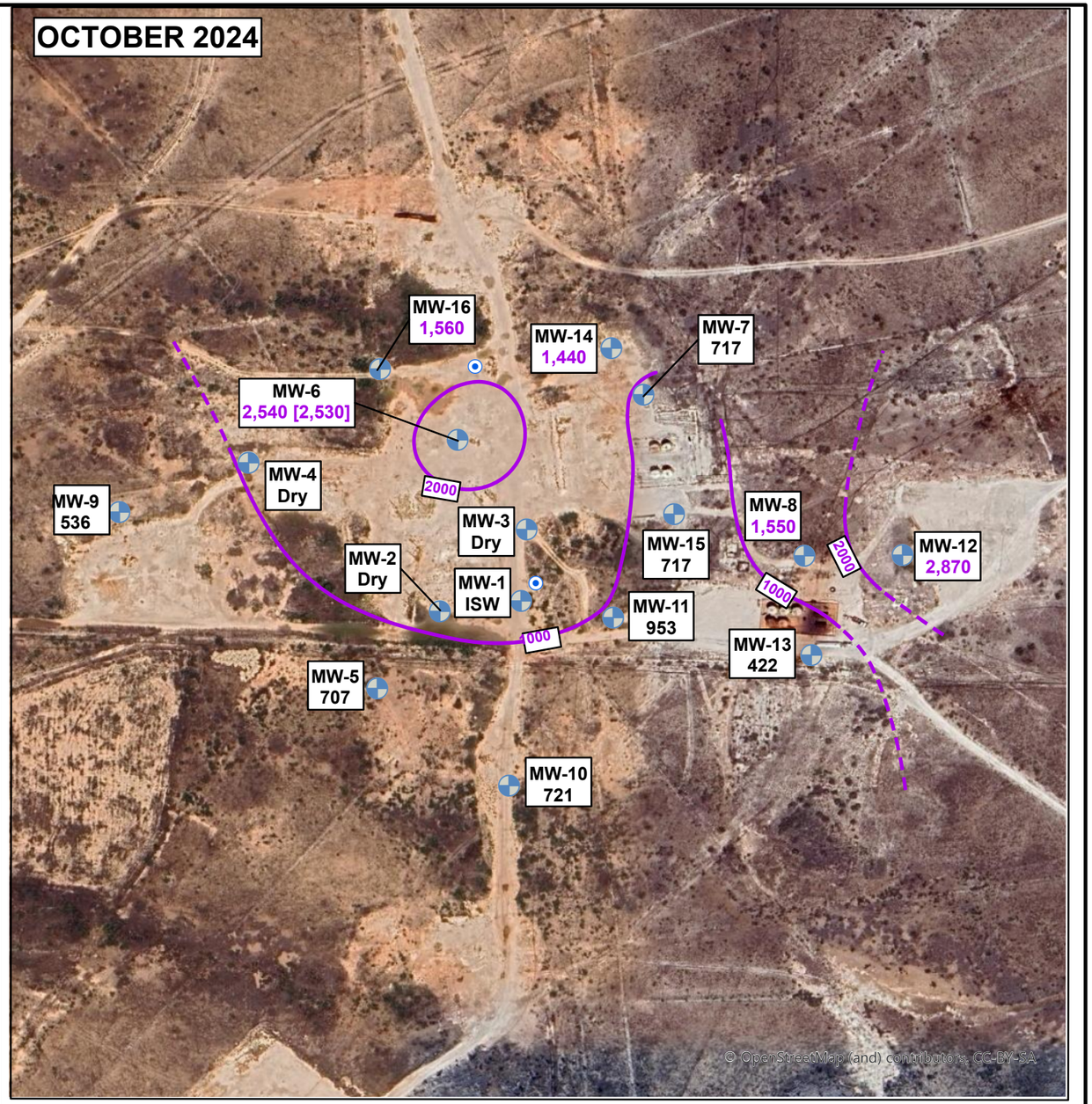

Legend

- Monitoring Well Location
- Waterflood Supply Well Location
- 1000 — Total Dissolved Solids (TDS) Isoconcentration Contour
- Dashed where inferred
- 822 — TDS Concentration in milligrams per liter (mg/L)
- 1,650 — TDS Concentration (mg/L) Exceeds NMWQCC Other Standards for Domestic Water Supply

Notes:
1. Waterflood Supply and Recovery Wells were not sampled.
2. Datum: D_WGS_1984
3. Site Location: 32.868054, -103.3054794
. [ ] = Duplicate sample
5. ISW = Insufficient Water

N

0 125 250 500 Feet

Chevron Environmental Management Company
Lovington Unit Water Plant
Lea County, New Mexico

SEMI-ANNUAL TDS ISOCONCENTRATION MAP 2024

ARCADIS

FIGURE 5

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Appendix A

Site Background

GEOLOGY/HYDROGEOLOGY ASSESSMENT

Site Setting

The Site is located approximately 5 miles southeast of the City of Lovington, in Lea County, New Mexico. The Site is located on land owned by the City of Lovington in the northeast quarter of Section 1, Township 17 South, Range 36 East. Geographic coordinates are 32° 52' 3.77" N latitude, 103° 18' 20.39" W longitude.

The Site is in the Monument-Draw Watershed in Lea County, New Mexico, which is an area with very low topographic relief that has an overall gentle southward slope. The Site is on the eastern edge of an upland that breaks in slope downward into the Monument Draw valley immediately to the east of the Site. Elevations slope from approximately 3,400 feet above mean sea level (ft AMSL) to approximately 3,360 feet in Monument Draw.

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 logs from the September 2018 GHD field work and logs from previous groundwater assessments. The locations of the soil borings and monitoring wells are shown on Figure 2 (GHD, 2018, Report No 13). The subsurface stratigraphy typically included the following:

- A zone of caliche-cemented fine to medium sand, typically 15 to 20 ft below ground surface (bgs)
- An underlying unconsolidated fine sand layer ranging from 20 to 50 ft bgs
- An unconsolidated very fine to fine sand layer ranging from 50 to 130 ft bgs

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). 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 107 to 115 ft bgs, based on the groundwater monitoring event conducted in October 2018. The local groundwater flow direction trends to the east with an average horizontal hydraulic gradient of approximately 0.006 feet per foot (ft/ft). The east to southeast groundwater flow direction observed at the Site is consistent with the regional groundwater flow direction to the southeast.

REGULATORY BACKGROUND

Sometime between 2000 and 2010, a surface release of produced water (i.e., chlorides) occurred from a saltwater disposal pipeline operated by Rice Operating Company located approximately 700 feet southeast of the Site. The release was in the area of the City of Lovington's public water supply wells, and in a downgradient area regarding groundwater elevations in the Ogallala Aquifer. Specific details of the release are not available (GHD, 2018, Report No 13).

The City of Lovington requested Chevron assess chloride groundwater impacts resulting from operation of Chevron's water processing plant. Four monitoring wells, MW-1 through MW-4, were installed by Stantec Consulting Corporation (Stantec) in January 2010. The highest chloride concentration in soil was present at a depth of 40 feet below bgs at MW-4. Chloride impacted soil was observed at depths less than 20 feet bgs at MW-1 through MW-3. Groundwater from all four wells was sampled in January and February 2010. Chloride and total dissolved solids (TDS) concentrations in groundwater from MW-1 through MW-3 exceeded the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards set forth in New Mexico Administrative Code (NMAC) Section 20.6.2.3103B. Both chloride and TDS concentrations in groundwater at MW-4 were below standards in both samples collected in 2010.

Quarterly monitoring was initiated in 2011. Additional monitoring wells, MW-5 through MW-8, were installed in February and March 2012 to further assess the dissolved-phase chloride plume. All eight monitoring wells were gauged and sampled on a quarterly basis through 2013. Based on the previous results, the monitoring program was changed to semi-annual in 2014.

In 2016, recovery well RW-1 was installed to remediate/control expansion of the chloride plume and to provide water to the waterflood supply program, as well as three additional monitoring wells (MW-9, MW-10, and MW-11) to further delineate the chloride groundwater plume. The monitoring wells were placed around the Site perimeter, and RW-1 was placed between MW-1 and MW-3 in the central plume area.

Recovery well RW-1 serves both as a remediation well for recovery of chloride-impacted groundwater from the aquifer, and as a water supply well for the oil field's waterflood system. The radial gradient induced by the water extraction at RW-1 is also intended to aid in stabilizing the chloride plume by pulling chloride-impacted groundwater inward toward the central plume area.

Due to downgradient expansion of the chloride plume to MW-12 during 2017 and elevated chloride concentrations in MW-4, MW-6, and MW-7, three monitoring wells (MW-14, MW-15, MW-16) and four soil borings (SB-1 through SB-4) were installed during 2018 (GHD, 2018, Report No 13).

REGULATORY FRAMEWORK

The NMOCD provides guidance for remediation of contaminants of oil field wastes or products in Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993). These guidelines require remediation of groundwater to human health standards of the NMWQCC established in New Mexico Administrative Code Section 20.6.2.3103. Standards for chloride and TDS are listed below.

Analyte	NMWQCC Standard for Groundwater (mg/L)
Chloride	250
Total Dissolved Solids (TDS)	1,000

Note: mg/L = milligrams per liter

2018 HYDROGEOLOGY ASSESSMENT

On September 5th, 2018, GHD began installation of additional soil borings and monitoring wells at the Site to further delineate the vertical and horizontal extent of chloride impacts in the groundwater and evaluate Site hydrogeological conditions. NMOSE approvals for installation were received on December 13, 2017, and August 10, 2018.

Soil Boring and Monitoring Well Installation

Three monitoring wells, MW-14 through MW-16, and four soil borings, SB-1 through SB-4, were installed at the Site on September 5 and September 6, 2018, with the use of air rotary and mud rotary drilling equipment by Harrison & Cooper, Inc (HCI). The soil boring for each monitoring well installation was continuously drilled to 90 feet bgs prior to transitioning to mud rotary.

The three monitoring wells were constructed with four-inch diameter, schedule 40 PVC casing and with 30-feet of well screen (0.020-inch slotted screen). Well construction details included an 8/16 sand filter pack around the well screen, bentonite seal above the filter pack with riser casing to the ground surface. The wells were completed at the surface with stick-up well protectors set in a concrete pad. Well registration documentation was submitted to the NMOSE by HCI in November 2018. The monitoring wells were surveyed by West Company of Midland, Texas on November 13, 2018.

Appendix B

Field Methodology

FIELD METHODOLOGY

Groundwater Sampling

Field equipment was decontaminated with an Alconox™ wash and distilled water rinse before beginning field activities and between wells. Groundwater gauging was conducted prior to sampling activities.

Prior to sampling, static fluid water levels were measured with an electronic interface probe to the nearest hundredth of a foot and recorded. In addition, a conductivity probe was used to record the conductivity levels every 5 feet in each well to evaluate the vertical distribution of chloride-affected groundwater. After recording conductivity levels, discrete samples were collected at the interval of highest conductivity using a Hydrasleeve™. Geochemical water quality parameters (pH, temperature, and conductivity) were recorded at the sampling depth. All non-disposable groundwater sampling equipment was thoroughly decontaminated between measurements to prevent possible cross-contamination between wells. Laboratory-supplied sample containers were filled directly from the Hydrasleeve™.

Groundwater samples were placed on ice in insulated coolers and chilled to a temperature of approximately 4°C. The coolers were sealed for shipment with proper chain-of-custody documentation. Groundwater samples were submitted by Arcadis under chain-of-custody (COC) protocol to Pace Analytical for analysis of chloride by Environmental Protection Agency (EPA) Method 300.0 and total dissolved solids (TDS) by SM 2540C.

Appendix C

Cumulative Summary of Groundwater Potentiometric Elevation Data

Appendix C
Cumulative Summary of Groundwater Potentiometric Elevation data
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-01	3832.74	4	95'-115'	01/19/10	115.00	100.31	3732.43
				02/25/10	115.00	100.41	3732.33
				03/01/11	115.00	102.20	3730.54
				04/13/11	115.00	102.40	3730.34
				07/15/11	115.00	102.58	3730.16
				12/22/11	115.00	102.63	3730.11
				03/22/12	115.00	103.87	3728.87
				06/13/12	115.00	103.89	3728.85
				09/27/12	115.00	104.25	3728.49
				12/19/12	115.00	104.97	3727.77
				01/17/13	115.00	106.98	3725.76
				04/18/13	115.00	105.47	3727.27
				07/18/13	115.00	105.60	3727.14
				10/17/13	115.00	105.59	3727.15
				03/06/14	115.00	105.63	3727.11
				09/09/14	115.00	106.02	3726.72
				03/11/15	115.00	106.26	3726.48
				09/16/15	115.00	106.53	3726.21
				03/30/16	114.75	107.20	3725.54
				09/05/16	---	107.80	3724.94
				03/06/17	115.73	108.98	3723.76
				09/05/17	---	112.20	3720.54
				04/12/18	115.40	113.64	3719.10
				10/01/18	---	Dry	---
				02/07/19	115.24	114.40	3718.34
				12/02/19	115.25	111.70	3721.04
				04/20/20	115.32	110.01	3722.73
				05/12/21	114.98	Dry	---
				11/16/21	114.76	113.20	3719.54
				05/16/22	114.89	114.07	3718.67
				11/15/22	114.89	114.52	3718.22
				07/24/23	114.87	114.63	3718.11
				11/06/23	112.90	Dry	---
				07/08/24	114.75	114.57	3718.17
				10/28/24	114.90	114.65	3718.09
MW-02	3830.96	4	95'-115'	01/19/10	115.00	98.10	3732.86
				02/25/10	115.00	98.17	3732.79
				03/01/11	115.00	99.89	3731.07
				04/13/11	115.00	100.03	3730.93
				07/15/11	115.00	100.41	3730.55
				12/22/11	115.00	100.53	3730.43
				03/22/12	115.00	101.60	3729.36
				06/13/12	115.00	101.60	3729.36
				09/27/12	115.00	102.02	3728.94
				12/19/12	115.00	102.68	3728.28
				01/17/13	115.00	103.40	3727.56
				04/19/13	115.00	102.93	3728.03
				07/18/13	115.00	103.30	3727.66
				10/17/13	115.00	103.54	3727.42
				03/06/14	115.00	114.95	3716.01
				09/09/14	115.00	103.70	3727.26
				03/15/15	115.00	104.09	3726.87
				09/16/15	115.00	104.30	3726.66
				03/30/16	114.82	104.93	3726.03
				09/05/16	---	105.55	3725.41
				03/06/17	114.98	106.61	3724.35
				09/05/17	---	108.45	3722.51
				04/12/18	114.97	109.87	3721.09
				10/01/18	114.71	110.65	3720.31
				02/04/19	115.37	110.76	3720.20
				12/02/19	116.75	108.08	3722.88
				04/20/20	114.81	107.51	3723.45
				05/12/21	114.92	109.88	3721.08
				11/17/21	114.50	111.02	3719.94
				05/16/22	114.85	111.80	3719.16
				11/15/22	114.85	112.87	3718.09
				07/24/23	114.94	113.98	3716.98
				11/06/23	114.92	114.35	3716.61
				07/08/24	114.38	DRY	---
				10/28/24	114.46	DRY	---

Appendix C
Cumulative Summary of Groundwater Potentiometric Elevation data
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-03	3834.31	4	95'-115'	01/19/10	115.00	101.96	3732.35
				02/25/10	115.00	102.10	3732.21
				03/01/11	115.00	103.94	3730.37
				04/13/11	115.00	104.30	3730.01
				07/15/11	115.00	104.76	3729.55
				12/22/11	115.00	104.98	3729.33
				03/22/12	115.00	105.60	3728.71
				06/13/12	115.00	105.50	3728.81
				09/27/12	115.00	105.83	3728.48
				12/19/12	115.00	106.69	3727.62
				01/17/13	115.00	107.03	3727.28
				04/19/13	115.00	106.85	3727.46
				07/18/13	115.00	107.33	3726.98
				10/17/13	115.00	107.30	3727.01
				03/06/14	115.00	107.03	3727.28
				09/09/14	115.00	107.50	3726.81
				03/11/15	115.00	107.82	3726.49
				09/16/15	115.00	107.98	3726.33
				03/30/16	115.07	108.70	3725.61
				09/05/16	---	109.30	3725.01
				03/06/17	115.91	110.31	3724.00
				09/05/17	---	112.61	3721.70
				04/12/18	---	113.98	3720.33
				10/01/18	115.00	114.80	3719.51
				02/04/19	116.12	115.02	3719.29
				12/02/19	115.20	111.94	3722.37
				04/20/20	115.20	111.46	3722.85
				05/12/21	115.06	113.49	3720.82
				11/17/21	115.21	114.69	3719.62
				05/16/22	115.32	115.08	3719.23
				11/15/22	115.32	115.32	3718.99
				07/24/23	115.31	115.20	3719.11
				11/06/23	115.20	DRY	--
				07/08/24	117.44	DRY	--
				10/28/24	115.34	DRY	--
MW-04	3831.95	4	95'-115'	01/19/10	115.00	98.23	3733.72
				02/25/10	115.00	98.28	3733.67
				03/01/11	115.00	99.94	3732.01
				04/13/11	115.00	100.18	3731.77
				07/15/11	115.00	100.45	3731.50
				12/22/11	115.00	100.48	3731.47
				03/22/12	115.00	101.50	3730.45
				06/13/12	115.00	101.55	3730.40
				09/27/12	115.00	102.07	3729.88
				12/19/12	115.00	102.84	3729.11
				01/17/13	115.00	102.91	3729.04
				04/18/13	115.00	102.78	3729.17
				07/18/13	115.00	103.23	3728.72
				10/17/13	115.00	103.18	3728.77
				03/06/14	115.00	103.05	3728.90
				09/08/14	115.00	103.62	3728.33
				03/10/15	115.00	103.89	3728.06
				09/16/15	115.00	104.25	3727.70
				03/30/16	114.53	105.09	3726.86
				09/05/16	115.00	105.91	3726.04
				03/06/17	114.83	106.87	3725.08
				09/05/17	115.00	107.78	3724.17
				04/12/18	114.60	108.08	3723.87
				10/01/18	114.91	109.15	3722.80
				02/04/19	115.11	108.53	3723.42
				12/02/19	114.58	107.27	3724.68
				04/20/20	114.52	106.61	3725.34
				05/12/21	114.90	109.64	3722.31
				11/17/21	114.66	111.13	3720.82
				05/16/22	114.60	111.78	3720.17
				11/15/22	114.60	113.12	3718.83
				07/24/23	114.72	114.42	3717.53
				11/06/23	114.65	114.44	3717.51
				07/08/24	114.51	114.51	3717.44
				10/28/24	114.61	DRY	--

Appendix C
Cumulative Summary of Groundwater Potentiometric Elevation data
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-05	3830.07	4	95'-130'	03/22/12	133.00	100.15	3729.92
				06/13/12	133.00	100.23	3729.84
				09/27/12	133.00	100.72	3729.35
				12/19/12	133.00	101.28	3728.79
				01/17/13	133.00	101.65	3728.42
				04/18/13	133.00	101.70	3728.37
				07/18/13	133.00	101.81	3728.26
				10/17/13	133.00	102.03	3728.04
				03/06/14	133.00	102.03	3728.04
				09/08/14	133.00	102.44	3727.63
				03/10/15	133.00	103.20	3726.87
				09/16/15	133.00	102.99	3727.08
				03/30/16	132.60	103.70	3726.37
				09/05/16	---	104.26	3725.81
				03/06/17	---	105.27	3724.80
				09/05/17	---	106.50	3723.57
				04/12/18	131.95	107.61	3722.46
				10/01/18	131.83	108.63	3721.44
				02/04/19	131.73	108.66	3721.41
				12/02/19	131.31	106.74	3723.33
				04/20/20	131.41	106.17	3723.90
				05/12/21	131.96	108.41	3721.66
				11/17/21	131.57	109.86	3720.21
				05/16/22	131.31	110.59	3719.48
				11/15/22	131.31	111.71	3718.36
				07/24/23	131.69	112.68	3717.39
				11/06/23	131.81	113.33	3716.74
				07/08/24	137.11	114.32	3715.75
				10/28/24	131.72	115.30	3714.77
MW-06	3835.60	4	95'-130'	03/22/12	133.00	106.73	3728.87
				06/13/12	133.00	106.56	3729.04
				09/27/12	133.00	107.00	3728.60
				12/19/12	133.00	108.28	3727.32
				01/17/13	133.00	108.60	3727.00
				04/19/13	133.00	107.83	3727.77
				07/18/13	133.00	108.80	3726.80
				10/17/13	133.00	108.75	3726.85
				03/06/14	133.00	107.89	3727.71
				09/09/14	133.00	108.31	3727.29
				03/10/15	133.00	108.56	3727.04
				09/16/15	133.00	108.98	3726.62
				03/30/16	131.70	109.60	3726.00
				09/05/16	---	110.25	3725.35
				03/06/17	132.40	111.30	3724.30
				09/05/17	---	112.50	3723.10
				04/12/18	131.80	113.51	3722.09
				10/01/18	131.80	114.40	3721.20
				02/04/19	131.20	114.49	3721.11
				12/02/19	131.20	112.54	3723.06
				04/20/20	131.62	112.08	3723.52
				05/12/21	132.68	114.39	3721.21
				11/17/21	131.61	115.70	3719.90
				05/16/22	131.69	116.41	3719.19
				11/15/22	131.69	117.41	3718.19
				07/24/23	131.72	118.77	3716.83
				11/06/23	131.95	119.34	3716.26
				07/08/24	133.74	120.47	3715.13
				10/28/24	131.69	121.30	3714.30
MW-07	3834.46	4	95'-132'	03/22/12	135.00	105.97	3728.49
				06/13/12	135.00	106.23	3728.23
				09/27/12	135.00	106.44	3728.02
				12/19/12	135.00	107.31	3727.15
				01/17/13	135.00	107.53	3726.93
				04/18/13	135.00	107.46	3727.00
				07/18/13	135.00	108.01	3726.45
				10/17/13	135.00	107.98	3726.48
				03/06/14	135.00	107.55	3726.91
				09/09/14	135.00	108.05	3726.41
				03/10/15	135.00	108.50	3725.96
				09/16/15	135.00	108.68	3725.78

Appendix C
Cumulative Summary of Groundwater Potentiometric Elevation data
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-7 cont.	3834.46	4	95'-132'	03/30/16	134.90	109.41	3725.05
				09/05/16	---	110.12	3724.34
				03/06/17	135.21	110.80	3723.66
				09/05/17	---	111.88	3722.58
				04/12/18	135.70	113.28	3721.18
				10/01/18	135.40	114.02	3720.44
				02/04/19	135.44	114.29	3720.17
				12/02/19	134.70	112.77	3721.69
				04/20/20	134.76	112.46	3722.00
				05/12/21	135.35	114.22	3720.24
				11/17/21	134.76	115.73	3718.73
				05/16/22	134.91	116.18	3718.28
				11/15/22	134.91	117.11	3717.35
				07/24/23	135.03	118.53	3715.93
				11/06/23	136.31	119.02	3715.44
				07/08/24	136.04	120.11	3714.35
				10/28/24	134.39	120.87	3713.59
MW-08	3832.40	4	97'-132'	03/22/12	135.00	104.71	3727.69
				06/13/12	135.00	104.84	3727.56
				09/27/12	135.00	105.21	3727.19
				12/19/12	135.00	105.82	3726.58
				01/17/13	135.00	106.10	3726.30
				04/18/13	135.00	106.27	3726.13
				07/18/13	135.00	106.55	3725.85
				10/17/13	135.00	106.55	3725.85
				03/06/14	135.00	106.75	3725.65
				09/09/14	135.00	107.27	3725.13
				03/10/15	135.00	107.59	3724.81
				09/16/15	135.00	107.73	3724.67
				03/30/16	135.23	108.35	3724.05
				09/05/16	---	108.82	3723.58
				03/06/17	135.50	109.65	3722.75
				09/05/17	---	110.70	3721.70
				04/12/18	135.63	112.23	3720.17
				10/01/18	134.81	112.40	3720.00
				02/04/19	134.99	113.48	3718.92
				12/03/19	132.54	112.38	3720.02
				04/20/20	135.10	112.00	3720.40
				05/12/21	135.76	113.48	3718.92
				11/17/21	134.86	114.71	3717.69
				05/16/22	135.62	115.50	3716.90
				11/15/22	135.62	116.22	3716.18
				07/24/23	134.91	117.42	3714.98
				11/06/23	135.35	117.91	3714.49
				07/08/24	159.48	119.00	3713.40
				10/28/24	134.98	119.72	3712.68
MW-09	3832.62	4	92'-222'	09/05/16	226.00	105.77	3726.85
				03/06/17	226.83	106.58	3726.04
				09/05/17	---	107.60	3725.02
				04/12/18	226.89	107.75	3724.87
				10/01/18	225.03	109.08	3723.54
				02/04/19	231.60	108.27	3724.35
				12/02/19	280.25	106.50	3726.12
				04/20/20	---	105.80	3726.82
				05/12/21	---	109.39	3723.23
				11/17/21	---	110.95	3721.67
				05/16/22	200+	111.56	3721.06
				11/15/22	200+	113.12	3719.50
				07/24/23	224.37	114.19	3718.43
				11/06/23	---	115.04	3717.58
				07/08/24	200+	116.14	3716.48
				10/28/24	220.12	117.15	3715.47

Appendix C
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Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-10	3828.57	4.00	92'-223'	09/05/16	223.00	103.08	3725.49
				03/06/17	222.91	104.30	3724.27
				09/05/17	---	105.25	3723.32
				04/12/18	223.21	106.51	3722.06
				10/01/18	223.04	107.48	3721.09
				02/04/19	224.42	107.82	3720.75
				12/02/19	223.00	106.14	3722.43
				04/20/20	---	105.60	3722.97
				05/12/21	---	107.52	3721.05
				11/17/21	---	108.82	3719.75
				05/16/22	200+	109.57	3719.00
				11/15/22	200+	110.62	3717.95
				07/24/23	223.34	111.64	3716.93
				11/06/23	200.00	112.21	3716.36
				07/08/24	200+	113.23	3715.34
				10/28/24	223.32	114.10	3714.47
MW-11	3833.06	4.00	92'-223'	09/05/16	225.00	108.05	3725.01
				03/06/17	227.57	109.32	3723.74
				09/05/17	---	111.38	3721.68
				04/12/18	225.42	112.71	3720.35
				10/01/18	226.31	113.60	3719.46
				02/04/19	226.64	113.95	3719.11
				12/3/2019	225.00	11.27	3821.79
				4/20/2020	---	110.72	3722.34
				05/12/21	---	112.68	3720.38
				11/17/21	---	113.79	3719.27
				05/16/22	200+	114.54	3718.52
				11/15/22	200+	115.52	3717.54
				07/24/23	224.82	116.98	3716.08
				11/06/23	200.00	117.16	3715.90
				07/08/24	200+	118.18	3714.88
				10/28/24	222.22	119.10	3713.96
MW-12	3831.71	4	97'-227'	09/05/17	227.00	110.07	3721.64
				04/12/18	227.87	111.37	3720.34
				10/01/18	227.89	112.10	3719.61
				02/04/19	226.34	112.69	3719.02
				12/03/19	229.85	111.95	3719.76
				04/20/20	---	111.60	3720.11
				05/12/21	---	112.98	3718.73
				11/17/21	---	114.09	3717.62
				05/16/22	200+	114.82	3716.89
				11/15/22	200+	115.66	3716.05
				07/24/23	230.18	116.88	3714.83
				11/06/23	200.00	117.37	3714.34
				07/08/24	200+	118.49	3713.22
				10/28/24	230.02	119.16	3712.55
MW-13	3831.06	4	104'-234'	09/05/17	234.00	109.22	3721.84
				04/12/18	235.80	110.57	3720.49
				10/01/18	230.61	111.41	3719.65
				02/04/19	234.82	111.86	3719.20
				12/03/19	227.18	110.81	3720.25
				04/20/20	---	110.38	3720.68
				05/12/21	---	111.98	3719.08
				11/17/21	---	113.16	3717.90
				05/16/22	200+	113.75	3717.31
				11/15/22	200+	114.65	3716.41
				07/24/23	223.57	115.86	3715.20
				11/06/23	200.00	116.32	3714.74
				07/08/24	200+	117.42	3713.64
				10/28/24	230.02	118.14	3712.92
MW-14	3834.81	4	100'-130'	10/01/18	134.51	113.14	3721.67
				02/04/19	134.53	113.44	3721.37
				12/02/19	134.55	112.05	3722.76
				04/20/20	134.61	111.71	3723.10
				05/12/21	136.41	113.68	3721.13
				11/17/21	134.30	114.81	3720.00
				05/16/22	134.91	115.51	3719.30
				11/15/22	134.91	116.48	3718.33
				07/24/23	134.65	117.91	3716.90
				11/06/23	135.39	118.41	3716.40
				07/08/24	135.88	119.52	3715.29
				10/28/24	134.39	120.29	3714.52

Appendix C
Cumulative Summary of Groundwater Potentiometric Elevation data
Lovington Unit Water Plant
Lea County, New Mexico

Well	TOC elev[1]	Well Diameter (inches)	Screen Interval (ft bgs[3])	Date	Total Depth (ft below TOC)	Depth to Water (ft below TOC)	Corrected Groundwater Elevation (ft above MSL[2])
MW-15	3835.75	4	100'-130'	10/01/18	134.76	115.13	3720.62
				02/05/19	135.00	115.59	3720.16
				12/02/19	134.40	113.63	3722.12
				04/20/20	134.13	113.30	3722.45
				05/12/21	134.97	114.97	3720.78
				11/17/21	134.14	116.16	3719.59
				05/16/22	134.47	116.90	3718.85
				11/15/22	134.47	117.81	3717.94
				07/24/23	134.13	119.14	3716.61
				11/06/23	137.04	119.62	3716.13
				07/08/24	135.92	120.70	3715.05
				10/28/24	134.96	121.47	3714.28
MW-16	3835.36	4	100'-130'	10/01/18	134.10	112.44	3722.92
				02/04/19	134.70	112.27	3723.09
				12/02/19	134.15	110.77	3724.59
				04/20/20	134.23	110.27	3725.09
				05/12/21	136.37	112.88	3722.48
				11/17/21	133.98	114.18	3721.18
				05/16/22	133.86	114.85	3720.51
				11/15/22	133.86	116.00	3719.36
				07/24/23	134.01	117.40	3717.96
				11/06/23	134.62	118.01	3717.35
				07/08/24	136.35	119.18	3716.18
				10/28/24	134.21	119.97	3715.39

Notes:
[1] TOC - Top of Casing
[2] MSL - Mean Sea Level
[3] bgs - below ground surface
ft = Feet
--- = Not Measured
Professional Survey conducted by West Company of Midland, Inc. in March 2013 and January 2015.

Appendix D

Cumulative Summary of Groundwater Analytical Results

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-1		01/19/10	**336**	**1,080**
		02/25/10	**357**	**1,100**
		03/01/11	**264**	870
		04/13/11	**348**	**1,070**
		07/15/11	**271**	740
		12/22/11	**332**	**1,120**
	DUP	12/22/11	**339**	**1,010**
		03/22/12	**485**	**2,170**
		06/14/12	**502**	**1,550**
		09/28/12	**404**	**1,190**
		12/19/12	**401**	**1,000**
		01/18/13	102	**1,400**
		04/18/13	**567**	**1,250**
		07/18/13	**753**	**2,410**
		10/21/13	**578**	**2,010**
		03/07/14	**483**	**1,380**
		09/09/14	211	861
		03/11/15	**399**	**1,270**
		09/17/15	**791**	**1,780**
		03/31/16	**793**	**1,670**
		09/06/16	**359**	**1,300**
		03/07/17	**519**	**1,450**
		09/06/17	**618**	**1,560**
		04/13/18	**352**	933
		10/01/18	Dry	Dry
		02/05/19	ISW	ISW
		12/03/19	**450**	***2,000***
		04/21/20	***760***	***2,300***
		05/13/21	Dry	Dry
		11/17/21	***747***	***2,000***
		05/16/22	***687***	***1,700***
		11/15/22	ISW	ISW
		07/24/23	ISW	ISW
		11/06/23	Dry	Dry
		07/08/24	ISW	ISW
		10/28/24	ISW	ISW
MW-2		01/19/10	**857**	**2,180**
	DUP	01/19/10	**912**	**2,150**
		02/25/10	**901**	**2,440**
		03/01/11	**649**	**2,390**
	DUP	03/01/11	**627**	**2,400**
		04/13/11	**775**	**2,690**
		07/15/11	**384**	**3,220**
		12/22/11	**456**	**1,420**
		03/23/12	**614**	**2,640**
		06/14/12	**292**	**1,190**
		09/28/12	**467**	**1,490**
		12/20/12	**670**	**1,560**
		01/18/13	**486**	**1,620**
		04/19/13	**406**	**1,340**
		07/18/13	**582**	**2,000**
		10/21/13	**547**	**2,260**
		03/07/14	**483**	**1,280**
		09/09/14	**886**	**3,600**
		03/11/15	**1,390**	**4,440**
		09/17/15	**1,450**	**3,060**
		03/31/16	**1,050**	**1,880**
		10/06/16	**838**	**2,600**
		03/07/17	**636**	**1,790**
		09/06/17	**401**	**1,440**
		04/12/18	**657**	**1,460**
		10/02/18	**764**	**1,530**
		02/07/19	**840**	**1,820**
		12/03/19	**1,100**	**3,300**
		04/21/20	***1,400***	***5,500***
		05/13/21	**959**	**2,690**
		11/17/21	***494***	***1,700***
		05/17/22	***502***	***1,460***
		11/15/22	***640***	***1,550***
		07/25/23	***689***	***1,890***
		11/06/23	ISW	ISW
		07/08/24	Dry	Dry
		10/28/24	Dry	Dry

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-3		01/19/10	**734**	**1,920**
		02/25/10	**763**	**2,130**
		03/01/11	**944**	**2,670**
		04/13/11	**1,050**	**4,180**
	DUP	04/13/11	**1,070**	**3,650**
		07/15/11	**1,130**	**3,330**
	DUP	07/15/11	**1,120**	**3,480**
		12/22/11	**1,200**	**2,850**
		03/23/12	**1,380**	**4,220**
	DUP	03/23/12	**1,390**	**3,100**
		06/14/12	**1,290**	**4,220**
		09/28/12	**1,440**	**6,350**
	DUP	09/28/12	**1,430**	**5,650**
		12/20/12	**1,190**	**2,860**
		01/18/13	**1,210**	**3,850**
	DUP	01/18/13	**1,210**	**3,650**
	DUP	04/18/13	**928**	**2,310**
		04/19/13	**932**	**2,120**
		07/18/13	**1,120**	**3,340**
	DUP	07/18/13	**1,060**	**3,320**
	DUP	10/20/13	**1,140**	**3,380**
		10/21/13	**1,130**	**3,280**
		03/07/14	**1,280**	**2,890**
	DUP	03/07/14	**1,250**	**2,830**
		09/09/14	**807**	**2,850**
	DUP	09/09/14	**793**	**2,950**
		03/11/15	**785**	**2,440**
	DUP	03/11/15	**770**	**2,260**
		09/17/15	**354**	**1,110**
	DUP	09/17/15	**343**	**1,030**
		03/31/16	**279**	751
	DUP	03/31/16	**270**	703
		09/06/16	239	784
	DUP	09/06/16	236	759
		03/07/17	**505**	**1,170**
	DUP	03/07/17	**508**	**1,240**
		09/06/17	**703**	**1,700**
	DUP	09/06/17	**693**	**1,780**
		10/01/18	ISW	ISW
		02/05/19	ISW	ISW
		12/03/19	**580**	**1,800**
		04/21/20	**250**	***1,100***
		05/13/21	200	748
		11/17/21	210	672
		05/16/22	ISW	ISW
		11/15/22	ISW	ISW
		07/24/23	Dry	Dry
		11/06/23	Dry	Dry
		07/08/24	Dry	Dry
		10/28/24	Dry	Dry
MW-4		01/19/10	212	622
		02/25/10	110	586
		03/01/11	73	452
		04/13/11	70	446
		07/15/11	66	366
		12/22/11	67	526
		03/22/12	92	626
		06/14/12	65	460
	DUP	06/14/12	66	436
		09/28/12	134	661
		12/19/12	125	501
		01/17/13	133	690
		04/18/13	83	468
		07/18/13	63	421
		10/18/13	72	446
		03/06/14	110	528
		09/08/14	107	613
		03/10/15	192	**1,340**
		09/16/15	**433**	**1,400**
		03/30/16	187	865
		09/06/16	**400**	**1,490**
		03/07/17	**372**	**1,110**
		09/06/17	**503**	**1,240**
		04/12/18	126	702
		10/05/18	**410**	999
		02/06/19	219	720
		12/03/19	**1,200**	**3,500**

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-4 cont.		04/21/20	***1,600***	***6,200***
		05/13/21	***883***	***1,930***
		11/17/21	***1,350***	***3,310***
		05/17/22	***1,060***	***2,750***
	DUP	05/17/22	***1,090***	***2,670***
		11/15/22	***311***	450
		11/15/22	***288***	868
		07/24/23	Dry	Dry
		11/06/23	ISW	ISW
		07/08/24	ISW	ISW
		10/28/24	Dry	Dry
MW-5		03/22/12	199	**1,100**
		06/14/12	88	468
		09/28/12	130	691
		12/19/12	126	489
		01/17/13	123	587
		04/18/13	140	625
		07/18/13	118	470
		10/18/13	60	318
		03/06/14	116	514
		09/08/14	41	408
		03/10/15	36	364
		09/16/15	35	365
		03/30/16	39	244
		09/05/16	34	178
		03/07/17	36	677
		09/06/17	35	394
		04/12/18	42	352
		10/02/18	48	415
		02/05/19	98	805
		12/03/19	130	350
		04/23/20	140	470
		05/13/21	124	517
		11/17/21	136	530
		05/17/22	117	***1,640***
		11/15/22	148	568 Q
		07/24/23	167	629
		11/06/23	179	639
		07/08/24	189	***677***
		10/28/24	198 V	707
MW-6		03/22/12	243	**1,140**
		06/14/12	**566**	**1,670**
		09/28/12	**1,040**	**2,300**
		12/20/12	**961**	**2,210**
		01/18/13	**1,310**	**2,700**
		04/19/13	**528**	**1,590**
		07/18/13	**256**	970
		10/18/13	214	763
		03/07/14	**576**	**1,510**
		09/09/14	**491**	**2,190**
		03/10/15	**341**	**1,250**
		09/16/15	**262**	**1,020**
		03/31/16	**833**	**1,310**
		09/05/16	**959**	**2,840**
		03/07/17	**842**	**1,940**
		09/06/17	**606**	**1,550**
		04/12/18	202	636
		10/03/18	**363**	847
	DUP	10/03/18	**361**	861
		02/06/19	**701**	**1,260**
		12/03/19	220	690
	DUP	12/03/19	220	750
		04/21/20	***390***	***1,400***
		05/13/21	***507***	***1,090***
		11/17/21	***1,030***	***2,770***
		05/17/22	***533***	***1,410***
		11/15/22	***451***	***1,450***
		07/24/23	***907***	***2,790***
		11/06/23	***718***	***2,170***
		07/08/24	***542***	***1,650***
		10/28/24	***820***	***2,540***
	DUP	10/28/24	***805***	***2,530***

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-7		03/22/12	**251**	**1,210**
		06/14/12	196	926
		09/28/12	**258**	**1,000**
		12/19/12	192	683
		12/19/12	243	669
		01/18/13	221	776
		04/18/13	187	756
		07/18/13	178	736
		10/18/13	163	885
		03/06/14	188	763
		09/09/14	144	805
		03/10/15	140	676
		09/16/15	168	675
		03/30/16	**297**	422
		09/05/16	212	778
		03/07/17	185	984
		09/06/17	**284**	990
		04/12/18	117	667
		10/03/18	97	500
		02/06/19	131	545
		12/03/19	130	450
		04/21/20	120	670
		05/13/21	169	601
		11/17/21	351	970 J3
		05/16/22	***279***	957
		11/15/22	***313***	***1,070***
		07/24/23	***337***	***1,260***
		11/07/23	199	793
		07/08/24	168	681
		10/29/24	187	717
MW-8		03/22/12	192	910
		06/14/12	184	914
		09/28/12	210	814
		12/19/12	192	702
		01/17/13	205	923
		04/18/13	216	853
		07/18/13	219	885
		10/18/13	90	443
		03/06/14	222	819
		09/09/14	184	911
		03/10/15	198	772
		09/16/15	241	922
		03/31/16	**271**	712
		10/06/16	**291**	**1,220**
		03/07/17	**338**	**1,220**
		09/06/17	**298**	**1,120**
		04/13/18	**305**	923
	DUP	04/13/18	**290**	875
		10/02/18	**304**	854
		02/07/19	**438**	**1,130**
		12/03/19	330	**1,200**
		04/23/20	***550***	***2,200***
		05/13/21	***469***	***1,060***
		11/17/21	***536***	***1,530***
		05/16/22	***436***	***1,210***
		11/16/22	***442***	***1,510***
		07/24/23	***398***	***1,320***
		11/07/23	***421***	***1,300***
		07/08/24	***476***	***1,540***
		10/29/24	***455***	***1,550***
MW-9		09/06/16	87	462
		03/07/17	74	430
		09/06/17	163	658
		04/12/18	67	438
		10/03/18	59	449
		02/05/19	70	451
		12/03/19	**3,100**	**3,500**
		04/21/20	***3,400***	***6,000***
	DUP	04/21/20	***2,200***	***6,400***
		05/13/21	*111*	*490*
	DUP	05/13/21	*108*	*483*
		11/17/21	*110*	*489*
	DUP	11/17/21	*110*	*478*
		05/17/22	91.1	<500
		11/15/22	111	514
		07/24/23	92.2	499
	DUP	07/24/23	123	520
		11/06/23	105	484
		07/08/24	119	528
		10/28/24	117 J6	536

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-10		09/06/16	64	346
		03/07/17	106	463
		09/06/17	96	534
		04/12/18	47	441
		10/02/18	33	330
		02/05/19	99	510
		12/03/19	85	330
		04/23/20	89	410
		05/13/21	169	560
		11/17/21	166	502
		05/16/22	84.4	710
		11/15/22	181	701
		07/24/23	180	629
		11/06/23	191	700
		07/08/24	187	727
		10/28/24	173	721
MW-11		09/06/16	98	549
		03/07/17	**592**	**1,330**
		09/06/17	**390**	**1,040**
		04/13/18	75	487
		10/04/18	140	547
		02/06/19	**955**	**1,460**
		12/03/19	**580**	**1,500**
		04/23/20	***550***	**2,100**
		05/13/21	***267***	780
		11/17/21	***294***	853
		05/16/22	***319***	799
		11/16/22	***282***	992
		07/24/23	240	784
		11/07/23	25.7	946
		07/08/24	***313***	964
		10/29/24	230	953
MW-12		09/06/17	**1,160**	**2,710**
		04/13/18	**592**	**1,380**
		10/02/18	**477**	**1,200**
		02/07/19	**1,760**	**2,850**
	DUP	02/07/19	**1,730**	**2,570**
		12/03/19	**880**	**2,500**
		04/23/20	***1,100***	***3,600***
		05/13/21	***1,130***	***3,450***
		11/17/21	***1,530***	***2,570***
		05/16/22	***1,220***	***1,300***
		11/16/22	***1,350***	***2,640***
		07/24/23	***940***	***2,570***
		11/07/23	***1,630***	***2,360***
	DUP	11/07/23	***1,450***	***3,680***
		07/08/24	***1,100***	***4,140***
	DUP	07/08/24	***1,030***	***4,740***
		10/28/24	***1,130***	***2,870***
MW-13		09/06/17	206	810
		04/13/18	**306**	859
		10/02/18	93	439
		02/05/19	230	750
		12/03/19	160	490
		04/23/20	110	480
		05/13/21	156	624
		11/17/21	226	756
		05/16/22	161	663
		11/16/22	250	***2,490***
		07/24/23	***259***	720
		11/07/23	130	882
		07/09/24	65.2 J6	470
		10/29/24	91	***422***
MW-14		10/03/18	98	479
		02/06/19	76	468
		12/03/19	96	330
		04/21/20	120	560
		05/13/21	116	536
		11/17/21	153	549
		05/16/22	165	717
		11/15/22	***256***	885
		07/25/23	***341***	***1,140***
		11/07/23	***355***	***1,050***
		07/08/24	***443***	***1,320***
		10/29/24	***452***	***1,440***

Appendix D
Cumulative Summary of Groundwater Analaytical Results
Lovington Unit Water Plant
Lea County, New Mexico

ARCADIS

Sample I.D. No.	Replecate Sample I.D.	Date	NMWQCC Standards	
			Chloride 250 mg/L	Total Dissolved Solids 1,000 mg/L
MW-15		10/03/18	**325**	910
		02/07/19	**483**	**1,110**
		12/03/19	**330**	990
		04/23/20	***310***	***1,300***
		05/13/21	***336***	898
		11/17/21	***326***	976
		05/16/22	238	871
		11/16/22	***270***	790
		07/25/23	***278***	868
		11/07/23	***320***	910
		07/08/24	***268***	822
		10/29/24	222	717
MW-16		10/04/18	56	434
		02/06/19	215	698
		12/03/19	**430**	**1,300**
		04/21/20	***510***	***1,900***
		05/13/21	***778***	***1,910***
		11/17/21	***689***	***1,780***
		05/17/22	***697***	***1,620***
		11/15/22	***736***	***2,000***
		07/24/23	***755***	***1,850 J3***
		11/06/23	***776***	***2,140***
		07/08/24	***675***	***1,950***
		10/28/24	***380***	***1,560***
RW-1 (Waterflood Supply Well)		10/21/13	178	848

Notes:
1) RCRA Metals Analysis by Environment Protections Agency (EPA) Methods 6010B and 7470A.
2) Groundwater Quality by EPA Methods 160.1, 300.0, and 310.1.
3) Highlighted values indicate concentrations above NMWQCC Other Standards for Domestic Water Supply.
4) ***Bold and Italics*** values indicate concentrations above NMWQCC Standards for Domestic Water Supply.
5) [1] NMWQCC Human Health Standards Per NMAC 20.6.2.3103A.
6) [2] NMWQCC Other Standards for Domestic Water Supply Per NMAC 20.6.2.3103B.
7) < = Analyte not detected at or above the laboratory reporting limit
8) * = Likely an order of magnitude higher then actual result; however reported value was verified by the laboratory
9) D = Dilution factors are included in the final results. The result is from a diluted sample.
10) DUP = Duplicate sample
11) F1 = MS and/or MSD recovery exceeds control limits.
12) F2 = MS/MSD RPD exceeds control limits
13) J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.
14) mg/L = Milligrams per litre
15) NA= Not analyzed
16) NMWQCC = New Mexico Water Quality Control Commission
17) NMAC = New Mexico Administrative Code
18) MS/MSD = Matrix Spike/Matrix Spike Duplicate
19) Q = Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
20) RPD = Relative Percentage Difference
21) 9) V = The sample concentration is too high to evaluate accurate spike recoveries.

Appendix E

Analytical Reports

Pace Analytical®

ANALYTICAL REPORT

July 21, 2024

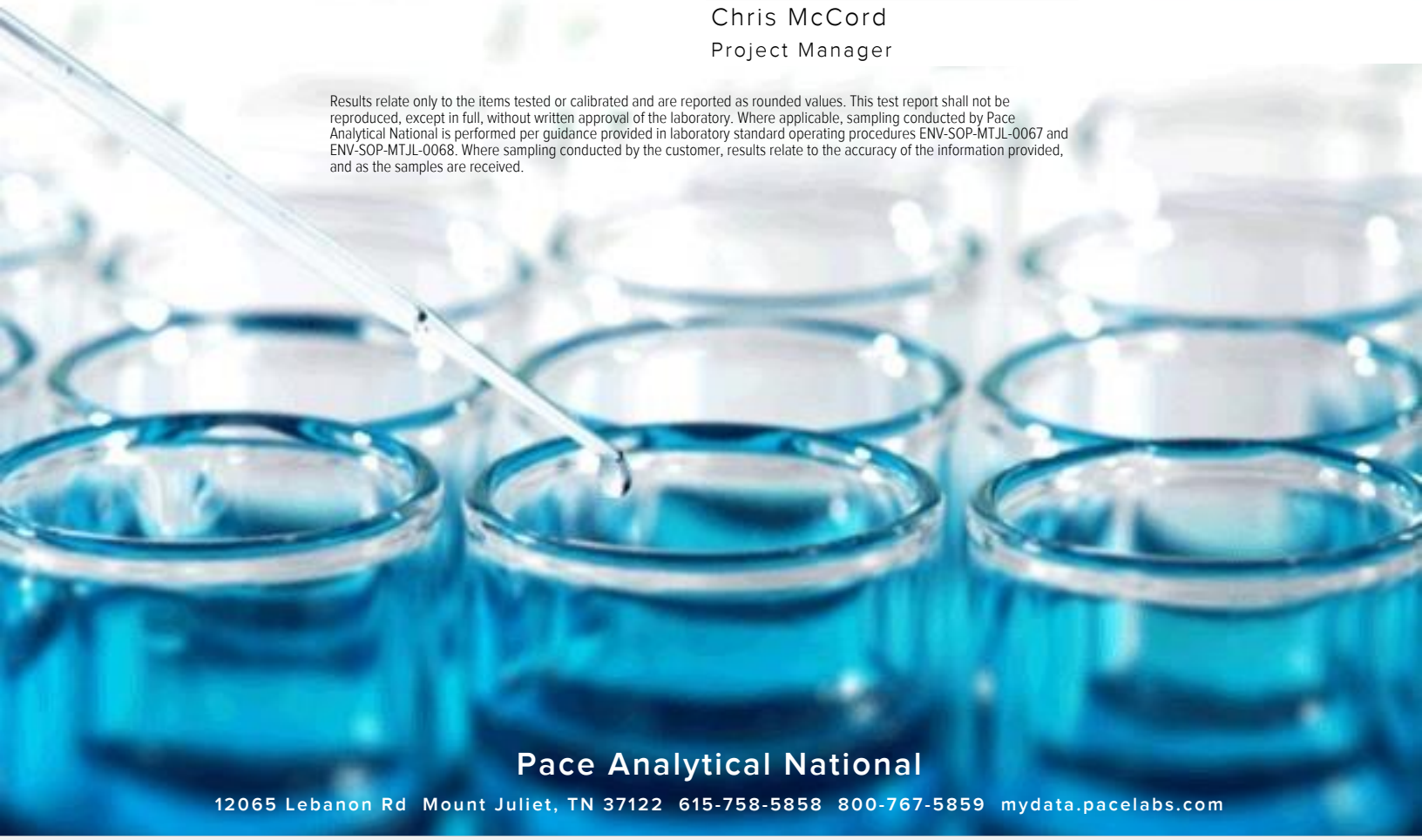
Arcadis - Chevron - NM

Sample Delivery Group:	L1755115
Samples Received:	07/10/2024
Project Number:	30189992-0004
Description:	Lovington Water Plant - UEM4869
Site:	LOVINGTON WATER PLANT
Report To:	Morgan Jordan
	1004 N Big Spring Street
	Suite 121
	Midland, TX 79701

Entire Report Reviewed By:

Chris McCord
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 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

MW-6-W-240708 L1755115-01 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 10:40 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	5	07/16/24 12:22	07/16/24 12:22	DLH	Mt. Juliet, TN

MW-16-W-240708 L1755115-02 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 11:00 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	10	07/16/24 12:32	07/16/24 12:32	DLH	Mt. Juliet, TN

MW-9-W-240708 L1755115-03 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 11:40 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	1	07/16/24 12:41	07/16/24 12:41	DLH	Mt. Juliet, TN

MW-5-W-240708 L1755115-04 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 12:30 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	1	07/16/24 12:51	07/16/24 12:51	DLH	Mt. Juliet, TN

MW-10-W-240708 L1755115-05 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 12:50 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	1	07/16/24 13:01	07/16/24 13:01	DLH	Mt. Juliet, TN

MW-15-W-240708 L1755115-06 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 13:10 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	5	07/16/24 13:10	07/16/24 13:10	DLH	Mt. Juliet, TN

MW-7-W-240708 L1755115-07 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 13:30 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	1	07/16/24 13:39	07/16/24 13:39	DLH	Mt. Juliet, TN

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

SAMPLE SUMMARY

MW-14-W-240708 L1755115-08 WW

Collected by: Daniel McGee | Collected date/time: 07/08/24 13:50 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320956	1	07/11/24 09:30	07/11/24 12:03	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	5	07/16/24 13:48	07/16/24 13:48	DLH	Mt. Juliet, TN

MW-8-W-240709 L1755115-09 WW

Collected by: Daniel McGee | Collected date/time: 07/09/24 10:00 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	5	07/16/24 13:58	07/16/24 13:58	DLH	Mt. Juliet, TN

MW-12-W-240709 L1755115-10 WW

Collected by: Daniel McGee | Collected date/time: 07/09/24 10:20 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	20	07/16/24 14:07	07/16/24 14:07	DLH	Mt. Juliet, TN

DUP-1-240709 L1755115-11 WW

Collected by: Daniel McGee | Collected date/time: 07/09/24 00:00 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	20	07/16/24 14:17	07/16/24 14:17	DLH	Mt. Juliet, TN

MW-13-W-240709 L1755115-12 WW

Collected by: Daniel McGee | Collected date/time: 07/09/24 10:40 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	1	07/16/24 14:26	07/16/24 14:26	DLH	Mt. Juliet, TN

MW-11-W-240709 L1755115-13 WW

Collected by: Daniel McGee | Collected date/time: 07/09/24 11:10 | Received date/time: 07/10/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2320958	1	07/11/24 08:50	07/11/24 14:23	DLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2322978	5	07/16/24 14:55	07/16/24 14:55	DLH	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.

Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1650		25.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	542		1.90	5.00	5	07/16/2024 12:22	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1950		50.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	675		3.79	10.0	10	07/16/2024 12:32	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	528		10.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	119		0.379	1.00	1	07/16/2024 12:41	WG2322978

MW-3-W-240708
Collected date/time: 07/08/24 12:30
L1755115

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	677		13.3	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	189		0.379	1.00	1	07/16/2024 12:51	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	727		13.3	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	187		0.379	1.00	1	07/16/2024 13:01	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	822		20.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	268		1.90	5.00	5	07/16/2024 13:10	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	681		13.3	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	168		0.379	1.00	1	07/16/2024 13:39	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1320		20.0	1	07/11/2024 12:03	WG2320956

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	443		1.90	5.00	5	07/16/2024 13:48	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1540		25.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	476		1.90	5.00	5	07/16/2024 13:58	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4140		100	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1100		7.58	20.0	20	07/16/2024 14:07	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	4740		100	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1030		7.58	20.0	20	07/16/2024 14:17	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	470		33.3	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	65.2	J6	0.379	1.00	1	07/16/2024 14:26	WG2322978

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	964		20.0	1	07/11/2024 14:23	WG2320958

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	313		1.90	5.00	5	07/16/2024 14:55	WG2322978

Method Blank (MB)

(MB) R4093596-1 07/11/24 12:03

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

L1755004-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1755004-01 07/11/24 12:03 • (DUP) R4093596-3 07/11/24 12:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1370	1480	1	7.54		10

Laboratory Control Sample (LCS)

(LCS) R4093596-2 07/11/24 12:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8400	95.5	85.0-115	

Method Blank (MB)

(MB) R4093604-1 07/11/24 14:23

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

L1754905-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1754905-04 07/11/24 14:23 • (DUP) R4093604-3 07/11/24 14:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	930	960	1	3.17		10

L1755166-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1755166-01 07/11/24 14:23 • (DUP) R4093604-4 07/11/24 14:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	540	521	1	3.58		10

Laboratory Control Sample (LCS)

(LCS) R4093604-2 07/11/24 14:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R4094707-1 07/16/24 11:16

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

L1754854-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1754854-02 07/16/24 11:44 • (DUP) R4094707-3 07/16/24 11:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.6	15.7	1	0.396		15

L1755115-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1755115-12 07/16/24 14:26 • (DUP) R4094707-6 07/16/24 14:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	65.2	65.4	1	0.168		15

Laboratory Control Sample (LCS)

(LCS) R4094707-2 07/16/24 11:25

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

L1754854-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1754854-02 07/16/24 11:44 • (MS) R4094707-4 07/16/24 12:03 • (MSD) R4094707-5 07/16/24 12:13

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	15.6	53.4	52.6	94.4	92.3	1	80.0-120			1.55	15

L1755115-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1755115-12 07/16/24 14:26 • (MS) R4094707-7 07/16/24 14:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	65.2	93.2	69.9	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
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
1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: **Morgan Jordan**

Email To: lauren.krueger@arcadis.com;douglas.jordan@a

Project Description: **Lovington Water Plant - UEM4869**

City/State Collected: Lovington, NM

Please Circle: PT MT (CT) ET

Phone: **432-687-5400**

Client Project # **30189992-0004**

Lab Project # **CHEVARCNM-LOV WP**

Collected by (print): Daniel McLane

Site/Facility ID # **LOVINGTON WATER PLANT**

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	Remarks	Sample # (lab only)
MW-6-W-240708	G	GW WW DW	—	7/8/24	1040	2	X	X		-01
MW-16-W-240708	G	GW WW DW	—	7/8/24	1100	2	X	X		-02
MW-9-W-240708	G	GW WW DW	—	7/8/24	1140	2	X	X		-03
MW-5-W-240708	G	GW WW DW	—	7/8/24	1230	2	X	X		-04
MW-10-W-240708	G	GW WW DW	—	7/8/24	1250	2	X	X		-05
MW-15-W-240708	G	GW WW DW	—	7/8/24	1310	2	X	X		-06
MW-7-W-240708	G	GW WW DW	—	7/8/24	1330	2	X	X		-07
MW-14-W-240708	G	GW WW DW	—	7/8/24	1350	2	X	X		-08
MW-8-W-240709	G	GW WW DW	—	7-9-24	1000	2	X	X		-09
MW-12-W-240709	G	GW WW DW	—	7-9-24	1020	2	X	X		-10

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 # L1755115
D216

Acctnum: **CHEVARCNM**
Template: **T199267**
Prelogin: **P1086728**
PM: **526 - Chris McCord**
PB:

Shipped Via:

* 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 6940

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
	7-9-24	1530	Grace Richards	
Relinquished by : (Signature) Grace Richards	Date: 7/9/24	Time: 1540	Received by: (Signature)	Temp: LOA 7 °C Bottles Received: 3.5 H 6.3 3.8 26
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) CKDaw	Date: 7/10/24 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Arcadis - Chevron - NM
1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Accounts Payable
1004 N Big Spring Street
Suite 121
Midland, TX 79701

Pres Chk

Report to: **Morgan Jordan**

Email To: **lauren.krueger@arcadis.com;douglas.jordan@a**

Project Description: **Lovington Water Plant - UEM4869**

City/State Collected: Lovington, NM

Please Circle: PT MT (CT) ET

Phone: **432-687-5400**

Client Project # **30189992-0004**

Lab Project # **CHEVARCNM-LOV WP**

Collected by (print): Daniel Mabee

Site/Facility ID # **LOVINGTON WATER PLANT**

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 125mlHDPE-NoPres	TDS 250mlHDPE NoPres	Analysis / Container / Preservative	Remarks	Sample # (lab only)
DUP-1-240709	G	~~GW~~ WW	—	7-9-24	—	2	X	X			- 11
MW-13-W-240709	G	~~GW~~ WW	—	7-9-24	1040	2	X	X			- 12
MW-11-W-240709	G	~~GW~~ WW	—	7-9-24	1110	2	X	X			- 13
		WW				2	X	X			
		WW				2	X	X			
		WW				2	X	X			
		WW				2	X	X			
		WW			BM 7-9-24	2	X	X			
		WW				2	X	X			
		WW				2	X	X			

Chain of Custody Page 2 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 # L1755115

Table #

Acctnum: **CHEVARCNM**
Template: **T199267**
Prelogin: **P1086728**
PM: **526 - Chris McCord**
PB:

Shipped Via:

* 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 6940

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	
	7-9-24	1530			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: EPA 7°C Bottles Received:	If preservation required by Login: Date/Time
	7/9/24	1540		3.5 10.3 = 3.8 26	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
				7/10/24	

Pace Analytical®

ANALYTICAL REPORT

November 04, 2024

Arcadis - Chevron - NM

Sample Delivery Group:	L1793979
Samples Received:	10/30/2024
Project Number:	30189992-0004
Description:	Lovington Water Plant - UEM4869
Site:	LOVINGTON WATER PLANT
Report To:	Morgan Jordan
	1004 N Big Spring Street
	Suite 121
	Midland, TX 79701

Entire Report Reviewed By: Haley Torrence

Haley Torrence
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 mydata.pacelabs.com

TABLE OF CONTENTS

MW-6-W-241028 L1793979-01 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 10:15 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	10	11/03/24 16:58	11/03/24 16:58	DLH	Mt. Juliet, TN

MW-16-W-241028 L1793979-03 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 10:45 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 17:08	11/03/24 17:08	DLH	Mt. Juliet, TN

DUP-1-W-241028 L1793979-04 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 00:00 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 17:17	11/03/24 17:17	DLH	Mt. Juliet, TN

MW-9-W-241028 L1793979-05 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 11:05 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	1	11/03/24 17:27	11/03/24 17:27	DLH	Mt. Juliet, TN

MW-5-W-241028 L1793979-06 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 12:00 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	1	11/03/24 18:05	11/03/24 18:05	DLH	Mt. Juliet, TN

MW-10-W-241028 L1793979-07 GW

Collected by: Daniel Mchoe | Collected date/time: 10/28/24 12:30 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	1	11/03/24 18:33	11/03/24 18:33	DLH	Mt. Juliet, TN

MW-14-W-241029 L1793979-08 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 09:50 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 18:43	11/03/24 18:43	DLH	Mt. Juliet, TN

MW-7-W-241029 L1793979-09 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 10:05 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	1	11/03/24 18:52	11/03/24 18:52	DLH	Mt. Juliet, TN

MW-15-W-241029 L1793979-10 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 10:15 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 19:02	11/03/24 19:02	DLH	Mt. Juliet, TN

MW-11-W-241029 L1793979-11 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 10:25 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 19:30	11/03/24 19:30	DLH	Mt. Juliet, TN

MW-8-W-241029 L1793979-12 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 10:35 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	5	11/03/24 19:40	11/03/24 19:40	DLH	Mt. Juliet, TN

MW-12-W-241029 L1793979-13 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 10:45 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	10	11/03/24 19:50	11/03/24 19:50	DLH	Mt. Juliet, TN

MW-13-W-241029 L1793979-14 GW

Collected by: Daniel Mchoe | Collected date/time: 10/29/24 11:00 | Received date/time: 10/30/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2392580	1	10/30/24 18:27	10/31/24 14:28	JAC	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2392400	1	11/03/24 19:59	11/03/24 19:59	DLH	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.

Haley Torrence
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2540		50.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	820		5.47	10.0	10	11/03/2024 16:58	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1560		25.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	380		2.74	5.00	5	11/03/2024 17:08	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2530		50.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	805		2.74	5.00	5	11/03/2024 17:17	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	536		10.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	117	J6	0.547	1.00	1	11/03/2024 17:27	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	707		13.3	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	198	V	0.547	1.00	1	11/03/2024 18:05	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	721		13.3	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	173		0.547	1.00	1	11/03/2024 18:33	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1440		20.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	452		2.74	5.00	5	11/03/2024 18:43	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	717		13.3	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	187		0.547	1.00	1	11/03/2024 18:52	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	717		13.3	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	222		2.74	5.00	5	11/03/2024 19:02	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	953		13.3	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	230		2.74	5.00	5	11/03/2024 19:30	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	1550		25.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	455		2.74	5.00	5	11/03/2024 19:40	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	2870		50.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	1130		5.47	10.0	10	11/03/2024 19:50	WG2392400

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	422		10.0	1	10/31/2024 14:28	WG2392580

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	91.0		0.547	1.00	1	11/03/2024 19:59	WG2392400

Method Blank (MB)

(MB) R4141377-1 10/31/24 14:28

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

L1793922-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1793922-01 10/31/24 14:28 • (DUP) R4141377-3 10/31/24 14:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	350	340	1	2.90		10

L1793979-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1793979-13 10/31/24 14:28 • (DUP) R4141377-4 10/31/24 14:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2870	2780	1	3.19		10

Laboratory Control Sample (LCS)

(LCS) R4141377-2 10/31/24 14:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8660	98.4	85.0-115	

Method Blank (MB)

(MB) R4141621-1 11/03/24 16:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.547	1.00

L1793979-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1793979-05 11/03/24 17:27 • (DUP) R4141621-3 11/03/24 17:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	117	117	1	0.189		15

L1793979-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1793979-06 11/03/24 18:05 • (DUP) R4141621-6 11/03/24 18:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	198	197	1	0.236		15

Laboratory Control Sample (LCS)

(LCS) R4141621-2 11/03/24 16:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.5	98.7	80.0-120	

L1793979-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1793979-05 11/03/24 17:27 • (MS) R4141621-4 11/03/24 17:46 • (MSD) R4141621-5 11/03/24 17:55

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	117	134	133	43.0	42.0	1	80.0-120	J6	J6	0.300	15

L1793979-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1793979-06 11/03/24 18:05 • (MS) R4141621-7 11/03/24 18:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	198	198	0.949	1	80.0-120	V

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

MDL	Method Detection Limit.
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
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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	LA000356
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

1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Arcadis, US. Inc.
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Pres Chk

Report to: **Morgan Jordan**

Email To: **lauren.krueger@arcadis.com;douglas.jordan@a**

Project Description: **Lovington Water Plant - UEM4869**

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: **432-687-5400**

Client Project # **30189992-0004**

Lab Project # **CHEVARCNM-LOV WP**

Collected by (print): Daniel Mcleod

Site/Facility ID # **LOVINGTON WATER PLANT**

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 125mlHDPE-NoPres	TDS 250mlHDPE NoPres	Remarks	Sample # (lab only)
MW-5-W-241028	G	GW		10-28-24	1015	2	X	X		-01
MW-16-W-241028		GW			1045	2	X	X		-02
DUP-1-W-241028		GW			—	2	X	X		-03
MW-9-W-241028		GW			1185	2	X	X		-04
MW-5-W-241028		GW			1200	2	X	X		-05
MW-10-W-241028		GW		10-28-24	1230	2	X	X		-06
MW-11-W-241029		GW		10-29-24	0850	2	X	X		-07
~~MW-7~~ MW-7-W-241029		GW			1005	2	X	X		-08
MW-15-W-241029		GW			1015	2	X	X		-09
MW-11-W-241029	G	GW		10-29-24	1025	2	X	X		-10

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 # L1243979

C240

Acctnum: **CHEVARCNM**
Template: **T199267**
Prelogin: **P1107860**
PM: **3842 - Haley Torrence**
PB:

Shipped Via:

* 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 5049

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10-29-24	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	10/29/24	1545	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp: °C Bottles Received: MS 4908703=1.1 26

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Date: 10/30/2024 Time: 0900

Company Name/Address:
Arcadis - Chevron - NM
1004 N Big Spring Street
Suite 121
Midland. TX 79701

Billing Information:
Arcadis, US. Inc.
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

Pres Chk

Report to: **Morgan Jordan**

Email To: **lauren.krueger@arcadis.com;douglas.jordan@a**

Project Description: **Lovington Water Plant - UEM4869**

City/State Collected: Lovington, NM

Please Circle: PT MT (CT) ET

Phone: **432-687-5400**

Client Project # **30189992-0004**

Lab Project # **CHEVARCNM-LOV WP**

Collected by (print): Daniel McLee

Site/Facility ID # **LOVINGTON WATER PLANT**

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 125mlHDPE-NoPres	TDS 250mlHDPE NoPres	Remarks	Sample # (lab only)
MW-8-W-241029	G	~~WW~~ GW		10-29-24	1035	2	X	X		-11
MW-12-W-241029	G	GW		10-29-24	1045	2	X	X		-12
MW-13-W-241029	G	GW		10-29-24	1100	2	X	X		-13

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
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SDG # L1243479

Table #

Acctnum: **CHEVARCNM**
Template: **T199267**
Prelogin: **P1107860**
PM: **3842 - Haley Torrence**
PB:

Shipped Via:

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

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10-29-24	1500	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10/29/24	1545	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received: IR#90.8+0.3=1.1 26

Date: 10/30/2024 Time: 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800
www.arcadis.com

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 456752
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Report accepted for record.	7/8/2025
amaxwell	Continue semi-annual groundwater sampling of all site wells to monitor chloride and TDS concentrations.	7/8/2025
amaxwell	Submit a C-141N for all future monitoring and sampling events.	7/8/2025